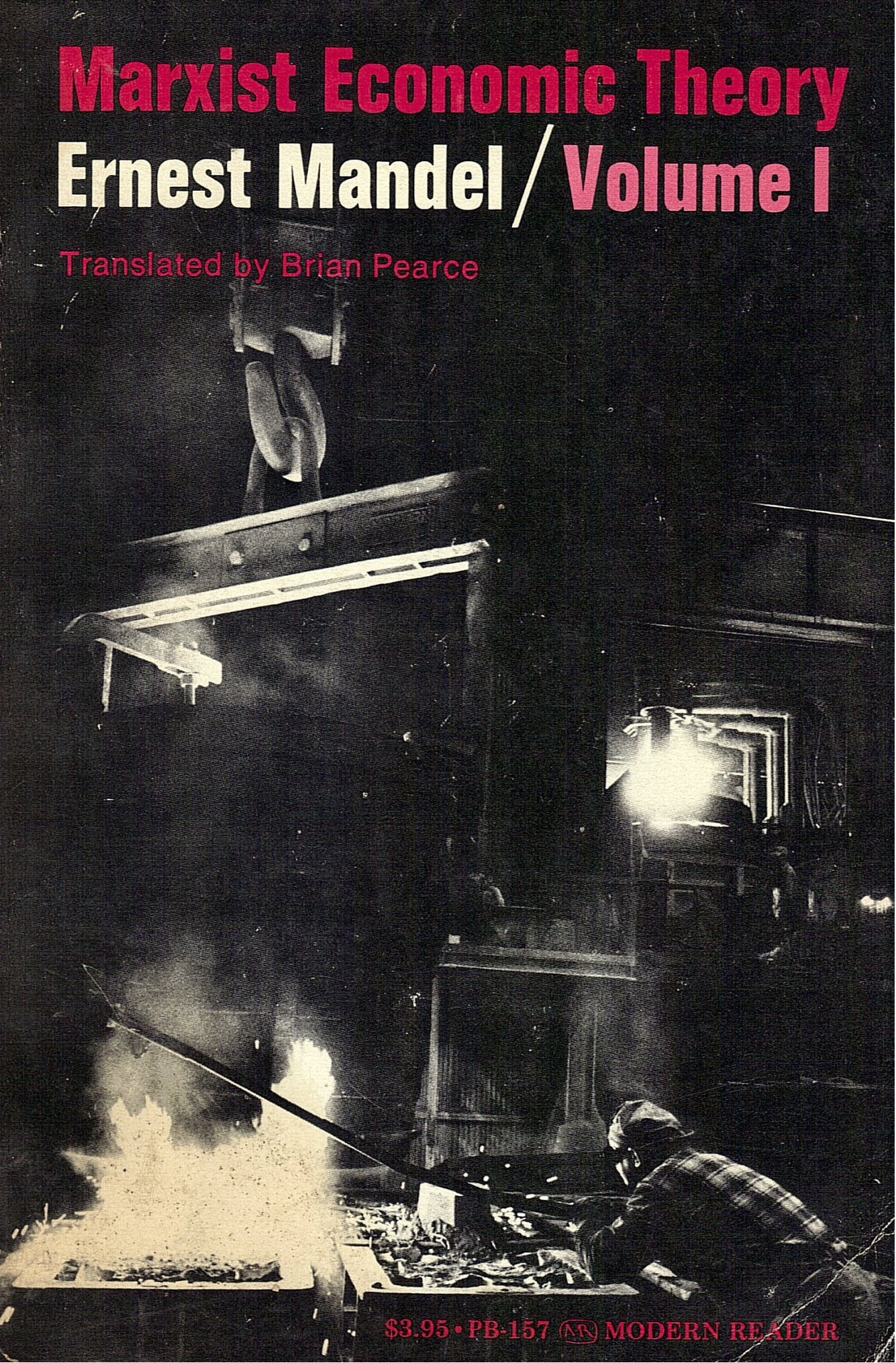
Marxist Economic Theory

Ernest Mandel / Volume I

Translated by Brian Pearce



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MARXIST ECONOMIC THEORY

Volume One

by

ERNEST MANDEL

TRANSLATED BY
BRIAN PEARCE

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PREFACE TO ENGLISH EDITION

THE manuscript of the French original of this work was completed in 1960, and the French edition appeared in the spring of 1962. The English edition thus reaches the reader seven years after the completion of the French manuscript. The author would have liked to bring the documentation of the book up to date and embody in it the conclusions of a number of important works which have been published since 1960, but he has not had the time to do this. He has confined himself to rewriting Chapter 15, devoted to the Soviet economy, so as to be able to include in it a critical analysis of the important changes that have taken place during the period which has elapsed. He has made slight amendments to some other chapters and extended some of the series of statistics given. Nevertheless, the English edition constitutes a revised and corrected edition, as compared with the original one, more especially because of the corrections which have been made to printers' errors and mistakes in the references.

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INTRODUCTION

THE attitude of the academic world towards Marxist economic theory is ruled by a strange paradox. Half a century ago, this theory was the subject of increasing theoretical interest and of fervent discussions in university circles, but it was said to lack all practical significance: a socialist economy "is impracticable", said the economists.[1] Today nobody denies that Marxist theory is capable of inspiring, and not unsuccessfully, the economic policy of states both large and small; but in academic circles it now meets only with indifference or contempt.* If it sometimes figures as the subject of more thorough studies, this happens not for its own sake but in so far as it is a sub-branch of the new "science" called "sovietology", or is included within a still stranger discipline, "marxology"...

Whoever regards as valid the Marxist method of investigation and the mass of results which it has produced—and the writer is unreservedly of that opinion—might obviously retort that there is nothing to be surprised at here. Is not academic science "in the service of the ruling class"? Is not the capitalist world "engaged in a fight to the death" with the "socialist camp"? Is not Marxist theory an essential weapon of this "camp"? Are not the servants of capitalism obliged to discredit systematically whatever is of service to their class foes? From this standpoint the discredit cast upon Marxism in the West is merely a manifestation of the class struggle itself, indirectly confirming the validity of the Marxist propositions. This method of reasoning runs the risk of producing the sort of dialogue between people who are impervious to each other's arguments which is what the exchange of "technical" invective between Marxist and psychoanalysts amounts to.

We shall not, of course, deny that there is a grain of truth in these allegations; but only a grain! If we consider objectively the entire realm in which ideas are shaped and defended, we shall not be able to deny that a fair number of cynics and careerists are to be met therein, people who sell their pens and their brains to the highest

* J. M. Keynes describes Marx's *Capital* as "an obsolete economic textbook . . . not only scientifically erroneous but without interest or application for the modern world."[2] A. A. Berle, Jr., considers that Marx's political economy is outworn and refuted.[3] François Perroux declares that "none of the 'chronic tendencies' [of capitalism, revealed by Marx] is logically demonstrable or can be proved by resort to scientific observation."[4] Raymond Aron writes: "Marxism no longer holds any place in the culture of the West, even in France and Italy, where an important section of the intelligentsia openly supports Stalinism. It would be vain to seek an economist worthy of the name who could be described as a Marxist in the strict sense of the word."[5] And so on.

bidder, or who subtly modify the direction taken by their thought if it risks prejudicing their promotion. It must further be added that for some decades now the Soviet Union, in possession of increasing material power, itself also wields an influence of the same sort.

No Marxist worthy of the name, faithful to the great scientific tradition of Marx himself, would be capable, however, of reducing the problem of the evolution of ideas to mere matters of corruption, whether direct (working through personal interest) or indirect (working through the pressure of the surrounding milieu). Marx and Engels emphasised more than once that the history of ideas follows its own dialectic, that ideas evolve on the basis of data bequeathed by one generation to another, and by the clash of competing schools of thought (cf. Engels's letter to Franz Mehring, 14th July, 1893). The social determination of this process operates essentially on material provided in this manner, with its own contradictions and possibilities of "explosion" in different directions.

Commenting on Marx's *Theorien über den Mehrwert* [Theories of Surplus Value], which were to have constituted Volume IV of *Capital*, Rudolph Hilferding correctly stressed that what we have here is a study of the dialectical evolution of ideas in accordance with their own logic and their internal contradictions *(Selbstentwicklung der nationalökonomischen Wissenschaft)*. Marx did not bring in the social factor except as the explanation of this evolution in the last analysis, and not at all as its immediate explanation.[6]

Now, Marxist tradition sums up the evolution of bourgeois political economy, that is, of "official" or "academic" political economy, in three stages, each of which coincides with a stage in the evolution of capitalism. In the stage when the bourgeoisie is rising to the position of ruling class, political economy undertakes to master economic reality, and we have the working out of the theory of labour-value, from William Petty to Ricardo. Then comes the stage when the bourgeoisie is involved in an even more acute class struggle with the proletariat, without, however, having finally eliminated the former ruling classes: this is the period when the range of possibilities contained in the inherent contradictions of the bourgeois theory of labour-value is wide open, so that we have the birth of the Marxist school, on the one hand, and that of the various post-Ricardian schools of bourgeois economic thought, on the other. Lastly, in the third stage, the bourgeoisie, having finally consolidated its ruling position, has no other struggle to wage than a defensive one against the proletariat. This is the period of the decline of bourgeois political economy. It ceases to be scientific and becomes merely apologetic. The theory of labour-value is replaced, first by "vulgar (eclectic) economics", and then by the marginalist school or by mixed schools which synthesise eclecticism and marginalism.

When one analyses the evolution of official economic thought during the last thirty years, one perceives, however, that this schema is not complete. Since the great crisis of 1929–1933 a *fourth* stage in the evolution of bourgeois political economy can easily be discerned: the stage of *purely pragmatic theory*. Mere apologetics is an effective device only so long as the system is threatened in the theoretical sphere alone. It becomes absurdly inadequate as soon as the system is in danger of collapsing in practice.

From that moment on, political economy throws overboard most of its purely academic concerns, in order to become *a technique for the practical consolidation of capitalism*. This is in fact the function it has fulfilled since the "Keynesian revolution" and the working out of the various techniques of econometry.*

Here we touch upon one of the roots of the indifference shown nowadays by "official" economists towards Marxism. In their minds, Marxism appears as just one of the schools of "the old political economy" which were centred on problems of micro-economics and were content to "reason in the abstract", without offering any recipes for increasing the volume of employment or remedying a deficit in the balance of payments. More than that, the only contemporary economists who accord Marx an honourable place in the history of economic ideas are precisely those who see him as an ancestor of the macro-economic theories now fashionable.† Some Marxists too try to show that Marx's merit consists above all in his having "foreshadowed" Keynes, the theory of economic cycles and the calculation of the national income . . .

But though interest in "pure" economic problems detached from immediate practical concerns has undeniably diminished in our times, marked as they have been by tremendous social upheavals,[11] those who claim to be Marxists are themselves partly responsible for the decline in interest in Marxist economic theory. The fact is that, for nearly fifty years, they have been content to repeat Marx's teaching, in summaries of *Capital* which have increasingly lost contact with contemporary reality. Here we touch upon the second root of the paradox mentioned at the beginning: the inability of the Marxists to repeat in the second half of the twentieth century the work that Marx carried through in the nineteenth.

This inability is due above all to political causes. It results from the subordinate position in which theory was kept in the U.S.S.R. and in the Communist Parties during the Stalin era. Theory was then the handmaid of day-to-day politics, just as in the Middle Ages philosophy was the handmaid of theology. From this situation, theory suffered

* See Chapter 18, the paragraphs: "The Keynesian revolution" and "Econometry, or the Triumph of pragmatism."

† Notably, Schumpeter,[7] Henri Guitton,[8] Condliffe,[9] Alvin Hansen,[10] etc.

a distortion towards pragmatism and apologetics which especially showed itself in economic theory. As the Stalin era was also marked by a ban on independent theoretical research, a sterile dogmatism was laid down on top of this apologetical distortion, thus forming a structure which is repulsive to the young generations both in the East and in the West. Thinking which has been stopped and distorted for 25 years* does not get back into its stride otherwise than slowly, especially if the social conditions which, in the last analysis, have caused this stoppage have not been fundamentally abolished.

Moreover, there is a secondary reason for this cessation of development in Marxist economic thought, not only in the U.S.S.R. and in the parties connected with it but also in the West, in all the Marxist schools which have remained independent of the Soviet Union. This derives from a misunderstanding regarding the Marxist method itself.

In a famous passage in his introduction to the *Contribution To The Critique Of Political Economy*, Marx explains the method that a scientific exposition of political economy must follow—proceeding from the abstract so as to reconstitute the concrete.[13] Populariser without number have been inspired by this passage, as also by the structure of the three volumes of *Capital*, to renew again and again, in abridged and often unsatisfactory form, the economic explanations which Marx elaborated last century.

Now, *one ought not to confuse method of presentation with origin of knowledge*. While Marx insists on the fact that the concrete cannot be understood without first being analysed into the abstract relationships which make it up, he equally stresses that these relationships themselves cannot be the outcome of a mere brilliant intuition or superior capacity for abstraction; they must emerge from the study of empirical data, the raw material of every science. To grasp what Marx's opinion really was, it is enough to put beside the passage on method in the introduction to the *Contribution To The Critique Of Political Economy* the following text from the second edition of *Capital*:

"Of course the method of presentation must differ in form from that of inquiry. *The latter has to appropriate the material in detail*, to analyse its different forms of development, to trace out their inner connexion. *Only after this work is done* can the actual movement be adequately described. If this is done successfully, if the life of the

* "In our country no fundamental creative work has been done in Marxism-Leninism. Most of our theoreticians busy themselves with turning over and over again old quotations, formulas and theses. What is a science without creative work? It is not so much science as scholasticism, a pupils' exercise, not a science; for science is above all creation, creation of something new and not repetition of what is old."[12]

subject-matter is ideally reflected as in a mirror, then it may appear as if we had before us a mere *a priori* construction." [Emphasis ours.][14]

It is thus apparent that a presentation which, in the middle of the twentieth century, restricts itself to summarising, more or less accurately, the chapters of *Capital*, written in the last century, is definitely insufficient, first and foremost from the standpoint of the Marxist method itself. Still less valid, of course, are the numerous peremptory declarations made by critics of Marxism, according to which the latter is out of date "because it relies on the data of the science of last century".

The scientifically correct position is obviously that which *endeavours to start from the empirical data of the science of today in order to examine whether or not the essence of Marx's economic propositions remains valid.** This is the method we have tried to follow in this book.

We must therefore issue a warning. The reader who expects to find numerous quotations from Marx and Engels or their chief disciples will close this book disappointed. Unlike all the writers of Marxist economic textbooks, we have *strictly abstained* (with very few exceptions) from quoting the sacred texts or interpreting these quotations. As against that, we quote abundantly from the chief economists, economic historians, ethnologists, anthropologists, sociologists and psychologists of our times, in so far as they express opinions on phenomena relating to the economic activity, past, present or future, of human societies. What we seek to show is that it is possible, on the basis of the scientific data of contemporary science, to reconstitute the whole economic system of Karl Marx. Furthermore, we seek to show that only Marx's economic teaching makes possible this synthesis of the totality of human knowledge, and above all a synthesis of economic history and economic theory, just as it alone makes possible a harmonious integration of micro-economic and macro-economic analysis.

The great superiority of the Marxist method compared with other schools of economic thought in fact consists of this dynamic synthesis

* Several writers, notably François Perroux, have frequently declared that the laws of capitalist development discovered by Marx have never been demonstrated by observation or by means of statistical data (see quotation *supra*). We try in this book to show that this is not so—making our point of departure, of course, Marx's own laws of development and not those which have been falsely attributed to him (such as that of "absolute impoverishment", of the permanent decline of real wages, or other such notions). We are curious to know whether the official economists will be able to refute the material we have brought together in this connexion, or if they will go on declaring dismissively that "Marx is out of date", thus revealing the same lack of scientific rigour as the pseudo-Marxists who confine themselves to repeating figures and examples from the last century.

of economic history and economic theory which it alone makes possible. Marxist economic theory ought not to be regarded as a completed outcome of past investigation but rather as the summation of a method, of the results obtained by using this method, and of results which are continually subject to re-examination. Such non-Marxist writers as Joseph Schumpeter and Joan Robinson have voiced their nostalgia for this synthesis.[15] Marxism alone has been able to achieve it. The Marxist method is morever inconceivable except as an *integration* of dialectical rationalism with empirical (and practical) grasping of the facts.*

The method must therefore be genetico-evolutionary, critical, materialistic and dialectical. *Genetico-evolutionary*, because the secret of no "category" can be discovered without study both of its origin and its evolution, which is nothing else but the development of its inner contradictions, that is to say, the revelation of its true nature.† *Critical*, because no "category" ought to be "taken for granted", neither the categories "society", "labour", and "necessary product" (subsistence) nor the categories "commodity", "exchange", "money" and "capital" whose secrets Marx himself revealed. In order to do this we have generally relied on the very profound though fragmentary remarks which are scattered through Marx's writings. Sometimes, however, we have had to proceed from scratch.

In any case, critical, genetico-evolutionary study of these "fundamental categories" has brought us face to face with anthropology, sociology and social psychology. So as not to put the reader off, and not to interrupt the logical course of the demonstration, we have put the bulk of this analysis in the penultimate chapter instead of the

* Cf. Marx in his letter to Engels dated 1st February, 1858. "He [Lassalle] will learn to his cost that to bring a science by criticism to the point where it can be dialectically presented is an altogether different thing from applying an abstract ready-made system of logic to mere inklings of such a system."[16]

† Cf. Hilferding: "What distinguishes Marx from all his predecessors is the social theory which underlies his system, the materialist conception of history. Not only because it implies understanding the fact that economic categories are equally historical categories; this understanding by itself is not yet the essential thing; but rather because it is only by revealing the law-governed nature of social life that one can reveal and show the mechanism of evolution, [that one can show] how economic categories are born, change and pass away, and how all that happens."[17] Here still, of course, there is conflict between the origin of knowledge and the method of its presentation. Before fully grasping the significance of a category in the phase in which it first appears one needs to have analysed it in its mature form. This is why Marx deliberately abandons the genetico-evolutionary method of presentation in the first chapters of *Capital*. Once, however, in possession of the key to the mystery, the contemporary researcher who wants to re-examine the validity of a category in the face of fresh empirical data has every reason to go over its evolution, starting from the beginning.

first.* An obvious dialectical temptation exists, moreover, to study the category of labour in the light of socialist society rather than in that of primitive society. Is it not in its negation, or rather in its surpassing, in the negation of its negation, that the nature of a phenomenon is seen in its full brilliance and richness?

Finally, the method is *materialistic* and *dialectical*, since the ultimate secret of any economic category is not to be found in men's heads; it is in every instance to be found in the social relations which men have been obliged to establish among themselves in the production of their material life. And this life, together with these relations, is examined both as an indissoluble entity and as a contradictory entity which evolves under the pressure of its own contradictions.

An objection will doubtless be urged against the method which the author has followed and the results to which it has led. It will be said that though he has certainly based himself on empirical data of contemporary science, he has done this selectively. He has chosen the data which fit into "his" preconceived system, and not *all* the data. He has interpreted *some* facts but not *the* facts.

This objection is valid only to the extent that the author has indeed tried to get away from the childish obsession for "writing history with *all* the details", that obsession which Anatole France ridicules so wittily in *Le Livre de mon Ami*. The task is not merely impossible in the material sense—several men's lives would be needed to read all the books and all the sources, in all the languages of the world, which relate to the economic activity of mankind—it is also quite pointless.

At the level of the various disciplines, valid syntheses have been worked out. The Marxist who wants to study the conclusions that are to be deduced from the primitive ways in which land was held in mediaeval France need not consult a lot of sources for this purpose; he can rely sufficiently on such works as Marc Bloch's *Les Caractères Originaux de l'Historie Rurale Française*.

It is moreover obvious that selecting one's facts is characteristic of every science, the natural sciences no less than the social sciences.†

* See Chapter 17, paragraphs: "Alienated labour, free labour, withering away of labour", "Social revolution, economic revolution and psychological revolution", and "Man's limitations?"

† "Science is not a set of facts but a way of giving order, and therefore giving unity and intelligibility to the facts of nature," declares Dr. Bronowski, chairman of the British Association.[18] "Unless I am seriously mistaken, the prevailing view among statisticians is that the theory to be tested determines the statistical procedure to be adopted . . . It is logically impossible, except by accident, to bring the testing of theories into the problem as one proceeds along the road, as a sort of by-product of a more general examination of facts," says the economist Metzler.[19] And the economists Edey and Peacock stress that "the facts with which we are concerned in most fields of knowledge are many in number and exhibit great complexity in their relationships one with

What is anti-scientific is not the unavoidable choice of "significant facts", it is the deliberate suppression (or falsification) of experiments and observations, so as to "deny" phenomena which do not fit into the schema. We have tried to avoid all subjectivism of that sort.

It remains true that the attempt we have made to "de-Westernise" the material, except that relating to nineteenth-century capitalism, *that is to say, to discover the common features of pre-capitalist economic categories in all the civilisations which have reached the stage of developed international trade*, may seem rash. We have neither the knowledge of languages nor the knowledge of history needed for success in undertaking such a task. Nevertheless, it is indispensable, both because the public to which Marxism appeals today is no longer essentially a Western public, and also because the popularisers of Marxism have brought a tremendous confusion into this sphere with their theory of the "successive stages" that society is supposed to have passed through, or must necessarily pass through, in all parts of the world, a theory which was explicitly repudiated by Marx himself (see especially his letters to the *Otechestvennie Zapiski*, November 1877, and to Vera Zasulich, 8th March, 1881.[21]*

This is therefore merely an attempt, at once a draft which calls for many corrections and an invitation to the younger generations of Marxists, in Tokyo and Lima, in London and Bombay, and (why not?) in Moscow, New York, Peking and Paris, to catch the ball in flight and carry to completion by team work what an individual's efforts can obviously no longer accomplish. If this work succeeds in causing such consequences, even if in the form of criticisms, the author will have fully achieved his aim, for he has not tried to reformulate or discover eternal truths, but only to show the amazing relevance of living Marxism. It is by collective synthesis of the empirical data of universal science that this aim will be attained, far more than by way of exegesis or apologetics.

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another. To know in detail all the facts relating to a particular study and to be able to trace their individual relationships would be normally impossible for any person, however industrious. It seems to be the natural reaction of the human mind in such circumstances to classify, with varying degrees of precision depending upon the man and the nature of the problem, the relevant facts and relationships into a sufficiently small number of categories for them to be comprehended and considered together, after which they can be used as a basis for judgments about the nature of the world and its inhabitants; and, perhaps, for purposes of prediction."[20]

* It must be noted, however, that, starting a few years ago, some historians in the Chinese People's Republic have seriously questioned this non-Marxist dogma of world-wide "successive stages", and, in particular, have returned to Marx's ideas regarding "Asiatic society".

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LABOUR, NECESSARY PRODUCT, SURPLUS PRODUCT

Labour, society, communication, language, consciousness, humanity

MAN alone, of all species, is unable to survive by adapting himself to the natural environment, but has instead to try to bend this environment to his own needs.[1] Labour, an activity at once conscious and social, born of the possibility of communication and of spontaneous mutual aid between the members of this species, is the means whereby man acts upon his natural environment.

The other animal species adapt themselves to a particular environment through development of specialised organs. Man's specialised organs, a hand with an opposable thumb and a developed nervous system, do not give him the means of directly obtaining his food in a particular natural environment. But they enable him to use tools and, through the development of language, to construct a social organisation which ensures the survival of the human race in an indefinite number of different natural environments.* Labour, social organisation, language, consciousness, are thus the distinctive characteristics of man, inseparably linked each with the others and mutually determining one another.

The tools without which man cannot produce, that is, in the first place, obtain the food needed for the survival of the species, appear at first as artificial prolongations of his natural organs. "Man needs tools to make up for the inadequacy of his physiological equipment."[3] At the dawn of mankind, these tools were very crude: sticks, chipped stones, sharpened pieces of bone and horn. In fact, prehistory and ethnology classify the primitive peoples in accordance with the raw materials from which they make their chief tools. This classification usually begins with the epoch of chipped stone, though among the prehistoric inhabitants of North America an age of bone seems to have preceded the stone age properly so called.

* "A creature which has become perfectly adapted to its environment, an animal whose whole capacity and vital force is concentrated and expended in succeeding here and now, has nothing left over with which to respond to any radical change . . . It can therefore beat all competitors in the special field but equally on the other hand should that field change it must become extinct. It is this success of efficiency which seems to account for the extinction of an enormous number of species."[2]

Production techniques emerge progressively from the continual repetition of the same work-movements. The most important technical discovery in human prehistory was undoubtedly that of the production and maintenance of fire. Though there are no longer any primitive tribes which were ignorant of fire before their contact with external civilisation,* innumerable myths and legends testify to an age without fire, followed by a period in which man did not yet know how to keep it going.

Sir James Frazer brought together the myths about the origin of fire of nearly two hundred primitive peoples. All show the great importance at the dawn of mankind of the discovery of a technique for generating fire and conserving it.[5]

Necessary Product

It is by labour that men satisfy their basic needs. Food, drink, rest, protection against inclemencies and excesses of cold or heat, ensuring the survival of the species by procreation, exercise for the muscles—these are the most elementary needs, according to the ethnologist Malinowski. All these needs are satisfied *socially*, that is to say, not by a purely physiological activity, by single combat between the individual and the forces of nature, but by activity which results from mutual relations established between the members of a human group.[6]

The more primitive a people the bigger is the share of its labour, and indeed of its entire existence, absorbed by seeking and producing food.[7]

The most primitive methods of food production are the gathering of wild fruit, the catching of harmless little animals, and elementary forms of hunting and fishing. A people living at this primitive stage, such as the aborigines of Australia or, better, the primitive inhabitants of Tasmania, who completely disappeared three-quarters of a century ago, know neither permanent dwellings nor domestic animals (except sometimes the dog), neither weaving of clothes nor making of containers for food. They have to traverse a very extensive territory in order to gather together sufficient food. Only the old men who are physically incapable of constant movement may be to some extent released from direct gathering of food, so as to busy themselves with making tools. The majority of the most backward communities that still survive today, such as the inhabitants of the Andaman Islands in the Indian Ocean, the Fuegians and Botocudos of Latin America, the Pigmies in Central Africa and Indonesia, the Kubu savages in Malaya, lead lives similar to those of the Australian aborigines.[8]

* In the sixteenth century the explorer Magellan came upon communities in the Mariana Islands in the Pacific who did not know fire. In the eighteenth century, Steller and Krasheninnikov visited the Kamchadales, inhabiting the Kamchatka Peninsula, who also were ignorant of fire.[4]

If it be accepted that mankind has been in existence for a million years, at least 980,000 years of that period were spent in a state of extreme poverty. Famine was a permanent threat to the survival of the species. The average production of food was inadequate to meet the average need for consumption. The keeping of reserves of food was unknown. Infrequent periods of plenty and good luck led to substantial wasting of food.

"The Bushmen, Australians, Veddahs of Ceylon and Fuegians hardly ever hoard for the future. The Central Australians want all their food at once, so as to have a good gorge; then they are resigned to 'go one big fella hungry' . . . When they move they leave their stone utensils lying about. If they need more they make them . . . A single tool is enough, until it wears out, for a Papuan; he has no idea of providing a successor before-hand . . . Insecurity prevented hoarding all through the primitive time. Periods of repletion and of semi-starvation regularly succeeded one another."[9]

This "improvidence" is not due to intellectual shortcomings in primitive man. It is rather the result of thousands of years of insecurity and endemic famine, which urged him to gorge himself to the full whenever opportunity occurred, and which did not allow him to work out a technique for hoarding food. Production as a whole provides the *necessary product*, that is to say, food, clothing, the community's dwelling-place, and a more or less stable stock of tools serving to produce these good things. There is no permanent surplus.

Beginning of the social division of labour

So long as an adequate supply of food is not ensured, men cannot devote themselves consistently to any other economic activity than the production of food. One of the first explorers of Central America, Cabeza de Vaca, encountered Indian tribes who knew how to make straw rugs for their dwellings but never undertook this work.

"They wish to give their full time to getting food, since when otherwise occupied they are pinched with hunger."[10]

Since all the men devote themselves to producing food, no true social division of labour, no specialisation into different *crafts*, can occur. For certain peoples it is quite incomprehensible that everybody should not be able to make all the objects in current use. The Indians of Central Brazil were always asking the German explorer Karl von der Steiner whether he had made his trousers, his mosquito-net and many other things himself. They were very surprised when he told them that he had not.[11]

Even at this level of social evolution there are individuals gifted with a special aptitude for a particular kind of work. But the economic situation, that is to say, the lack of a permanent reserve of foodstuffs, does not yet permit them to exercise these special aptitudes exclusively.

Describing the activities of the islanders of Tikopia, in the Solomon archipelago in the Pacific, Raymond Firth writes:

"Every Tikopia man is an agriculturist and a fisherman, and to some extent a worker in wood; every woman weeds plantations, uses her scoop net on the reef, beats bark-cloth and plaits mats. Such specialisation as exists is the development of extra capacity in a craft and not the practice of the craft to the exclusion of others."[12]

What is true of comparatively advanced society, where agriculture is already known, is even truer of a still more primitive society.

But the social organisation described by Raymond Firth reveals at the same time the existence of a rudimentary division of labour that can be observed at all the stages of mankind's economic development: *the division of labour between the sexes*. Among the most primitive peoples, the men devote themselves to hunting, the women gather fruit and harmless little animals. Among communities which have developed a little, certain of the techniques acquired are employed exclusively either by the men or by the women. The women undertake those activities which can be carried on near the dwelling-place: maintaining the fire, spinning, weaving, pottery-making, etc. The men go further out, hunting larger game, and work up basic raw materials into tools, using wood, stone, ivory, horns and bones.

The absence of such a division of labour as would lead to the formation of specialised crafts prevents the working out of techniques requiring a long apprenticeship and special knowledge, though it makes possible a more harmonious development of the body and of human activity. Those peoples who do not know as yet the division of labour, but who have been able to overcome famine and the worst epidemics, thanks to favourable natural conditions (Polynesians, some North American Indians before the white conquest, etc.), have developed a human type admired by modern civilised man.

First appearance of a social surplus product

The slow accumulation of inventions, discoveries and knowledge makes it possible to increase the production of food while reducing the physical effort needed from the producers. This is the first sign of an *increase in productivity of labour*. The invention of the bow and arrow, along with that of the harpoon, makes it possible to improve the technique of hunting and fishing and thus to regularise mankind's supply of foodstuffs. Henceforth, these activities become more important than the gathering of wild fruit, which is now nothing more than a supplementary economic activity. The skins and hair of animals regularly caught, along with their horns, bones and tusks, become raw material which man possesses the leisure to work up. The discovery of particularly rich hunting-grounds or fishing-beaches makes possible transition from the nomadic state to that of hunters or fisher-

men who are semi-settled (with seasonal alternation of dwelling-place) or even completely settled. This is the position with communities such as the Minkopies (inhabiting the shores of the Andaman Islands), the Klamath (Indians of the Californian coast), some tribes in Malaya, etc.[13] The transition to a settled way of life, whether temporary or permanent, made possible by the development of the productivity of labour, in turn makes it possible to increase the latter. It now becomes feasible to accumulate tools over and above the limited amount that a migratory community could carry with it.

Thus there gradually appears, alongside the product necessary for the survival of the community, a first permanent surplus, a first form of *social surplus product*. Its essential function is to make possible the formation of food reserves, so as to prevent or at least to mitigate the periodical return of famine. Through thousands of years primitive peoples tried to solve the problem of storing food. Numerous tribes found the solution only through contact with higher civilisations. Thus, those communities which have remained nomadic hunters and who as a rule do not produce any regular surplus, are all ignorant of salt, the most effective material for keeping meat.[14]*

The second original function of the social surplus product is to enable a more advanced division of labour to take place. From the moment that the tribe has more or less permanent reserves of food at its disposition, some of its members can devote a more considerable part of their time to producing objects which are not for eating: tools, ornaments, containers for food. What was previously just a personal inclination or talent for a certain technique now becomes a specialisation, the embryo of a craft.

The third original function of the social surplus is to make possible a more rapid increase of population. Conditions of semi-famine practically limit the population of any tribe to able-bodied men and women. The tribe cannot keep alive more than a minimum of small children. Most primitive peoples know about and extensively apply artificial birth-control, which is absolutely indispensable because of the inadequate food supply.[15] Only a limited number of sick or disabled people can be looked after and kept alive. Infanticide is commonly practised. Prisoners of war are usually killed, if not eaten. All these efforts to restrict the growth of population do not show that primitive man is innately cruel, but testify rather to an effort to avoid a greater danger, the disappearance of the entire people for lack of food.

From the moment, however, when a more or less permanent food

* Before the discovery of the preservative functions of salt, a discovery which was decisive for the establishment of permanent reserves of protein, a wide variety of methods were used to preserve meat. It was dried, smoked, kept in bamboo vacuum containers, etc. All these methods have been found inadequate for long-term preservation.

reserve makes its appearance, a new equilibrium between the food available and the number of the population can be achieved. Births increase, and with them the number of children surviving infancy. Sick people and the aged can live longer, increasing the average age of the tribe. The density of the population on a given territory will increase with the productivity of labour, and this is an excellent index of economic and social progress.[16] With the growth of the population and the specialisation of its labour the productive forces at mankind's disposal are increased. The appearance of a social surplus is an essential condition for this increase.

The neolithic revolution

The formation of a permanent surplus of foodstuffs is the material basis for the carrying through of the most important economic revolution man has known since his appearance on earth: the beginning of agriculture and of the domestication and rearing of animals. In accordance with the period of prehistory during which this revolution occurred, the period of polished stone, or neolithic period, it is known as the neolithic revolution.

Agriculture and cattle-raising presuppose the existence of a certain surplus of food, and this for two reasons. First, because their technique demands the utilisation of seed and animals for purposes not directly concerned with food consumption, so as to produce more plants and more meat at a later stage. Peoples who have lived for thousands of years on the brink of famine do not easily agree to diverting towards a more distant goal whatever is immediately edible, unless they possess other stocks of food.*

Besides, neither agriculture nor cattle-raising immediately produce the food needed for the tribe's existence, and a food reserve is needed to cover the period between seed-time and harvest. For these reasons, neither primitive agriculture nor cattle-raising could be adopted straight away as the principal production system of a people. They make their appearance by stages, being at first regarded as activities secondary to hunting and the gathering of fruit, and they long continue to be supplemented by these activities, even when they have become the basis of the people's livelihood.

It is generally thought that the raising of domestic animals (beginning: *c.* 10,000 B.C.) came later than the first attempts at systematic agriculture (beginning: *c.* 15,000 B.C.), though the two activities may appear simultaneously or, with certain peoples, the order of appearance may even be reversed.[18] The most primitive form of agriculture,

* "Agriculture calls for . . . an ascetic self-discipline which does not follow automatically from a knowledge of tools," Gehlen points out. The author wonders whether, for this reason, the first crops were perhaps protected by being exclusively devoted to religious purposes.[17]

still practised today by a number of peoples of Africa and Oceania, consists of scratching the surface of the soil with a pointed stick, or digging it with a hoe. Since the soil is rapidly exhausted by such methods of cultivation, it is necessary to leave the land thus worked, after a few years, and occupy fresh land. Several peoples, for example, the mountain tribes of India, acquire this fresh land for cultivation by burning the jungle, the ashes forming a natural fertiliser.[19]

The neolithic revolution brings the production of means of subsistence, for the first time since the dawn of mankind, under man's direct control: this is its main importance. The gathering of fruit, hunting and fishing are *passive* methods of providing food. They reduce, or, at least, maintain at a given level, the quantity of resources that nature puts at the disposal of man on a given territory. Agriculture and cattle-raising, however, are *active* methods of providing food, since they increase the natural resources available to mankind, and create new ones. With the same expenditure of labour, the amount of food at man's disposal can be increased tenfold. These methods thus constitute a tremendous increase in the social productivity of human labour.

The neolithic revolution also gives a powerful stimulus to the development of tools. By creating a *permanent surplus* it creates the possibility of a professional body of craftsmen.

"The preliminary condition for the formation of craft (technical) abilities is a certain amount of leisure which can be taken from the time devoted to producing means of subsistence."[20]

The beginning of agriculture and the raising of domestic animals leads, moreover, to the first great social division of labour: pastoral peoples appear alongside agricultural peoples.

Undoubtedly, the decisive progress due to the practice of agriculture must be ascribed to women. The example of the peoples who still exist as primitive agriculturists, as well as numberless myths and legends,* confirm that women, who in primitive society devote themselves to gathering fruit, and usually remain close to the dwelling-place, were the first to sow the seeds of the fruit they had collected, so as to facilitate the provision of food for the tribe. The women of the Indian Winnebago tribe were, moreover, compelled to *hide* the rice and maize destined for sowing, as otherwise the men would have eaten them. In close connexion with the development of agriculture by the women there appear, among numerous primitive agricultural peoples, religions based on the worship of goddesses of fertility.† The

* "The appellation *pasigadong*—the means of getting *gadong*, or food—is jocosely applied by the Batak to his wife . . ."[21]

† Cf. the following observation by Robert Graves: "The whole of neolithic Europe, to judge from surviving artifacts and myths, had a remarkably homogeneous system of religious ideas, based on worship of the many-titled Mother-goddess, who was also known in Syria and Libya. Ancient Europe had no

institution of the matriarchate, the existence of which can be shown among a number of peoples at the same level of social development, is also connected with the part played by women in the creation of agriculture. Sumner and Keller and Kritz Heichelheim[24] list a large number of proved instances of matriarchate among primitive agricultural peoples.

Co-operative organisation of labour

Hobhouse, Wheeler and Ginsberg studied the mode of production of all the primitive peoples who were still surviving at the beginning of the twentieth century. They found that all the tribes who know only a rudimentary form of agriculture and cattle-raising—and, *a fortiori*, all those peoples who have remained at a lower stage of economic development—are ignorant of the use of metals and possess only a very crude technique of pottery-making and weaving.

Archaeological data confirm those of ethnography. In the neolithic epoch we find in Europe only the crudest forms of pottery. In India, in North China, and in North and West Africa, we find traces of similar societies between the sixth and fifth millennia B.C.[25] The non-existence of advanced pottery or weaving indicates the absence of a fully separate body of craftsmen. The surplus that agriculture and cattle raising supplies to society does not yet make it possible to free the craftsman completely from the task of producing his own food.

Thus, even today, in the Chinese village of Taitou:

"None of the artisans . . . makes his living entirely from his trade . . . All the masons, carpenters, weavers, workers in the small foundry, the village schoolteacher, the crop watcher, and the several village officers work on their land with their families during the sowing and harvesting seasons or whenever they happen not to be engaged in their professional work."[26]

Just as at more primitive stages of economic development, society remains based on the co-operative organisation of labour. The community needs the labour of every one of its members. It does not yet produce a surplus sufficiently large for this to become private property without jeopardising the survival of the whole community. The customs and code of honour of the tribe are opposed to any *individual* accumu-

gods. The Great Goddess was regarded as immortal, changeless, and omnipotent; and the concept of fatherhood had not been introduced into religious thought. She took lovers, but for pleasure, not to provide her children with a father. Men feared, adored, and obeyed the matriarch; the hearth which she tended in a cave or hut being their earliest social centre, and motherhood their prime mystery."[22] The Indian writer Debiprasad Chattopadhyaya has made an extensive analysis of the relationships between the part played by women as the first cultivators of the soil, the matriarchate, and the magico-religious cult of goddesses of fertility, on the basis of the history and literature of his country.[23]

lation in excess of the average. Differences in individual productive skill are not reflected in distribution. Skill as such does not confer a right to the product of individual work, and the same applies to more diligent work.[27]

"Maori distribution," writes Bernard Mishkin, "was fundamentally dominated by one aim: to meet the needs of the community. No one could starve so long as anything remained in the community storehouses."[28]

Special institutions were developed—for instance, the ceremonial exchange of gifts and the organisation of feasts after the harvest—to ensure an equitable sharing of foodstuffs and other necessary products among all the members of the community. Describing the feasts organised among the Papuan people of Arapesh, Margaret Mead considers that this institution "is actually an effective measure against any one man's accumulating wealth disproportionate to the wealth accumulated by others."[29]

Georges Balandier writes to the same effect regarding the Bakongo tribes in Equatorial Africa:

"An institution like the one called *malaki* throws light on this ambiguous situation. At the start, it was in the nature of an annual feast (in the dry season) which extolled the unity of the kindred by honouring ancestors, and made possible the reinforcement of alliances . . . On this occasion, a quantity of good things which had been accumulated during the year were consumed collectively in a true atmosphere of rejoicing and celebration. Thrift operated, upheld by the heads of the kindreds, in the form of *renewal of relationships of consanguinity and alliance*. The *malaki* functions, by its regular periodicity and the amount of wealth needed for it, as one of the driving forces and regulators of the Bakongo economy . . . It testifies to a moment (hard to date) in economic evolution when the surplus of products presented men with new problems: their products came between them and distorted the system of personal relations."[30]

James Swann, describing the customs of the Indians of Cape Flattery (Washington State, U.S.A.), says that whoever has produced a plentiful supply of food, in whatever form, customarily invites a series of neighbours or members of his family to come and consume it with him. If an Indian has gathered sufficient stocks of food, he has to give a feast, which goes on until this stock is exhausted.[31] A society of this kind puts the accent on the quality of *social solidarity* and regards as immoral an attitude of economic competition and ambition for individual enrichment.

Solomon Asch, who has studied on the spot the customs of the Hopi Indians, observes:

"All individuals must be treated alike; no one must be superior and no one must be inferior. The person who is praised or who praises

himself is automatically subject to resentment and to criticism . . . Most Hopi men refuse to be foremen . . . The play behaviour of children is equally instructive in this respect. From the same source I learned that the children, young and old, are never interested in keeping score during a game. They will play basket-ball by the hour without knowing who is winning or losing. They continue simply because they delight in the game itself . . ."[32]

The co-operative organisation of labour implies, on the one hand, the carrying-out in common of certain economic activities—building huts, hunting the larger animals, making paths, felling trees, breaking up new land—and, on the other, mutual aid between different families in daily life. The American anthropologist John H. Province has described such a work-system in the Siang Dyak tribe, who live in Borneo. All members of the tribe, including the witch-doctor, work alternately on their own paddy field and on that of another family. They all go hunting and firewood-collecting and all carry out domestic tasks.[33]

Margaret Mead describes a similar system prevailing among the Arapesh, a mountain people of New Guinea.[34] The co-operative organisation of labour in its pure form means that no adult holds back from participating in labour. It thus implies the absence of a "ruling class". The work is planned by the community in accordance with custom and with ancient rites based on a deep knowledge of the natural environment (climate, composition of the soil, habits of game, etc.). The chief, if there is one, is merely the embodiment of these rites and customs, the correct fulfilment of which he ensures.

Labour co-operation continues, as a rule, throughout the slow process, prolonged through hundreds (if not thousands) of years, of disintegration of the village community.[35] It must be stressed that the custom of carrying out tasks in common which is found very late in class-divided societies is doubtless the origin of *corvée*, that is, of unpaid extra work which is carried out on behalf of the State, the Temple, or the Lord. In the case of China, the evolution from one to the other is perfectly clear.

Melville J. Herskovits[36] mentions a very interesting transitional case in Dahomey. *Dókpwê*, communal work, is usually carried out for the benefit of every native household. But, contrary to tradition, and to official statements, a request for help from a relatively prosperous household is answered before one from a poor household. Furthermore, the head of the *dókpwê* has become a member of the ruling class. The Dahomeyans are, moreover, aware of the evolution which his taken place, and themselves told Herskovits the following:

"The *dókpwê* is an ancient institution. It existed before there were kings. In the olden times there were no chiefs and the *dókpwêgâ* [directing the communal work] was in command of the village. The male members of the village formed the *dókpwê* as today, and the

cultivation of the ground was done communally. Later, with the coming of chiefs and kings, disputes arose as to their respective authority . . ."[37]

According to Nadel, in the Nigerian kingdom of Nupe, communal work, called *egbe*, is carried out first (and above all!) on the lands of the chiefs; Joseph Bourrilly mentions a similar evolution of the *touiza*, as co-operative work is called among the Berbers.[38]

Primitive occupation of the soil

At the moment when tribes start to practise agriculture they are usually organised on the basis of kinship. The oldest form of social organisation seems to be that of the *horde*, such as still exists among the aborigines of Australia.

"[A horde] is a body of persons who jointly possess, occupy and exploit a certain defined area of country. The rights of the horde over its territory can be briefly indicated by saying that no person who is not a member of the horde has the right to any animal, vegetable or mineral product from the territory except by invitation or consent of members of the horde."[39]

Later, the large family, the clan, the tribe as a confederation of clans, the confederation of related tribes, are the normal forms of organisation of the primitive peoples, at the moment when they begin to apply themselves to agriculture. It is therefore not surprising that the primitive occupation of the soil, and the establishment of one or other form of authority (ownership) over the latter, are first and foremost influenced by this predominant form of social organisation.

So long as the people concerned have not yet reached the stage of intensive agriculture, with manuring and irrigation, the occupation of the soil usually takes the form of occupation of a village by a large family, a group of men and women united by kinship. In Northern Rhodesia, Audrey I. Richards notes that the Bemba people "live in small communities, the average village consisting of 30 to 50 huts . . . Each village is a kinship unit under the rule of a headman . . ."[40]

Among the settled Berbers of Morocco, "the typical state is not the tribe but what we call, inaccurately enough, the fraction of a tribe [the large family] . . . All the members of the fraction say they are descended from the same ancestor, whose name they bear."[41] In the Slavonic countries of the sixth to ninth centuries the tribes "lived each with its own clans and on its own lands, each clan being its own master."[42]

Describing country life in mediaeval France, Marc Bloch concluded:

"To sum up, the village and its fields are the work of a very large group, perhaps . . . of a tribe or a clan; the *manses* (English *hides*, German *Hufe*) are the shares allotted to smaller sub-groups. What was

this secondary collectivity, of which the *manse* formed the shell? Very probably, it was the family, as distinct from the clan . . . , a family still patriarchal in type, large enough to embrace several collateral couples. In England the word *hide* has as its Latin synonym *terra unius familiae* [the land of one family]."[43]

Speaking of agricultural life in Lorraine, Ch. Edmond Perrin confirms "that the *manse* was, in the beginning, the share of land cultivated by a single family, is proved sufficiently by the practices of the Merovingian period; in the seventh century, indeed . . . it was by head of family and not by *manse* that the obligations of tenants were calculated on the lands of the Church and of the Crown."[44]

It is thus the large family, the clan, that occupies the village, and the family strictly so called that builds the farm. Now, primitive agriculture was confronted above all by the problem of periodical clearing of new land, a task carried out in common by the entire village, as is testified by the example of those peoples who have remained to this day at the given stage of development, and as is celebrated in old Chinese songs. It is logical, within the framework of a co-operative organisation of labour, that the cultivable land, cleared communally, should remain common property and be redistributed periodically. Only the garden around the dwelling, cleared by the family alone, or the fruit tree they have planted, evolves towards the stage of private property.[45] *Garden* means, moreover, "enclosed place", that is, "field closed to others", in contrast to the fields which are common property and are not divided up by fences.*

The allotment and periodical redistribution of the cultivable land by drawing lots are confirmed by numerous pieces of historical and linguistic evidence. The cultivable lands in Lorraine were first called *sors* (lots); the lands distributed by lot in Old Testament Palestine were called *nahala* (lots), a word which later came to mean property, etc. The same is true of ancient Greece.[47]

When, with the development of more advanced agricultural methods, the cultivated area at last became stabilised and the collective clearing of new land ceased to play an important part in the life of the village, private property in land began to appear. Even then, however, so long as the village community had not been dissolved, the ancient communal ownership survived in various forms. A third of the village—over and above the houses and gardens, on the one hand, and the cultivable fields, on the other—made up essentially of pastures and woods, remained common property. The right to graze, that is, the

* When the T'ang dynasty came to power in China (A.D. 618), thanks to a peasants' revolt, it re-established the system of periodical redistribution of the cultivable land, but left the gardens (about one-fifth of all the land of each farm) as hereditary property of the peasant families.[46]

use of all the fields, before sowing began, by the cattle of all the members of the community; the right to glean after the harvest; the right to build and use mills or wells in common; the constitution of the village as a unit collectively responsible for the payment of taxes; the keeping up of customs of mutual aid; the right to set up new farms on cleared portions of woodland; all these phenomena show that for centuries a strong collective solidarity continues in village life, a solidarity the roots of which lie deep in the communal ownership of olden times.

It is not possible to list all the sources that confirm the existence of this common ownership of the land among all civilised peoples, at a certain phase of their agricultural evolution; we will briefly mention some of the chief sources. The Japanese village community called the *mura* is described by Yoshitomi. Yosoburo Takekoshi, in his monumental work *Economic Aspects of the History of Civilisation in Japan* describes the common ownership of the land in ancient times, with division of the soil by lot. In Indonesia "the village community represents the original community", writes Dr. J. H. Boeke. Wittfogel has analysed the *tsing-tien* system of dividing the fields of the Chinese villages into nine squares, and discovered there the village community which has descended from the collective appropriation of the soil.[48] The work of Professor Dyckmans on the ancient empire of the Egyptian Pharaohs states explicitly that there the land was originally clan property with periodical redistribution of the holdings. Professor Jacques Pirenne says the same thing in his *History of Institutions and Private Law in Ancient Egypt*.[49] M. Jacques Weulersse, describing the agricultural system of the Arab people called the Alaouites, has found among them even today traces of collective ownership, which was formerly predominant throughout the Islamic world:

"Those villages are called *mouchaa* villages in which the whole of the land belongs collectively to the whole village community. No member of the latter possesses any land as his own, but only a right in the entire territory. This right guarantees him a definite share of the soil when the periodical redistribution of land takes place . . . usually every three years."[50]

In respect of all Central and East Africa the semi-official *African Survey* states that:

"It is true to say that throughout that part of Africa with which we are concerned, there is a prevailing conception of the land as the collective possession of the tribe or group."[51]

Speaking of the Polynesian economy of Tikopia, Raymond Firth notes "the traditional ownership of orchards and garden plots by kinship groups."[52]

Historical research confirms the existence of collective ownership of the land in Homeric Greece, in the Germanic *Mark*, in the ancient

Aztec village, in the ancient Indian village of the time of the Buddhist writings; in the Inca village where the ploughed fields are called *Sapslpacha*, that is, "the land (*pacha*) which belongs to everyone"; in the villages of the Byzantine Empire, notably in Egypt, Syria, Thrace, Asia Minor and the Balkans, before the Slav colonisation; in ancient Russia, with its village community the *obshchina*; among the South Slavs, the Poles, the Hungarians, etc. In a study undertaken for the F.A.O., Sir Gerald Clausen confirms, furthermore, that everywhere, in the beginning, agriculture was carried on within the framework of an agrarian system based on communal ownership, with periodical redistribution of land.[53]

The cultivation of irrigated land, cradle of civilisation

Agriculture was initially clumsy and irregular; man did not know how to preserve the soil's fertility. The discovery of irrigation and of the effect of letting land lie fallow completely revolutionised agricultural technique.

The consequences of this revolution in agriculture were incalculable. The breeding of domestic animals and the first beginnings of agriculture had enabled men to take control of the means of subsistence. The systematic application of the practice of letting land lie fallow, and above all, of irrigation, linked with the use of draft animals, enabled mankind to guarantee itself permanently a substantial surplus of foodstuffs, dependent only on man's own work. Each seed sown in Mesopotamia was repaid a hundredfold at harvest-time.[54]

The existence of this permanent surplus of foodstuffs made it possible for craft techniques to become independent, specialised and perfected. Society was able to support thousands of men who no longer participated directly in the production of foodstuffs. The town could separate itself from the country. Civilisation was born.

Already the ancient Greeks of Homer's time regarded civilisation as the product of agriculture.[55] The Chinese of the classical epoch attributed the "invention" of agriculture, of trade and of civilisation, all to the mythical emperor Chen-Nung.[56] It is interesting to note that in Aztec tradition the origin of the people's prosperity is to be found in a communication received by the high priest in a dream, a communication "which ordered the Mexicans to dam a great river which flowed round the foot of the hill, so that the water spread over the plain."[57] Over and above these limited examples, the historian Heichelheim does not shrink from stating, with justification, that *agriculture has been the foundation of all civilisations down to modern capitalism*.[58] And the American Encyclopaedia of the Social Sciences says:

"History and archaeology have so far brought to light no great

civilisation not largely dependent upon one of these three grains [wheat, maize and rice]."[59]

The transition to cultivation of the land by irrigation, and the appearance of town life, which resulted from it, occurred in several parts of the world where natural conditions made it possible. It is still difficult to determine to what extent this evolution took place among different peoples independently of each other; but this independence seems established as regards some of them. We find the development of agriculture by irrigation of the land, of a large permanent surplus of foodstuffs, of specialisation of crafts and of the rise of towns, successively in the valley of the Nile and in the valley of the Euphrates and Tigris in the fifth millennium B.C.; in the valley of the Hwang-ho in China, in Iran and on the island of Cyprus in the fourth millennium; in the valley of the Indus, in Central Asia and on the island of Crete in the third millennium; in mainland Greece, in Anatolia, in the Danube valley and in Sicily in the second millennium; in Italy and in Southern Arabia (the kingdom of Minea* and the Sabaean civilisation) in the first millennium B.C.; and in West Africa (civilisations of Ghana, Mali and Songhai in the valleys of the Niger and the Senegal) and also in America (in Mexico, Guatemala and Peru) in the first millennium A.D.

The metallurgical revolution

The agricultural revolution coincided broadly with the end of the age of polished stone. Men, released from the degrading servitude of hunger, were able to develop their innate qualities of curiosity and technical experimentation. They had long since learnt that it was possible to cook certain kinds of clay in the fire to make pots. By subjecting different kinds of stone to the fire they discovered metals, and then their wonderful capacity for being made into tools. The successive discovery of copper (sixth millennium B.C., in the valley of the Euphrates and Tigris and also in that of the Nile), of tin, then of the appropriate mixture of copper and tin called bronze (third millennium B.C., in Egypt, Mesopotamia, Iran and India), and at last of iron (*c.* 1300 B.C., among the Hittites, after a sporadic use of it among the coastal peoples of the Black Sea) constitute the most important stages in this technical revolution.

The effects of the metallurgical revolution were important first of all in the field of agriculture itself, which continued to be the basic economic activity of society. With the introduction of metal implements in agriculture, especially the plough with a metal share, the

* Etymologically, Minea means "spring water".[60] In the same period, Germany and Gaul were opened to civilisation thanks to the use of the fallow system.

employment of animal power for draft purposes became necessary, and the productivity of agricultural labour made a fresh leap forward. The use of the iron plough made possible extensive agriculture and the appearance of towns on the heavy soils of Europe in the eighth to seventh centuries B.C.[61] The introduction of metal tools in Japan in the eighth century A.D. made possible a considerable extension of the cultivated area and consequently a notable increase in the population.[62]

Thus was created the material condition for the rise of craft techniques and for the separation of town and country. The growth of population, made possible by the general increase in well-being,* provided the labour force. The increase in the surplus of foodstuffs supplied the means of subsistence for this urban labour-force. The metals themselves constituted the main raw material for the work of these craftsmen. At first essentially a technique of luxury and ornamentation, the metal-working craft later became specialised in the

* As for every species of life, this increase of the population is indeed the most objective index of progress. The geographer Ratzel[63] gives the following table of the density of population corresponding to the different ways of life at the beginning of this century. We have slightly simplified it:

	Inhabitants per square mile
Tribes of hunters, and of fishermen in the peripheral parts of the inhabited world (Eskimos)	·1–·3
Tribes of fishermen and hunters inhabiting steppe-land (Bushmen, Australian aborigines, Patagonians)	·1–1·5
Tribes of hunters with rudimentary agriculture (Dyaks, Papuans, Indian hill tribes, the poorest Negro tribes)	1–20
Tribes of fishermen settled on the coasts or river-banks (North-West American Indians, peoples of small Polynesian islands, etc.)	Up to 100
Nomadic shepherds	40–100
Agriculturists with beginnings of crafts and trade (Central Africa, Malay Archipelago)	100–300
Nomads with agriculture (Kordofan, Persia, Sennaar)	200–300
Peoples carrying on extensive agriculture (Moslem countries of Western Asia and the Sudan, Eastern European countries)	200–500
Tribes of fishermen carrying on agriculture (Pacific islands)	Up to 500
Regions carrying on intensive agriculture (peoples of Central Europe)	2,000
Regions of Southern Europe where intensive agriculture is carried on	4,000
Regions of India where irrigation agriculture is carried on	Over 10,000
Regions of Western Europe where large scale industry is carried on	Over 15,000

making of tools and weapons of all kinds. The crafts won final independence with the labour of the smith.*

Production and accumulation

Agriculture which can preserve and increase the fertility of the soil creates a permanent surplus of foodstuffs, a substantial *social surplus*. This surplus is not only the basis for the social division of labour, for the separation of the crafts from agriculture, of town from country. It is also the basis of the division of society into classes.

So long as society is too poor to be able to accumulate a permanent surplus, social inequality cannot develop on any great scale. To this day, in the countries of the Levant, whereas on the fertile land the property-right of lords has been established, taking from the peasant half and even more of his crop, on the mountain land "the crops are so poor that the land would not be able to bear the double burden of a share-cropper and a landlord."[65]

"Under primitive conditions it [slavery] does not exist. It has no economic basis at a time when a pair of hands can produce only as much and no more than one mouth consumes. It comes into being when the cumulative results of labour can be stored, or integrated into large works of construction."[66]

After examining the social institutions of 425 primitive tribes, Hobhouse, Wheeler and Ginsberg found that slavery was completely absent among peoples ignorant of agriculture and cattle-raising. They found the beginnings of slavery among one-third of the peoples who had reached the pastoral stage or the initial stage of agriculture, and a generalisation of slavery at the stage of fully developed agriculture. Thirty years later, C. Darryl Forde arrived at the same conclusions.[67]

As soon as a considerable surplus has been formed, the possibility appears for a part of society to give up productive labour, obtaining leisure at the expense of the remainder of society.† The use of

* In mediaeval Europe the smith appears as the first craftsman who works professionally for the market. The Latin word *faber* = "smith", and the German word *Schmied* = "smith" meant originally just "craftsman".[64] In Western and Central Europe, however, the Bronze Age did not see the appearance of an urban civilisation; only the iron plough created a plentiful surplus there. In Central America, on the other hand, the climatic conditions and the low density of population made possible a rise of civilisation already before metal tools came into use. These exceptions show, however, that the production and concentration of a large social surplus constitute indeed the condition for the appearance of civilisation. The differentiation of the natural environment inevitably entails differences in the methods of producing this surplus and differences as to the epoch in which different peoples attain to this.

† This is obviously only a *possibility*; it is equally possible that the leisure thus won may reduce the working time of all of the producers and be put to use for extra-economic activities by everyone. This seems to have been the

prisoners of war or captives of any kind as slaves (in Polynesia, slave means *Tangata-Taua* = "man obtained by war"[69]) constitutes one of the two most common forms in which society is first divided into classes. The other form of this same primitive division is the payment of an imposed tribute to part of society.

When advanced agriculture is carried on in a large number of small villages, each of them produces a surplus which, taken separately, is quite insufficient for the formation of a body of professional craftsmen, and still less sufficient for the foundation of towns.* The concentration of this surplus becomes the preliminary condition for its effective utilisation:

"The surplus produced by an individual family above the requirements of domestic consumption is liable to have been exceedingly small under a rural economy so backward that a large proportion of each season's calves had simply to be eaten. For a community to acquire any substantial quantity of foreign material a concentration of the surplus would be requisite. Historical testimony from the Bronze Age civilisations of the Ancient East and ethnographic evidence from Polynesia and North America show that one way of effecting this concentration is the institution of chieftainship, another the cult of a deity. Offerings made by each family of followers or votaries from its tiny surplus, the real chief or the representative of the imaginary god can accumulate quite a substantial surplus."[71]

Something which is at first voluntary and intermittent later becomes obligatory and regular. By the application of force, that is to say, by the organisation of the state, a social order is established which is founded on the surrender by the peasants of their surplus of foodstuffs to the new masters.†

Speaking of the most primitive peoples, Malinowski explains:

"These people have no centralised authority nor any tribal policies. Consequently they have no military force, no militia, no police; and they do not fight as between one tribe and another. Personal injuries are avenged by stealthy attacks on individuals, or by hand to hand

case among the Siane of New Guinea, among whom the replacement of their old stone axes by steel ones cut down the share of their working time devoted to the production of means of subsistence from 80 per cent to 50 per cent, according to Salisbury.[68]

* According to the American Assyriologist A. L. Oppenheim, the first Mesopotamian towns were only big villages, and retained a structure exactly the same as that of the village community.[70]

† In the Nigerian kingdom of Nupe, the rent paid to the chiefs is still called a gift, *kynta*, in the villages, whereas it is already called a tithe, *dzanka*, in the environs of the capital, Bida.[72] It is significant that the Arabic word *makhzen*, which means "government", comes from the verb *khazana*, "to accumulate", "to store", and that it has given us the French and Spanish words *magasin* and *almacén*!

fighting . . . War does not exist among them." C. Darryl Forde describes similarly the primitive clan communism, without hereditary chiefs, among the Tungus in North-East Siberia.[73]* Heichelheim notes, in contrast, the appearance of a state organisation in the first towns:

"The majority of the town population . . . lived from rents and tributes [that is, by appropriating the surplus product of agricultural labour]. Some belonged to the ruling class, princes, priests and nobles. The upper class had in its employ a large range of officials, agents, servants, tradesmen . . ."[75]

Beyond concentrating and accumulating the social surplus, these new possessing classes fulfilled other socially-necessary and progressive functions. They made possible the development of art, a product of the luxury crafts working for the new lords. They made possible the differentiation of the surplus product as a result of its accumulation, and the differentiation of the surplus product meant also the differentiation of production itself. They made possible, and to some extent themselves ensured in person, thanks to their leisure, the accumulation of techniques, knowledge and rules which guaranteed the maintenance and development of the productive forces of agriculture: astronomical and meteorological knowledge regulating the control of the waters, the approximate most favourable moment for starting the harvest, and in certain circumstances the forbidding of it: geometrical knowledge making possible the division of the fields; carrying out of works of initial cultivation made necessary by the growth of population, on a scale exceeding that of the power of a village or a group of villages; construction of canals, dykes and other hydrographical works essential for irrigation, etc.†

The technique of accumulation has been used to justify the appropriation of extensive material privileges. Even if it be historically indispensable, there is no reason to believe that it could not have been applied eventually by the collectivity itself. As for the privileges, they were in any case felt as exactions by the people who were the victims of them, and they inspired protests such as those of the peasant of the ancient Egyptian empire who speaks in the *Satire of the Crafts*.[77]

* Among the Nambikwara Indians the chief (*nilikande*: he who unites) enjoys an authority based on consent, and possesses no power of coercion. When Lévi-Strauss asked an Indian what were the privileges of the chief he received the same answer ("He's the first man to march off to war") as Montaigne had received in 1560—four centuries earlier!—to a similar question which he put to an American Indian.[74]

† 2,400 years ago, Kautilya, prime minister to the Indian King Maurya Chandragupta, explained in his work *Arthashastra* the origin of all civilisation as springing from the work of the peasantry: "For the fact that the villages supply their own needs and that men find their only pleasure [!] in the fields makes it possible to increase the King's treasury, merchandise [trade!], corn and moveable property."[76]

The Marxist category of "historical necessity" is moreover much more complex than popularisers commonly suppose. It includes, dialectically, both the accumulation of the social surplus which was carried out by the ancient ruling classes, and also the struggle of the peasants and slaves against these classes, a struggle without which the fight for emancipation waged by the modern proletariat would have been infinitely more difficult.

Is there an "economic surplus"?

The idea of a social surplus product, which is rooted in that of a permanent surplus of means of subsistence, is essential for Marxist economic analysis. Now, this idea has until recently been accepted not only by the majority of economists but, what is more significant, by all anthropologists, archaeologists, ethnologists and specialists in primitive economy. The numerous references to the work of these specialists which are scattered through the first chapters of this work testify that the empirical data of contemporary science confirm the validity of the basic hypotheses of Marxist economic analysis.

The only serious scientific attack directed against the ideas of economic surplus and social surplus product in pre-capitalist economy has been launched by Professor Harry W. Pearson, in a chapter of the collective work published under the editorship of Karl Polanyi, Conrad M. Arensberg and Pearson himself: *Trade and Market in the Early Empires*. It deserves refutation in detail.

Professor Pearson's criticisms can be summarised in five points:

1. The idea of "economic surplus" is a muddled one, since it in fact covers two different entities: the absolute surplus, in the physiological sense of the word, without which society cannot exist, and the relative surplus, which society has decided to form.

2. Now, an "economic surplus" in the absolute, biological, sense of the expression, does not exist. It is impossible to determine the minimum level of subsistence below which an individual would perish; it is impossible to determine this for society as a whole.[78] In any case, this level is so low that there is no proof that any human society has ever lived as a whole at this level.

3. As for the relative surplus, this is not the result of an economic evolution, in particular of the increase in the average productivity of labour. There are always and everywhere potential surpluses. The decisions to create or increase resources not assigned for consumption by the producers are social decisions which may be taken for quite non-economic reasons (religious, political, prestige).

4. There is "not a shred of evidence" to show that the appearance of "private property, barter, trade, division of labour, markets, money, commercial classes and exploitation" is due to the appearance of an economic surplus at crucial moments in the development of human

society. Such statements can be justified only by the assumption that "the logical course of economic development . . . is toward the market system of nineteenth-century western Europe."[79]

5. Furthermore, this whole conception is founded on the crudest materialism, which "bases social and economic development upon 'the narrow capacity of the human stomach'."[80] At every level of material existence, economic resources have been employed for non-economic ends.

Professor Pearson's argument proceeds from the distinction between "absolute surplus" and "relative surplus", a distinction which he has himself, of course, introduced into the discussion. To our knowledge, neither the physiocrats nor the British classical economists, nor, above all, Marx and Engels, ever regarded the "subsistence level" as an absolute biological notion. But one cannot thereby conclude that this idea has no definite historical significance in each specific instance, that one may arbitrarily reduce the level regarded as the minimum by a particular people at a particular time. For this reason it is wrong to state that every society possesses a potential source of surplus, regardless of an increase in the average productivity of labour.

True, no society can continue to exist if, after providing the most modest of livelihoods to its members, its production is inadequate to maintain the supply of tools. In this "absolute" sense of the word, no society reduced to the mere "biological" level of subsistence could survive. But so long as man *is not in control of* his means of subsistence—or in other words, so long as we are dealing with hordes, or primitive tribes who live by gathering fruit, hunting and fishing—this "surplus" is both precarious and extremely limited. The reason for this is quite simple: any exceptional increase in current production would not produce a "permanent surplus" but, on the contrary, a famine, upsetting the ecological balance of the inhabited area.

When Professor Pearson writes that no human society has ever lived at such a level of poverty he commits in reality a mistake similar to that for which he rightly blames the neo-classical economists. Just as the latter conceive all economic activity as a function of a market economy, Professor Pearson sees the entire economic past of humanity in the light of the economy of primitive peoples on the threshold of civilisation or already civilised, that is, of peoples who have already accomplished their "neolithic revolution" and are carrying on agriculture and cattle-raising. But when one considers that the period since that revolution occupies only a small fraction of the time that man has existed on the earth, when one recalls that hundreds, if not thousands, of primitive tribes have disappeared before reaching the stage of the neolithic revolution, in particular because they have not

been able to solve the problem of subsistence in a modified natural environment, one realises how untenable this statement is.

Proof, both logical and empirical, shows the contrary, that the majority of human societies previous to the neolithic revolution* had to carry on a permanent struggle for subsistence; that they were obsessed by this struggle, which seemed never to reach a victorious conclusion, and that all the social institutions quoted by Professor Pearson in support of the opposite view (especially the important place held by magic and religion in these societies) had definitely economic *functions*, that is, were supposed to contribute precisely to the solution of the agonising problem of subsistence. "The universal occurrence of magical and religious practices in association with productive processes reveals . . . that anxiety with respect to food supply is universal."[81]

That is where the key importance of the neolithic revolution lies. For the first time in human prehistory, control over mankind's means of subsistence passes from nature to man. For the first time, henceforth, these means can be multiplied, if not without limit, then at least in a proportion quite unknown before. For this reason, an important fraction of society can be released from the need to contribute directly to the production of food. There are no archaeological or anthropological data to bring into question today this obvious proof of the connexion between the appearance of a *permanent and substantial surplus of food*, on the one hand, and, on the other, the separation of the crafts from agriculture and of town from country, and the division of society into classes.

True, the growth in the average productivity of labour creates only the *necessary material conditions* for social evolution and transformation. There is no economic automatism, independent of social forces.† Men make their own history; an existing society defends itself against forces of transformation. Primitive society defends its egalitarian structure. There must then be a social revolution to break up egalitarian primitive society and give birth to a society divided into classes. But this social revolution is not *possible* unless a level of productivity has been reached which enables part of society to release itself from material work. So long as this material condition, this potential surplus, does not exist, the social revolution in question is impossible.

Professor Pearson will retort that, after all, the decisive driving force has been social, the replacement of one "model" of social organ-

* Except tribes living in an exceptionally favourable natural environment, usually described as "developed hunters".

† See Chapter 2, paragraph: "Co-operatively organised society and society based on economy of labour-time."

isation by another.* We readily agree to this primacy of the social. But would a confederation of tribes of primitive hunters have been able to build the Roman Empire, or even the Babylon of Hammurabi? Would the Mesopotamian peasants have been able to create modern industry? To answer these questions is to appreciate the strategic role of the increase in the economic surplus and the social surplus product in human history, through the growth in the productivity of labour.

* George Dalton[82] has endeavoured to enlarge upon the ideas of Professor Pearson in this connection. He is obviously right in opposing the anachronistic use, in relation to a primitive society, of motives like the *unlimited* search for material means. He is also right in opposing the use, in this different social setting, of categories derived from a commodity or money economy. But he is wrong when he concludes that the shortage of material goods is a purely "ideological" notion, or that there is no rational economic explanation of the socio-economic conduct of primitive peoples. To allege that "transactions of material goods in primitive society are expressions of social obligations which have neither mechanisms nor meaning [!] of their own apart from the social ties and social situations they express"[83] is to forget that primitive people are obliged, after all, to keep themselves alive, no less than modern ones; that their survival demands a certain amount of production of material goods; that social organisation is not independent of the need to produce these material goods; that the economic motive, that is, the striving to ensure that a certain *limited* amount of production takes place is thus definitely present in this primitive society; and that if it is often difficult to analyse this socio-economic structure, nobody ought to declare it an impossible task from the outset, because this would make impossible the scientific study of the evolution of societies in general.

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EXCHANGE, COMMODITY, VALUE

Simple exchange

THE conditions for occasional exchange were created by encounters between hordes gathering different fruits or hunting different animals. "Barter and trade develop in areas of contrasted produce, where bush and sea-coast, forest and plain, mountain and lowland, offer each other novelties and encourage the exchange of goods."[1]

Speaking of the Bemba people of Rhodesia, who trade very little, Audrey I. Richards notes that "the environmental conditions of the Bemba account to some extent for their poor development of trade, since conditions are, generally speaking, so uniform in this area that there is little reason for one district to exchange goods with another".[2]

The origin of exchange is thus to be found *outside* the primitive social unit, whether this be horde, clan or tribe. Within it there prevail originally mutual aid and labour co-operation, which exclude exchange. The service each person owes to the community is laid down by custom or religious rite; it varies with age and sex and with the system of consanguinity. But it does not depend on any expectation of a precise reciprocal payment, whereas *a measured reciprocal payment is what constitutes the essential characteristic of exchange.*

The measurement involved here is not necessarily an *exact* one. Indeed, it cannot be exact at the stage of simple exchange, which is casual and occasional. Hordes and tribes who know little about the nature, origins, conditions of production, or precise use of a product which they receive "in exchange" for another, inevitably let themselves be ruled by arbitrariness, caprice or mere chance in determining the conditions of such exchange. Exchange, the most precisely "measured" operation in modern economic life, was born in material conditions that excluded any possibility of precise measurement.

Simple exchange is casual and occasional exchange; it cannot form part of the normal mechanism of primitive life. It may result either from the chance appearance of surplus or from a sudden crisis in the primitive economy (famine).*

In either case, a primitive group which knows other groups are liv-

* Speaking of the Bachiga tribe in East Africa, May Mandelbaum Edel notes that "as a rule trade occurs only when it is necessary, as the result of a lean harvest, to eke out the food supply."[3]

ing nearby will try to establish exchange-relations, either by violent methods or by peaceful ones. This encounter between two occasional surpluses, varying in natural qualities, utility and *use-value*, creates the most usual conditions for a simple exchange transaction.

Silent barter and ceremonial gifts

When a primitive group regularly has a surplus of certain products, after meeting its own consumer needs, simple exchange can become developed exchange. This is no longer a casual exchange operation happening at exceptional moments, but a more or less regularised series of exchange operations.

The establishment of strict rules of exchange is only the culmination of a long transition which starts from a situation in which sporadic exchange takes place without any precise measurement. To the two ways of acquiring foreign products—simple exchange and war for plunder—there correspond two transitional forms of exchange among primitive groups: ceremonial gifts and silent barter.

Contacts between primitive groups not related by blood are hardly ever contacts between groups of equal strength. They imply relations near the brink of hostility, and this brink is quickly crossed.

Experience teaches the weaker groups that it is wisest to flee before the approach of formidable strangers. To the latter it teaches that if they decimate weaker groups whose products they want, this entails the risk of losing all chance of obtaining these products.* Thus conventionally regulated exchange-relations, known as silent barter, are established at the borderline of open hostility. The weaker group leaves its products for exchange in an uninhabited spot and goes away until the partner has left its own products in the same place.

Economic history is full of examples of this silent barter. The case of the relations between Moors and Negroes to the west of Gibraltar, mentioned by Herodotus, and that of the relations between Persian, Tartar and Greek merchants in South Russia with the inhabitants of the frozen steppes of North Russia, mentioned by the traveller Ibn Batuta, figure in the classical literature on the subject. Today, silent barter is to be found in several parts of the world: among the Chukchi tribes of Siberia, in their relations with the inhabitants of Alaska; among the *negritos* who live in the valleys in the north of the island of Luzon, in the Philippines, in their relations with the Christian inhabitants of the same area; among the Awatwa tribe, in Northern

* "The Mundugumor [headhunters of New Guinea] wander far afield not only in search of enemies to ambush, but in search of trade-acquaintances . . . From the emaciated, half-starved, rickety peoples who inhabit the eastern swamps, they buy cooking-pots, carrying baskets, mosquito-bags . . . They said they were careful not to kill all of them, for then there would be no makers of pots left alive."[4]

Rhodesia, in the relations between the inhabitants of the interior and those of the marshlands; in New Guinea, in the New Hebrides, in India, in Indonesia, etc.[5]

Silent barter, and still more the exchange operations which are derived from relations of open hostility, originate in contact between different primitive groups unconnected by ties of blood. Within the group, as we have seen, exchange relations are absent, in primitive conditions. Food and other primary necessities are not exchanged but shared.[6] What exists is a mere giving of gifts, presents (precious objects, talismans, ornaments) which are conventionally returned, just as today within a modern family, without any exact calculation of equivalent values.

However, when groups with a common ancestry grow large and spread themselves over a territory which is too extensive to be administered by a single leadership, they split into fragments. The exchange of presents, consisting of different products specially found in the respective territories on which these sub-groups live, is institutionalised, repeated periodically in a solemn manner, and becomes regular. The ceremony expresses the relations of real material interdependence which exist between these sub-groups, one being unable to live without the help of another, or else merely the existence of ties of blood.[7]

This institution of ceremonial exchange of gifts survives among primitive groups which have already reached the stage of individual agriculture but remain settled together in village communities. The difference between individual harvests within one and the same community, or between the harvests of a number of villages related by ties of blood, will be offset from time to time by exchange of gifts; numerous relations involving solemn exchange of gifts, the economic function of which appears today vague or even invisible, had a functional origin like this.

In his *Structures élementaires de la parenté*, Claude Lévi-Strauss has convincingly shown how these exchanges of presents, like exchanges of women, are integrated in economic life at this stage of social evolution, and how these two parallel circuits—which the primitive people regard as the same, the women being themselves considered as presents—are indispensable for *maintaining the social cohesion of the group*. The division of labour being still essentially the division of labour between the sexes, any disorganised choice of wives would lead to the weakening of certain groups, and even to their disappearance.

This is why the rules of reciprocity imply that a man "may not receive a wife from any other group than that from which he has the right to obtain one, because in the previous generation a sister or a daughter was lost; while a brother owes the outside world a sister

(or a father owes a daughter), because in the previous generation a wife was acquired".[8]

"Exogamy," concludes Lévi-Strauss, "provides the only means of maintaining the group as a group, avoiding the endless break-up and separation that consanguine marriages would mean".[9]*

Among the Ozuitem Ibo of Southern Nigeria, the exchange of presents of food is explained by members of the tribe themselves as follows:

"The people of Ozuitem claim that in the past, before cassava was first introduced at the beginning of this century, there was often a severe food shortage in the three months (June-August) before the annual yam harvest. A long-established system of food transfers during this period is still practised whereby food gifts are made by those having available supplies on the understanding that money gifts will be made in return. Men are also under obligation to make food gifts to their wives and female kinsfolk which ultimately benefit the households of these women."[11]

The practice of ceremonial exchange may proceed beyond the limits of a single tribe and extend to several tribes or peoples inhabiting a particular region. Just as ceremonial exchange within a narrow group merely gives expression to the close bonds of solidarity and co-operation in labour, its extension to several tribes and peoples expresses an effort to stabilise peaceful relations of co-operation among them.[12]

"The tribute-missions began as the gestures of the princes of the countries of the Nanyang [south-east Asia] sending envoys to the Chinese capital with gratulatory or ceremonial messages to the Chinese court. They were always received as humble emissaries conveying the submission of their masters to the Sun of Heaven. They brought presents, of course, usually of native produce, and the emperor, out of the benevolence of his heart, bestowed presents upon them in return. It happened that these return presents were often more valuable than those brought from Java, Borneo or Malacca, as the case might be; but even if they were only of equal value it was clear that here ready established was an embryonic foreign trade."[13]

When individual economic activity—above all, agriculture—comes

* Lévi-Strauss argues against Frazer, who explains the exchange of women by the fact that primitive people were unable to pay any other "price" [*sic*] for them. He is right in blaming Frazer for supposing the existence in the past of "calculations" which are found only in much more "advanced" societies. But he is wrong when he concludes: "In exchange of women there is nothing like a reasoned solution to an economic problem . . . It is an act of primitive and indivisible consciousness . . ." Actually, Lévi-Strauss himself has shown what a vital economic role was played by women in primitive economy. The desire to regulate the "circulation of women" so as to ensure the maximum equality of opportunity to marry for all the able-bodied men thus fully corresponds to an *economic* need for social equilibrium.[10]

to take a more and more important place in the life of the village community, when relations of ceremonial exchange of presents and of silent barter become frequent and are regularised, increasingly numerous elements of *measurement*, of *calculation* of the presents exchanged are introduced into the community, so as to maintain its economic equilibrium. In the *desa*, the Indonesian village community, two forms of economic activity thus coexist: the *samba sinambat*, unpaid activity directed towards the satisfaction of vital needs, and the *toeloeng menseloeng*, activity directed towards the realisation of individual needs for which one has the right to expect a more or less equivalent counter-payment.[14] Schechter,[15] having examined most of the examples of ceremonial exchanging of presents, found that in the majority of cases the principle of equivalence, and so of precise measurement of the counter-payment, already plays a preponderant part. True, this is still a long way from a market economy, based on commodity production, but equivalence is generally accepted and even institutionalised, as appears in Hammurabi's code.[16]

Developed exchange

Silent barter and ceremonial gifts are transitional forms between simple exchange and generalised exchange, which can be included under the common heading of *developed exchange*.

Developed exchange results from an encounter between surpluses of different products which are no longer casual but habitual. Both silent barter and ceremonial gifts can take the form of developed exchange, and can also outgrow this form and appear as part of generalised exchange properly so called.

In primitive society in which the crafts have not yet won their independence, a *regional specialisation*, a regional division of labour, can appear in consequence of specific peculiarities of a given territory. The tribe occupying this territory may devote itself to a large extent to producing this speciality, and appear in the eyes of neighbouring tribes as a collective specialist. It will produce a considerable surplus of the goods in question, and exchange it against the special products of other tribes. Prehistory and ethnography show that *tools* and *ornaments* are the first products likely to spread in substantial quantity from a given centre of production, through operations of developed exchange.

Thus, before the colonial conquest of their country, the Gouro tribe of the Ivory Coast used to exchange with the people of the savannah mainly cola nuts, which they produced, for iron rods, called *sompe*, which they used both as raw material for making agricultural tools and weapons and as media of exchange. Cola and *sompe* were elements in a trade between the South and the North which was genuinely complementary, between two different geographical zones.[17] It should further be noted that, at the same time as they carried on this genuine

trade, the Gouro kept up relations of ceremonial exchange of gifts with tribes, such as the Baoulé, whom they regarded as their kindred.[18]

Already in the old stone age, real workshops for the production of stone implements were organised, notably at Saint-Acheul and on the island of Bömlo, in South-West Norway. In the new stone age, real flint quarries existed in Egypt, Sicily, Portugal, France (Grand Pressigny), at Grime's Grave and Cissbury in England, at Obourg and Spienne in Belgium, in Sweden and in Poland (Eastern Galicia and Kielce district). On the island of Marua remains have been found of workshops producing stone implements which supplied the needs of a large part of New Guinea.[19] Heichelheim mentions a number of sources which seem to confirm the circulation of ornamental objects within a very wide radius, from the earliest times.[20]

With the progress of the productivity of labour and the formation of small regular surpluses among many neighbouring tribes and communities, this system of regional specialisation can expand into a regular network of exchange and lead to a true regional division of labour. In the Amazon basin, for instance, various tribes each have their own specialities: the Menimels are particularly well-known for their pottery, the Karahone produce especially virulent poisons, the Boro specialise in the making of rugs, ropes and pipes; the Nitoto excel in the making of hammocks.[21] Exchange becomes more and more regularised between these tribes, on the basis of these specialities.

For each of the tribes concerned, however, the making of special products constitutes only a supplementary and secondary activity in their economic life. The latter remains based essentially on fruit-gathering, hunting and fishing (with sometimes the beginning of some agriculture), that is, on looking for food. No craft specialisation yet exists within the tribe, where developed exchange is completely absent, except perhaps in the form of ceremonial gifts. Those who today are making pots must tomorrow go hunting or cultivate the land, if the tribe is to escape falling victim to famine.

Trade

With the neolithic revolution, the development of agriculture and the formation of permanent surpluses create the possibility of permanent exchange with peoples who have not yet acquired such surpluses, and exchange enters a new phase. Exchanges are no longer restricted to a few rare products which are the specialities of certain regions. They henceforth embrace all the products of a whole region; *local markets* make their appearance. Each tribe or each village continues to provide for its own needs to a large extent, but none is any longer entirely independent of a supply of foreign products.

"Many communities (in Southern Nigeria) dispose of a surplus of foodstuffs and other goods in daily use, such as pottery, matting and

wooden utensils, which find their way through the multitude of local market places to purchasers in other communities . . . Thus, the Agoi forest villages on the slopes of the Oban hills . . . trade smoked bush meat to the markets of the villages close to the Cross river in which they purchase yams, some of which may have been grown not by the people of these villages but by the Ibo living several miles on the far side of the river. Similarly, pot-making villages, which are relatively few and far between, are nearly all surplus producers, their wares being distributed over areas of a hundred square miles or more. Thus, though in general, the household, and still more the village community as a whole, is largely self-sufficient in food supplies and most other household needs, few, if any, are completely so."[22]

The system of *generalised exchange* coincides with the beginnings of professional crafts within the village or tribe. But this specialisation is a specialisation within a *village community*. The craftsmen who increasingly give up agricultural work receive their food in reward for their services. Exchange within the village or the tribe thus remains *rudimentary*. This is the situation, for example, among the inhabitants of the Marquesa Islands in the Pacific, or among the Kafflitcho and Gougo tribes in East Africa. Some craftsmen have already become fully independent, others not yet. The craftsmen in the first category receive a certain quantity of food, clothing and ornaments every year from the village community, in reward for all their work. The craftsmen in the second category are helped by other members of the tribe in the work they have to do on the land which is to supply them with means of existence.[23] In neither case have we here exchange in the strict sense.

Generalised exchange between different villages, tribes and communities is carried on in a more or less collective way, by the producers themselves, by a section of the community (for example, the women*), or by representatives of the community. It is not yet in itself a specialised economic activity.

"In mediaeval Europe, as in agricultural areas of our own day, the average producer was able to dispose of the petty surpluses of his household (eggs, cheese, hens, vegetables, milk, cattle, and even grain) without the assistance of a professional trader. Similarly, wherever an industry happened to be organised in small handicraft units and goods

* In so far as it was women who first undertook the cultivation of the soil, it is understandable that they should have been the first to undertake the exchange of food surpluses in a regular way. According to Chinese tradition, women were the first to engage in trade. Quite recently, all trade was in the hands of the women among the following peoples: the Togo, Somali, Galla and Masai in Africa, the Tatars and Tibetans in Asia.[24] Forde, Scott and Nadel note the same phenomenon in Nigeria. In pre-Columbian Nicaragua, only the women were allowed to appear in the market-place.[25] Similarly, only women sold in the local market in the kingdom of Dahomey.

were made in small quantities, or to order, producers and consumers could deal with each other without the intervention of a trader. Not only the village smith and potter, but the urban butcher, baker and candlestick-maker themselves disposed of their produce."[26]

This situation changes with the metallurgical revolution. The first metals that man found how to use, copper and tin, are not found in all countries, nor, in particular, in those which, thanks to irrigation agriculture, saw the first rise of civilisation. The mines are located in certain well defined areas, especially in mountainous parts, where the metals in question may well have been used over a long period for purposes of decoration, without giving rise to a metallurgical revolution in the economic sense of the word.

In order to acquire these minerals, the agricultural peoples who possessed adequate food surpluses, techniques and leisure had to go and seek them where they were to be found, first, no doubt, by way of plunder, then later through normalised exchange.[27] Exchange over long distances, international exchange between regions separated by hundreds of miles, could no longer be a supplementary activity, alongside the work of the crafts and agriculture. A new division of labour took place, the carrying-out of exchange was separated from other economic activities: trade was born.

Among the primitive peoples, the metallurgical revolution caused the appearance of professional crafts to coincide with the generalisation of exchange. The first craftsmen wholly detached from agricultural work are *itinerant smiths* (they are still found among the Bantu of equatorial Africa and the Peuls in West Africa). Among these peoples, the metallurgical revolution, by making trade independent, separates it completely from the crafts, just as it separates the latter from agriculture.

It is interesting to observe that the two forms of exchange, generalised exchange which has not yet become a specialised activity, and specialised trade properly so called, are usually found together in agricultural regions. Thus, among the Indians of the Chorti tribe, in Guatemala, the peasants and craftsmen themselves go to the local market once a week, and to the cantonal market once a month, or once every two months, to sell their small surpluses. But the trader who imports products from outside the region itself is a professional trader. The same distinction is observed among the Nupe, in Nigeria.[28]

From the age of copper onward, trade developed, notably in the first pre-dynastic civilisation in Egypt; in the first, "pre-diluvian" civilisation in Mesopotamia; in the most ancient of the civilisations discovered on the site of Troy, in Asia Minor; in the Creto-Mycenaean civilisation in Greece; in the civilisation of the Aztecs in Mexico, before the Spanish conquest; in the ancient Chinese, Indian and Japanese civilisations, etc.

In a work of Chinese classical literature, the *Appendix to Confucius's Book of Changes*, it is reported that markets (that is, trade) were invented in the same period as the plough, i.e. at the same time as the important changes in agriculture which result from the metallurgical revolution.[29]

With the bronze age, the development of trade relations becomes the preliminary condition for the productive use of technical knowledge. By a careful study of the deposits of copper and tin available in that period, Gordon Childe showed that in proportion as the Mediterranean peoples went over to the making of bronze objects they necessarily had to enter into international trade relations with a number of countries. From India to Scandinavia there are in fact only four regions where these two metals can be found together, namely, in the Caucasus, in Bohemia, in Spain, and in Cornwall.[30] However, the bronze age did not begin in any of these four regions.

The peoples who presided over the rise of the bronze age were obliged, in order to obtain these precious metals, to organise tremendous trading expeditions—in so far as they were not periodical raids, such as those which subjected the mines of the Sinai peninsula to Egypt from the time of the second dynasty.[31]* The wheeled chariot and the sailing ship were invented in the bronze age, and accompanied the progress of civilisation throughout the ancient world. Regular caravans linked Egypt with Mesopotamia across the Sinai peninsula, Palestine and Syria, and linked Mesopotamia with India across Iran, the north of Afghanistan and the Indus valley. From the bronze age onward, in a Europe which was still barbarous, extensive trade relations were formed between the Baltic and the Mediterranean, the Danube valley, the Pannonian Plain and the British Isles.

When this international trade became stabilised and peaceful, it continued none the less to be a State matter, and was carried on at first through merchants who were State servants. A neutral entrepôt provided the meeting-place for the two nations.[32]

Production for use and production of commodities

Production in primitive societies is essentially production to meet needs. The producers work in order to satisfy the needs of their community, whether this be large (tribe or clan) or small (family). This is true of the peoples who are still at the stage of gathering their food and also of those who are already producing it in the strict sense

* China, where copper and tin are plentiful, was able to enter the bronze age very soon. Internal trade therefore developed *earlier and further* than external trade. The decisive role of the metallurgical revolution in the development of trade is thus confirmed by this exception, too. In America copper and tin are found on the high plateaux of Peru and were basic to the Inca civilisation.

of the word. The first empires built up on the basis of irrigation agriculture do not show any economic features fundamentally different from the latter. The kings or priests who centralise the surpluses use them to satisfy their own needs or those of the community as a whole. It is significant that the King of Babylon was called, in official inscriptions: "Peasant of Babylon", "Shepherd of Men", "Irrigator of the Fields". In Egypt, the Pharaoh and the governmental administration were called *Pr'o*, meaning the big household. In China, one of the legendary emperors who were supposed to have founded the nation was called Héou-tsi, millet-prince.[33] The whole of the economy appeared indeed like a great estate producing *use-values* to satisfy its needs.[34]

With the independent crafts a new kind of production appeared. Producers who were peasant-craftsmen living in a village community, brought to the market only the *surplus* of their production, that is, what was left over after the needs of their families and their community had been met. The specialist craftsmen detached from a community, the itinerant smith or potter, no longer produces use-values to meet his own needs. *The whole of his production is intended for exchange.* It is in exchange for the products of his labour that he will acquire the means of subsistence, clothing, etc., to meet the needs of his family and himself. The independent craftsman detached from the village community no longer produces anything but *exchange-values, commodities* destined for the market.

Someone who essentially produces use-values, intended to satisfy his own needs or those of his community, lives by the products of his own labour. Production and products, labour and products of labour, are identical for him, in practice as in his mind. In commodity production this unity is broken.

The producer of commodities no longer lives directly on the products of his own labour: on the contrary, he can live only if he *gets rid* of these products. *He lives*, as Glotz says of the Greek craftsmen of the Homeric age, *exclusively by his labour*. This is all the truer in that these first craftsmen went to the homes of their clients and received from them the raw material for their production.[35] It was the same in most societies when the first development of commodity production took place: notably in Egypt, in China, in Japan, in India and at the beginning of the European Middle Ages.[36]

Commodity production does not appear all at once or over the whole of society. After the crafts have become professional and some craftsmen have become commodity producers detached from the village community, the peasants and the remainder of the craftsmen may for centuries go on living as producers of use values. They will exchange only small surpluses of their products in order to acquire the few commodities which they need. These commodities consist

essentially of *salt* and *iron* (or other metals). It was so in China, in mediaeval Europe, in mediaeval Russia,* in mediaeval Japan, in the Indian village community, in Africa, in pre-Columbian America, etc.[37]

Generalised and specialised exchange, trade, is at first restricted to the metals and ornaments (luxury products) more or less reserved for the State (king, prince, temple). But commodity production attains a higher level from the moment that it supplies both craft and agricultural products to trade. The invention of the wheel, for chariots, makes it possible to use the principle of rotation in pottery-making technique. The potter's wheel is the first tool that makes possible "mass production" of commodities exclusively intended for trade.

Ethnography shows in most cases that, while women are the first to make pottery so long as this is merely a domestic or village technique, men are the first to use the potter's wheel and become specialists working for the market.[38] As regards agricultural products transformed into commodities, these first appear when human communities are formed that are completely separated from production of means of subsistence, communities of craftsmen, merchants and administrators, that is, *urban communities*. According to Polanyi, it was probably in Lydia, and then later at Athens, that the first local markets for foodstuffs were established. We have the impression, however, that in China such markets were also in existence in the fifth century B.C., if not earlier.[39]

Co-operatively organised society and society based on economy of labour-time

In primitive society producing little or no surplus, the co-operative organisation of labour is based on custom and religious rites which serve to regulate the essential economic activities. In poorly-favoured regions, where food supplies are hard to come by, labour co-operation may mean incessant economic activity, carried to the limits of human strength. In regions better favoured by nature, such as the Pacific islands, production of the necessary product may take up relatively little of the time available, the rest being devoted to leisure pursuits.

As a rule, no community will voluntarily give up a substantial part of its leisure to work and produce more if it is not forced to by economic and social necessity.† Economic necessity means the need to obtain a bigger surplus of products so as to acquire, through ex-

* The old Russian word for a merchant engaged in internal trade, *prasol*, indicates trade in salt, though later on the name came to be the general word for any retail trader.

† "Despite the frequency of famines no Mkamba (a Negro tribe) thinks of ever sowing more than is necessary to carry him on to the next rains."[40]

change, goods needed for the well-being of society and which the community itself does not produce (certain kinds of food, salt, raw materials for making tools, ornaments for ritual use, etc.). Social necessity means that which compels the community regularly to give up a surplus to a centralising authority, either in the interests of the community (to carry out irrigation works, etc.) or as the result of a conquest which has forcibly imposed such a tribute.

These two necessities may be combined. Speaking of the Mojo and Baure tribes, which live in eastern Bolivia, Alfred Métraux writes: "So great was the desire for metal, which eased the daily struggle for life, that the Indians, lacking other commodities acceptable to the whites, soon turned into slavers . . ."[41]

In other words: the growth of the surplus product beyond narrow limits (food reserves) is not the result of an independent development of the economy. It results from the intervention of *outside pressures*, either economic (exchange) or social (appropriation of the surplus by a central power or a ruling class).*

So long as primitive society, co-operatively organised, does not know any division of labour other than that between the sexes, the rhythm of labour is fixed by custom and religious rites. When a more consistent division of labour has been established, the contribution to the community made by each producer has to be measurable by a common yardstick. Otherwise, labour co-operation would tend to break up through the emergence of privileged and unprivileged groups. This common measure of organisation cannot be other than *economy of labour-time.*

The village can be regarded as a big family. Its total annual production has to correspond more or less to its needs in means of subsistence, clothing, housing and tools. To avoid any imbalance between these different forms of production, to ensure that the peasants do not devote an excessive share of their time to producing pots or leather articles, while leaving part of their land uncultivated, it is necessary that the community compile a record of the amount of labour-time available and allot this labour-time first and foremost among the essential sectors of production, indispensable for the well-being of the community, while leaving everyone free to employ the rest of his time as he pleases.

Ethnography and economic history show that the village community which has experienced the beginning of a division of labour

* This does not contradict the proposition we were defending earlier, according to which the development of a ruling class presupposes the existence of a social surplus. Though a primary development of the surplus does precede any formation of a ruling class, the latter thereafter in turn brings about a major expansion of this surplus, and a fresh development of the productive forces.

does indeed organise its social life on the basis of an economy of labour-time. Primitive peoples consider that only labour is something "scarce", says Ruth Bunzel.[42] According to Boeke, the economy of the Indonesian *desa* (vilage community) is based on calculation of hours of labour expended.[43]

In the economy of the Japanese village, "the principle of exchange is people and days. Thus, if household A has two people at work on household B's field for two days, household B is expected to provide its equivalent on A's fields—this may be three people one day and one person another day or any other combination to equal two people working two days . . . When four or five families work together in one *kattari* group [team for transplanting rice], the figuring is on the same basis. This requires a book to check days and workers."[44]

Among the Negro tribe called Heh, peasants who order a spear from the smith (who is himself a peasant as well as a smith), work on the smith's land while he is making the spear.[45] In ancient India, in the Maurya epoch, labour and products of labour governed the rules of organisation of economic life.[46]

When the first forms of social subordination were established, with appropriation of the surplus by a privileged section of society, the reckoning of exploitation was also based on an economy of labour-time. Among the Incas, "tribute was to consist solely of labour, time and skill as a workman, artisan or soldier. All men were equal in this respect, he being held to be rich who had children to aid him in making up his appointed tribute, and he who had none being considered to be poor. Every craftsman who laboured in the service of the Inca, or of his *curaca* (superior), must be provided with all the raw materials, and his employment in this way must not exceed two or three months in the year."[47]

It was the same in Europe in the early Middle Ages, when a large section of the peasantry lived under serfdom. The villagers were governed by a strict economy of labour-time: three days a week, on the average, being spent in work in the lord's land, and three days on the serf's own land.*

Similarly, the serfs' wives had to work a fixed number of days in the workshops of the manor, spinning, weaving, sewing, etc. Each craftsman had his own field, in exchange for which he had to render specific services to the manor and to the other tenants.

The social organisation based on the economy of labour-time has left numerous traces, even in the language. In central Europe in the Middle Ages the most common unit of area is the *Tagewerk*, the area

* We read, for example, in the old laws of Bavaria, that the "serfs of the Church" have to spend three days a week in work on the demesne (of their lord) and that "they do three days' work for themselves." *Opera vero 3 dies in ebdomada in dominico operet, 3 vero sibi faciat.*[48]

that a man can plough in one day. In mediaeval English the word "acre" had the same meaning. In the Kabyle mountains, holdings are evaluated in terms of *zouija*, days of ploughing carried out with a plough drawn by two oxen. In France, the "carrucata" signified the amount of land a man can normally plough in a single day. The "pose", the Swiss unit of area, is similar in meaning.[49]

The extent to which the economy of labour-time regulated the whole of economic life emerges clearly from the description given by Dollinger of the disappearance of the serf day-workers.

"These exemptions from service [as day-worker] did not, of course, leave the serf idle: they implied that he received from his lord a holding which he cultivated for himself on his free days . . . Undoubtely, this holding was as a rule proportionate to the time at his disposal. The serf who had only one free day a week probably obtained a very small piece of land, whereas the one who had two or three days free might perhaps receive an entire *manse*."[50]

Analysing the mediaeval peasants' obligations as a whole, Marc Bloch came to the same conclusion:

"The peasants, or at least some of them, had to render to the lord every year a fixed number of manufactured products: wooden articles; fabrics; clothing; in the case of certain *manses* where, from generation to generation, the income from a skilled trade was accumulated, even metal tools. Sometimes the supply of raw material was, like the labour, at the expense of the tenant: this was probably usual in the case of wooden articles. But where fabrics were concerned, the materials were often provided by the lord: the peasant or his wife *gave only their time* [my emphasis, E.M.], their efforts and their skill."[51]

In many instances, the description of the peasants' dues takes forms which are interchangeable, in labour-time or in quantity of products. Thus, the dues owed to the lordship of St. Gall by the serf women are sometimes—as in the ancient *Lex Alemannorum*—indicated by the number of days of labour to be performed, and sometimes by the number of products to be produced during these days.[52] The Aztecs imposed on the other peoples of Mexico a tribute calculated in working days, in amount of craft products, or in area of land to be cultivated.[53] In Japan there were in the eighth century A.D. two kinds of non-agricultural obligatory labour, called *cho* and *yo*. The statute of Taiho fixed the amount of these two obligations both in length of labour-time (ten days), in quantity of cloth (26 *shaku*, i.e. approximately 10 yards) and in quantity of corn (1 *To*, i.e. approximately two bushels).[54] Thus, among the producers in a society of this kind, the length of time needed to produce a given commodity was quite clear. Similarly in Western Europe, when from the twelfth century onward direct cultivation of the manor was more and more replaced, on the

Continent, by leasehold farming, it was *half the crop* that had to be given to the lord in place of the classic three days of work each week. In China the chronicles of the Tang dynasty calculate exactly how much work has to be devoted to growing millet (283 days a year) and wheat (177 days), the land tax being payable in kind.[55] In the mediaeval commune, notes Espinas, there is a strict equivalence between the working day and the (quantitative) amount of the work to be done.[56]

We find this same economic accounting based on the duration of labour in Spanish America, at the time when the forced labour of the Indians was transformed into rent in kind, in the system of *repartimiento-encomienda,*[57] and also in Indonesia at the time of the introduction of the *cultuurstelsel.* The population had no longer to pay "land rent" but to plant one-fifth of its land with products to be sold to the Government: indigo, sugar, coffee, tobacco, etc. "If one had no land, one had to work 66 days a year on the Government's plantations."[58] In Vietnam, during the dead season of the year, loans are made which are repayable in working days: 1·5 piastres, to be repaid by ten days' work at the time when there is much to be done, etc.

Exchange-value of commodities

Now, generalised exchange, trade, appears only at a stage of social development marked by this economy of labour-time. Those peoples who have escaped the need to observe this economy are satisfied with a small surplus product and exchange which is merely rudimentary or ritual.* It follows that this exchange is guided by the same objective standard which underlies all social organisation, namely, *that the exchange-value of commodities is measured by the labour time needed to produce them.*

We observe the transition from a social organisation *consciously governed* by the economy of labour time to one with exchanges regulated half-consciously, half-objectively, by the same principle, in the case of the trading relations established in the Nilgiri Hills, in the South-West of the Indian peninsula, between four tribes: the Toda, Karumba, Badaga and Kota.

* This is why numerous primitive peoples whose development has been stopped before the appearance of petty commodity production do not exchange their products in accordance with objective standards or on the basis of an economy of labour-time. This fact has led many ethnologists to false conclusions as regards economic analysis. Margaret Mead records, however, that the inhabitants of Manua (Samoa), who practise ceremonial exchange of finely woven mats, had originally fixed an exchange value for these mats which corresponded to the labour-time spent on producing them. Later, this value was greatly increased. This Samoan people, like the inhabitants of many other Pacific islands, consists of emigrants who have come from inhospitable countries to countries of plenty, where exchange no longer plays an economically important role.[59]

The Toda are shepherds; the Karumba still live in the jungle; the Badaga are agriculturists; and the Kota are primarily craftsmen who are already acquainted with metal-working and make knives. They supply these knives to the three other tribes, together with pots and musical instruments needed for religious ceremonies. In exchange they receive from the Toda buffaloes and other cattle; from the Karumba, honey, wild fruits, and (magical) protection; and from the Badaga, wheat. But the Kota are not mere craftsmen; they themselves possess land which they cultivate. Religious rites determine the traditional quantity of wheat—the outcome of long experience—which must be exchanged for the metal utensils provided by the Kota smiths. "Should a Badaga wish more of these utensils, he would have to work in the field of the Kota iron-worker of whom he requested them, while they were being forged."[60]

In the same way, among the people of Dahomey, "the practice among the iron-workers, for example, is for one smith to buy a quantity of scrap iron and keep it until such time as it is his turn to benefit from the labour of his fellows, for whom he has been working in the meantime. When this time arrives, all the members of the craft of forgers convert the iron he has acquired into hoes, axes, bush-knives, and other saleable goods. The owner of the iron then is free to sell these implements, and to keep the proceeds gained from selling them. This money he will use for living expenses and the purchase of scrap iron, meanwhile working for his associates, until it is once more his turn to have the use of the combined labour-power of his craft of forgers."[61]

Exchange which is simple, occasional, ritual and without economic importance may well disregard strict equivalence. It is not the same with generalised exchange. Lack of an objective criterion of equivalence would prevent any regulation of exchange-relations. It would lead to disorganisation and the dissolution of any society which included a substantial number of commodity producers. The producers would give up the kinds of work in which they received less for their products than in other kinds of work. Strict relations of equivalence between the products and commodities being exchanged are therefore indispensable.

But a relation of equivalence between two products, two commodities, demands a common gauge, a common commensurable quality. The *use-value* of a commodity depends on the totality of its physical qualities, which determine its utility. The existence of this use-value is an indispensable condition for the appearance of an exchange-value; nobody will accept in exchange for his own product a commodity which has no utility, no use-value, for anyone. But the use-value of two commodities, expressed in their physical qualities, is incommensurable; one cannot measure with a common gauge the

weight of corn, the *length* of cloth, the *volume* of pots, the *colour* of flowers. For reciprocal exchange between these products to be possible, a quality must be found which they all possess, which can be measured and expressed quantitatively, and which must be a *social quality*, acceptable to all members of society.

Now, the totality of the physical qualities of commodities which give them their use-value, is determined by the *specific labour* which has produced them; the labour of a weaver determines the dimensions, fineness and weight of the cloth; the labour of a potter determines the durability, shape and colour of the pot. But if these commodities are each the products of a specific kind of labour, they are also the products of *social human labour*, that is, of a part of the total labour time available to a particular society, and on the economy of which society is based, as we have just shown. This is the fact that makes commodities commensurable; it is this general human labour —called abstract labour because abstraction is made from its specific nature, just as when one adds together three apples, four pears and five bananas one has to abstract from their specific qualities so as to be left with merely twelve *fruits*—that is the basis of exchange value.* It is the measurement of this work—the duration of the labour-time needed to produce the commodity—that provides the measurement of exchange-value.

Petty commodity production

So long as independent craft work, trade, and division of society into classes have developed only slightly, commodity production occupies a relatively limited place in society. It is only when trade and town life have reached a certain stage of development, when they have created a *sufficiently extensive market*, that commodity production develops and becomes general in its turn, in the towns.[63] We then enter a period of history marked by the fact that commodity production has become general in the towns while production for use is slowly breaking up in the country. This commodity production carried on by

* Since the dawn of petty commodity production, about 3,000 B.C., all labour has been considered equivalent, regardless of its special character. On the tablets, inscribed in a Semitic language, found at Susa, the wages in the household of a prince are fixed uniformly at 60 *qua* of barley for the cook, the barber, the engraver of stones, the carpenter, the smith, the cobbler, the tailor, the cultivator, the shepherd and the donkey man.[62] At this early phase of the production of exchange-values, however, men were not able to arrive at the notion of "abstract labour"; the equivalence of different skilled trades was conceived as such. The idea of "abstract labour" could not arise until the appearance of the *mobility of labour-power* in the capitalist era. This implies not merely that one hour of the labour of a textile worker produces as much as one hour of the labour of a brickmaker, but also that these jobs have been *interchangeable* in large-scale industry. See also Chapter 5, section: "Human labour-power and machine production".

craftsmen who own their own means of production (tools) is called simple or petty commodity production. It became preponderant in periods of urban civilisation, notably in Antiquity, from the sixth century B.C., in Greece; about the eighth century A.D. in the Islamic world; and from the eleventh century A.D. in Western Europe, where it reached its most characteristic development in the Southern Netherlands and in Italy in the thirteenth to fifteenth centuries.

In petty commodity production, labour no longer results directly in satisfying the producer's needs; labour and product of labour are no longer identical for him. But the producer remains owner of the product of his labour; he gives it up only in order to acquire for himself the goods which will ensure his existence. The division of labour has already separated the producer from his product, but it does not yet oppress the former by means of the latter. Commodity production develops slowly within society, while production of use-values pure and simple is slowly shrinking.

The more production of commodities extends, the more necessary becomes exact reckoning in hours of labour. In primitive society where only a rudimentary division of labour exists, accounting is of vital importance for the community survival only as regards the essential kinds of work. Apart from them, as we have seen, it matters relatively little whether two hours or three are spent on producing a particular object. This is what explains the quite extensive freedom enjoyed by members of such societies, within the framework of strict rules which govern the activities that produce food. Herskovits has given a striking picture of this mixture of strict accounting and wide freedom in the cycle of production and consumption among the Talensi, a people living by fruit-gathering and agriculture in Ghana.[64]

Once, however, commodity production has become widespread within a primitive community, the reckoning of labour-time takes place more strictly. On the market where the products of the labour of different villages, even different regions, meet, exchange-values establish themselves henceforth in accordance with *social averages*. It is not the number of hours actually spent on making an object that determine its value, but the number of hours of labour necessary to make it in the average conditions of productivity of this society in this period. Commodities would indeed become incommensurable if their value were determined by the *actual* time spent, by chance, by each individual producer on producing them. "He [the mediaeval artisan] has to produce, in accordance with fixed conditions, cloth which is 'not personal but official, municipal'; his labour, one might say, is expressly objective not subjective."[65]

Since the value of commodities is established by the amount of labour *socially necessary* to produce them—that is, since this average

becomes fixed by the experience of repeated acts of exchange, by the simultaneous appearance of products from several different producers competing with each other—producers who are clumsy, slow, or who employ out-of-date methods, are penalised. They receive in exchange for the labour-time they have individually given to society only an equivalent produced in a shorter length of time. Greater discipline and stricter labour accounting thus accompany the development of commodity production.*

With the development of petty commodity production, human labour begins to be differentiated according to quality. *Composite, skilled* labour separates off from simple labour. As the crafts, becoming more and more specialised, necessitate a more or less lengthy period of apprenticeship, the cost of which can on longer be borne, as in primitive societies, by the whole community, but has to be met by the apprentice's family or by himself personally, no one would devote himself to the prolonged apprenticeship to a craft if, in exchange for an hour of skilled labour, he were to receive the same equivalent as for an hour of unskilled labour. Skilled labour is regarded as composite labour, into which there enters not only the labour expended by the craftsman at the moment when he is producing something as a qualified man, but also part of his expenditure of unpaid labour in the days when he was an apprentice (social depreciation of the overhead costs of apprenticeship).

Law of value in petty commodity production

The *law of value* which regulates the exchange of commodities in accordance with the amount of abstract, simple, socially-necessary human labour they contain, at last begins to fulfil a supplementary function. Primitive society and the village community, with their rudimentary division of labour, were organised on the basis of *conscious* labour co-operation, in which custom, religious rites, the counsels of elders or elected administrators, determined the rhythm of production; on these being grafted in due course the unpaid labour or tribute to be surrendered to the possessing classes.

But when petty commodity production has developed, we have

* This is clearly seen in the petty commodity production of the Guatemala Indians of Panajachel, as described by Professor Sol Tax. Men, women and even small children are continually on the alert to make a few pence by trade. It is not surprising that exchanges and equivalences are strictly calculated in this society where, Professor Tax tells us, a woman who could not read or write was able to state almost to within a penny the exact cost of production of a carpet on which she had worked the whole of one day. Under conditions like this, if land is sometimes rented in exchange for unpaid labour, sometimes in exchange for a part of the harvest, and sometimes for a money rent, one must suppose that in each case strict equivalences have been worked out, which could only be based on labour-value.[66]

before us producers who are free from any subordination to a collective social organisation. Each producer, within the limits of his physical strength and his capacity to produce (tools, etc.), can produce as much as he likes. These producers are no longer producing use-values for the consumption of a closed community; they are now producing commodities for a market which is more or less extensive, more or less impersonal. The law of value, which co-ordinates exchanges on an objective basis and ensures only equivalents for each commodity exchanged thus *reorganises*, through successful exchanges and unsuccessful ones, the distribution among the different branches of production of the totality of hours of labour at society's disposal. Human labour in primitive societies was *directly social* labour. In petty commodity society, individual labour acquires its quality as social labour only *indirectly*, through the mechanism of exchange, by the operation of the law of value.*

If a craftsman produces more cloth than the market of his society can absorb, part of his production will remain unsold, not exchanged, which will show him that he spent too great a share of the labour-time at society's disposal on producing this cloth, or, in other words, that he wasted social labour time. This waste, in a consciously co-ordinated society, would have been realised in advance, by custom or the observations of other members of the community. On the market, the law of value reveals it only after the event, to the disadvantage of the producer, who does not receive an equivalent for part of his exertion and its products.

These rules nevertheless remain quite obvious at the beginning of the period of commodity production. The proof is to be seen in the fact that in the corporations of Antiquity and in those of China, of Byzantium, of the European and Arab Middle Ages, etc., fixed rules, known to all, laid down alike the labour-time to be devoted to the making of each object, the length of apprenticeship, its cost, and the equivalent normally to be asked for each commodity.[67]†

This obviousness merely gives expression to the fact that with petty commodity production we have reached only a transitional stage between a society consciously governed by labour co-operation, and a society in which the complete dissolution of community ties leaves no room for anything but "objective" laws, that is, laws which are blind, "natural", independent of men's will, as the regulators of economic activity.

* See, in Chapter 18, refutation of current criticisms of the labour theory of value.

† Nadel mentions that in the Kingdom of Nupe the value of commodities is broadly proportional to the labour time spent on producing them.[68]

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MONEY, CAPITAL, SURPLUS-VALUE

Need for a universal equivalent

SIMPLE or developed exchange is carried out in the form of barter, that is, direct encounter between the products being exchanged. For primitive peoples, accustomed to exchanging the same products in accordance with procedures that were traditional and even ritual, barter created no economic "problem".[1]

It is different with generalised exchange and commerce. No longer is a single product, the tribe's surplus, exchanged for other products; a great number of a great variety of products are now exchanged for many other products. The relations of equivalence concern no longer just two products, or two categories of product, but an infinite variety of different goods. It is no longer the labour-time of the potter that is compared with that of the agriculturist; ten, twenty, thirty different crafts have to compare their respective productive efforts from time to time. In order that these exchanges may go on without interruption, the owners of the commodities must be able to get rid of their goods before they have had the luck to encounter purchasers who possess the products they themselves want to obtain in exchange for these goods. For exchanges to be carried out on the basis of equivalence, a commodity is needed in which all the others can express their respective exchange values. This function is fulfilled by the *universal equivalent* commodity.

The appearance of a universal equivalent, of money in all its forms, accompanies the generalisation of exchange and the beginnings of trade. The need for such an equivalent is obvious. Sir Samuel Baker tells of hearing country people shouting in the market-place of Unyoro, in Uganda:

"Milk to sell, for beads or salt! Salt to exchange for lance-heads! Coffee, coffee, going cheap, for red beads!"[2]

If the owners of salt do not want milk but red beads; if the owners of red beads do not want either salt or coffee but milk, none of these exchanges can take place, because there are no owners of commodities in proximity to one another here who are ready to exchange their goods reciprocally. What is characteristic of the universal equivalent is that it is a commodity for which *any other* commodity can be obtained. Suppose that salt became the universal equivalent. At once, the three operations could be carried through without difficulty. The

trader will readily exchange his red pearls for salt, not because he wants to realise the use value of salt but because in exchange for salt, the universal equivalent, he can get the milk he wants.

The universal equivalent is thus itself a commodity; its own exchange-value is determined, like that of any other commodity, by the amount of labour socially necessary to produce it. It is in relation to this real exchange-value that all other commodities will henceforth express their own exchange-value. As a commodity, the universal equivalent also retains a use value which is determined by its natural qualities: when it has finished circulating, the salt ends up by being used for the salting of meat. But alongside its own natural, physical value, the universal equivalent commodity acquires a supplementary use value—that of facilitating the mutual exchange of other commodities, of being a means of circulation and a measure of value.

Thus, in Egypt in the days of the Ramassides, cattle served as universal equivalent, and

1 mat
5 measures of honey and
11 measures of oil

were equal in value to a bull.[3]

At the beginning of the second millennium B.C., in the reign of King Bilalama, silver had become the universal equivalent at Eshuna, in Mesopotamia. On the tax tablets discovered in 1947 at Tell Harmal, we find inscribed the following equivalences (converted into those of the metric system):

12 litres of sesame oil
300 litres of wheat
600 litres of salt
5 kilogrammes of wool
1 kilogramme of copper

were equal in value to one shekel (about 8 grammes) of silver.

In the Hittite code, 500 years earlier than that of King Bilalama, we find a long list of equivalences, from which we extract the following examples.

1 sheep
1 "zimittani" of butter
1 hide of a large ox
4 minas of copper
20 lambskins
2 "pa" of wine
$\frac{1}{2}$ "zimittani" of good oil

were equal in value to one shekel of silver.

3 goats were worth 2 shekels of silver.
1 divided robe was worth 3 shekels of silver.
1 large piece of cloth was worth 3 shekels of silver.
1 cart horse was worth 20 shekels of silver.[5]

What we have here is a real *price list*. The price is nothing but the exchange value of a commodity expressed in a definite quantity of the equivalent commodity. The universal equivalent has become money; price is the expression of exchange-value in money terms.

Evolution of the universal equivalent

Often, the commodities which were most commonly exchanged in a given region became, at the dawn of petty commodity production, the first universal equivalents. These commodities fall into two categories: the products which are of maximum importance for the people concerned (foodstuffs, tools, salt), and ornaments, which are among the first objects involved in any human exchange.

Those peoples who are engaged in both agriculture and cattle-raising usually choose as their universal equivalent either cattle, wheat or rice. Thus, Greeks and Romans adopted the ox as first universal equivalent down to the sixth and fifth centuries B.C. The Indians' word for their national currency, *rupee*, is derived from *rupa*, meaning a herd. The Iranians of the *Avesta* and the Germans of the *Lex Saxonum* also chose the ox as universal equivalent, which indicates the predominance of cattle-raising in the epoch when this happened. In North, East and South Africa, cattle, in the shape of camels, sheep, goats or cows, likewise constituted the universal equivalent among people who were essentially cattle-breeders. The horse played the same part among the Kirghiz, the buffalo in Annam and the sheep in Tibet.

In those cases where cultivation of the land was more important than cattle-raising at the time when the universal equivalent appeared, various products of the soil fulfilled this function. In ancient Japan, rice was for centuries the only universal equivalent. In China it was at first wheat and millet, later rice as well. In Mesopotamia it was wheat. In Egypt, wheat prepared as food, that is, loaves baked in a certain form, soon ousted the ox.

In India too, wheat took the place of the ox as universal equivalent from the fifth century B.C., and in the countryside it retained this function until the nineteenth century. In the Sudan, dates were for a long time used as universal equivalent. In Central America it was maize. In Newfoundland and in Iceland down to the fifteenth century, it was dried fish; in the Nicobar Islands, coconuts; among the primitive tribes of the Philippines, rice; and on the Hawaiian Islands, before Western penetration, salt fish.

The principal tools have also been used as universal equivalents: bronze or copper axes and bronze tripods in Crete; bronze vases in Laos; iron shovels and hoes in Central and East Africa; fish-hooks in the Solomon and Marshall Islands of the Pacific, etc. In China, the names of two of the oldest coins, "pu" and "tsian", meant originally

"farming tool", and come from the names of bronze tools.[6] In Japan, in the seventh and eighth centuries A.D., iron shovels or hoes were the essential forms of movable wealth.[7]

The raw materials from which these tools were made could often in their turn, play the part of universal equivalent. Stone was the universal equivalent on the island of Yap, in the Pacific. In Homeric Greece, when bronze vases were beginning to be used as universal equivalent among the Achaeans of the mainland, the inhabitants of the island of Lemnos already regarded bronze, the metal, as itself the universal equivalent. Ingots and small sticks of iron have played the same role among the more advanced communities in Africa.

With the development of exchange, products of primary necessity, such as the chief foodstuffs or most important tools, may be replaced as universal equivalent by the local *commodity*, that is, the product chiefly bought or sold in relations with foreign traders. Thus we find as universal equivalents packets of compressed tea among the Tatars and Mongols of the nineteenth century; cocoa beans in Mexico in the time of the Aztecs; salt in Abyssinia, in West, Equatorial and East Africa, in Burma, in mediaeval Tibet and among some Indian tribes of North America; pelts in Canada down to the eighteenth century; white squirrel skins in Russia; hempen fabrics in mediaeval Japan; measures of cloth in certain communities of Western Europe in the Middle Ages, and so on. In China, a foot of cloth (*tch'e*) was worth a bushel (*che*) of grain and was used as universal equivalent, alongside wheat, millet and copper money, under the T'ang emperors.[8]

Ornaments, the first use of which may well have been magical,* were often used as universal equivalent in the early days of petty commodity production. Alongside utilitarian objects of bronze, small tripods of bronze thus made their appearance in the Creto-Mycenaean civilisation as universal equivalents. Bronze rings similarly come on the scene in Egypt. Jade fulfilled a similar function among the pre-Columbian Indians of Central America, and turquoises among the Pueblo Indians. Glass or enamel pearls were used for the same purpose in Egypt, and spread from there to Mediterranean Europe. They spread through Africa as a real currency.

The ornament which enjoyed the widest circulation as universal equivalent was the *cowrie* shell. From China and India these shells spread over the Pacific Islands, into Africa and Europe and even into the New World.

"Cowries surpass all other shell currencies in solidity and uniformity.

* The exchange of ornaments or other objects of value in a primitive society, as a magical phenomenon, also has an economic origin. In his *Essai sur le don*, Marcel Mauss explains that these objects "are regarded as replicas of inexhaustible instruments, creators of food, which the spirits have given to one's ancestors."[9]

They are fairly constant both in size and weight, and equal in these respects to foodstuffs such as kidney beans, broad beans, rice, wheat or barleycorns which provided the earliest units of weighing gold and silver."[10]

The precious metals as universal equivalent thus represent a coincidence of the object of primary necessity as universal equivalent and the ornament as universal equivalent. Copper, bronze, silver, gold have always served first of all as raw materials for the making of ornaments. Only with the progress of metal-working are these metals also used to make objects of primary necessity. As soon as this stage was reached, these metals played a vital part in the economy. At the same time they retained a religious, ritual, even magical significance, inherited from the era when they were used only to make ornaments. These factors facilitated the adoption of the precious metals as universal equivalent of all commodities.

Money

The development of international trade usually coincides with the metallurgical revolution. Metals are the chief objects of this trade. The need for a universal equivalent is felt more strongly now. It is not surprising that it should be precisely metals that are most often chosen to fulfil this function. At the start it is still objects made of metal that are used as universal equivalent, but if exchanges become frequent this means complications and extra costs.

In East Africa, iron hoes serve as universal equivalent. The tribes which live in areas rich in iron ore make these hoes, and exchange them for the products of other areas, and in the latter the local smiths often reforge them into weapons or ornaments.[11] In this way, they come to take as their universal equivalent *pure unwrought metal*, measured by weight. Hence the role of weighers of gold, who are synonymous with money-changers, bankers and usurers at the start of every money economy.

But it is tedious to weigh metal, whether or not in the form of ingots, whenever one makes an exchange. After a certain level of commercial development has been reached the State adopts the practice of stamping ingots of precious metal with a mark indicating their weight. Such officially weighed ingots appear from the third millennium B.C. in Mesopotamia and Egypt, and from the second millennium in Europe, in Crete and the Peloponnese, in the centres of the Creto-Mycenaean civilisation. Much later, about 700 B.C., the idea appears of adapting the form of the ingot to the needs of transport over long distances. The King of Lydia, who wanted to attract the trade of the Greek cities to the great entrepôts of his capital, Sardis, undertook the minting of small gold coins, each weighing only a few grammes. One of these coins, henceforth, could be used for the exchange against money of

commodities of comparatively high value. The spread of trade was thus encouraged; peasants and small craftsmen could from now on sell their surpluses for money instead of having to barter.[12] This system of minting coins spread to the Persian Empire, to the Greek cities, and through these civilisations made its way throughout the world affected by their trade. In India and China it seems to have developed independently of Asia Minor. In China, metal coins were in circulation about 1,000 B.C. and were given official weights from 65 B.C. onward.[13]

If the precious metals established themselves everywhere as universal equivalents, this was because they possess a series of intrinsic qualities which merchants and administrators discovered empirically and which make them especially suitable for this purpose.

1. They are easily *transportable*: their high specific weight enables them to concentrate in a modest volume a quantity of metal representing a fairly large exchange-value. This value remains stable: comparatively few technical changes have occurred in the way they are produced, over several millennia.
2. They are *durable*, owing to their resistance to wear and tear, rust, etc.
3. They are easily *divisible*; and the fragments can be easily melted down into larger units.
4. They are easily *recognisable*, owing to specific physical qualities, and any counterfeiting can be detected fairly easily (by changes in weight).

However, while these intrinsic qualities of the precious metals predestine them, in a sense, for the role of universal equivalent as soon as trade has grown to a certain extent, their effective use as such remains dependent on their being produced in adequate quantity in a definite territory. As a rule, gold is produced before silver, and, at the start, even at lower cost. It was so in Egypt of the Pharaohs, in ancient India, in pre-Columbian America, etc.[14]

When the precious metals are hard to come by, other metals are normally employed as universal equivalent. In ancient Greece, before the gold mines of Laurium and Strymon were discovered, which brought riches first to Athens and then to the Kings of Macedonia, gold coins were very rare; silver, copper and sometimes even iron, were the most usual materials for coins. In Laconia, rich in iron, iron money predominated until the third century B.C. In China, where silver and gold are very rare, copper remained until the fifteenth century A.D. the metal base of the currency, and was sometimes replaced by iron. The same scarcity of gold and silver in Japan determined the use there of copper as the general measure of value, from the seventh to the seventeenth century A.D. Then the discovery of big deposits of gold and silver made it possible to mint plenty of coins from precious

metals.[15] It is interesting to observe that even countries which possess great resources in precious metals do not usually start exploiting them until the development of trade really calls for a plentiful supply of currency made of these metals. This is easily explained by the fact that it is only at that stage that people apply themselves actively to looking for these deposits.*

So long as the universal equivalent consists of commodities which possess their own use-value—objects of primary necessity, ornaments, metallic raw materials—their new use-value, which is that of providing a universal equivalent for all other commodities, is only a subsidiary one, which may disappear when the purchaser of this special commodity wants to realise its natural use-value. It is otherwise with precious metals in the form of ingots bearing an official stamp, and later metal coins struck by a public authority. As soon as they appear, the use-value which is common and exclusive to this new commodity consists in its function as universal equivalent of the other commodities. For stamped ingots or minted coins to serve afresh as raw materials for the making of jewellery, they must first be melted down again, ceasing to exist as ingots or coins. We have thus arrived, at the end of the evolution of the universal equivalent, at a commodity which has no other use-value than that of serving as universal equivalent. This commodity is called *currency* or *money*.

Evolution of social wealth and different functions of money

A society which essentially produces use values has as its index of social wealth the accumulation of these same use-values. Among primitive peoples or in a primitive village community, the accumulation of foodstuffs is the best understood expression of wealth and the criterion of social prestige. Among pastoral peoples, social wealth is reckoned in cattle or horses; among agricultural peoples, in amount of wheat, rice, maize, etc. At the beginning of the seventeenth century in Japan, the wealth of the whole country and of each lord was still calculated in weight of rice (*koku* of rice). The accumulation of use values makes possible a concentration of wealth which should not be underestimated. A single family, that of the Tokugawa shoguns, possessed in those days 8 million *koku* of rice, out of 28 million *koku* which was the annual production of all Japan, i.e. a big proportion of the entire national income.[16]

With the spread of trade, the generalisation of exchange, the more and more current use of money, the latter becomes increasingly the main or even the only index of the wealth of individuals, families and nations. Its function is no longer merely to serve as universal equivalent in exchange transactions. Money fulfils at the same all the following functions:

* See on this subject, Chapter 4, as regards Western Europe.

1. It is the *universal equivalent*, i.e. it makes it possible to acquire all the commodities available on the market;

2. It is the *means of exchange*, i.e. it makes possible the circulation of commodities even between owners of commodities who do not want to realise the use-values of their respective commodities;

3. It is the *measure of value* and *gauge of prices*. The value of each commodity is expressed in a quantity, a particular weight of the precious metal, i.e. expressed in money. The price is nothing but this monetary expression of value. As such, *ideal money* can express the price of any commodity at all. To do this one need not *possess* a sum of money, it is enough to *name* it.

4. It is the universal *means of payment*: debts and fines owed to the State, the clergy or individuals, the counter-value of all commodities, services or payments, can be rendered by means of money, in contrast to primitive society in which there are special products for carrying out these different functions.*

Here, "ideal" money is of no use; coins that ring and weigh as they should are needed.

5. It is the *means of accumulating values* and the *means of forming hoards*. Every society needs to possess reserves to meet its requirements in case of natural disasters, such as epidemics, floods, harvest failures, earthquakes, fires, etc., or social disasters, such as wars, civil strife, etc. The original function of the social surplus is to constitute this reserve fund. In a society producing essentially use-values, these reserves consist of stored-up products.

In a society which is beginning to produce commodities on a large scale, it is precious metals, or metal coins, that are accumulated as hoards. In case of need, this hoard, a store of values and counter-values, makes it possible to obtain all the goods that are lacking, even if distant countries have to be applied to. The precious metals are indeed universally recognised as universal equivalents. Experience teaches the peoples that a metal reserve is much more reliable and less perishable than a reserve of wheat or of cattle.[18]

Circulation of commodities and circulation of money

In a society producing simple commodities, money serves as universal equivalent only in a fairly limited number of commercial transactions. Its function is above all to serve as a hoard. It is jealously kept by those who possess it and who utilise it, at most, for increasing or improving their personal consumption. "Down to the end of

* At the beginning of the era of petty commodity production, these different functions of money can be fulfilled by *different* products. Thus, in Babylon in Hammurabi's time, barley was the universal means of payment, silver the measure of value, gauge of prices and doubtless also means of accumulation, while as universal equivalent they used barley, wool, oil, silver, wheat, etc.[17]

the wars with Persia," says Glotz, "Greek society remained in the hoarding stage. Money was accumulated and not set to work."[19] It was the same in Western Europe in the early Middle Ages.[20] In fact, in a mode of production which is essentially based on co-operative organisation of labour within a patriarchal family and a village community, and on the individual work of the town craftsman, money, even when it circulates, is employed only for acquiring use-values. It remains a subordinate element, an *instrument of commodity circulation.* The latter takes place according to this diagram:

$$\underset{\text{Commodity}}{C^1} \quad — \quad \underset{\text{Money}}{M} \quad — \quad \underset{\text{Commodity}}{C^2}$$

In the municipal market of the Chorti Indians, in Guatemala, a cabinet-maker appears, the possessor of some wooden chairs. He does not want to (or he cannot) realise the use-value of his commodity; on the contrary, he wants to get rid of it, that is, to realise its exchange-value. In order that this operation may take place, he must meet the possessor of a sum of money, M, who will be willing to realise the exchange value of the chairs. It is further necessary that this possessor of money be ready to get rid of his money because he wants to realise the use-value of the wooden chairs. Thus the sale of the chairs, $C^1 — M$, takes place to the satisfaction of both partners.

But the possessor of the wooden chairs wanted to sell his commodity so as to acquire another one, for example, some woven mats from Amatilla district which he needs for his home. Taking the money he has obtained by selling his chairs, he goes in search of a producer-possessor of woven mats, in order to buy them from him. If such a producer-possessor turns up in the municipal market, the purchasing transaction $M — C^2$ can as a rule take place. At the end of these two successive operations of sale and purchase, the cabinet-maker has, instead of a commodity which he did not want to realise the use-value of, a new commodity which is of use to him. Two commodities, the wooden chairs and the woven mats, have disappeared from the market because their use-value has been successively realised by two purchasers. On the other hand, the sum of money, M, has passed through the hands of three persons: from the purchaser of the chairs to the cabinet-maker, and from the cabinet-maker to the maker of woven mats. At the start of the era of petty commodity production, the last owner of this sum of money, the maker of woven mats, will in his turn be able to use this money for two purposes only: either to put it by as a reserve, a hoard, savings, against a rainy day; or to use it to buy some other commodity.

But when a society at the stage of petty commodity production makes contact with a more advanced trading civilisation, owners of money who want to make this possession of theirs "circulate", "work",

"pay", appear alongside owners of commodities who merely want to get rid of these commodities in order to meet some needs. Thus, the professional traders among the Chorti visit a certain number of districts, often three or four between them, with a sum of money sufficient to buy all the surplus of the craftsmen they meet. This surplus they transport to the markets of the provincial capitals. They do not buy commodities in order to realise their use-values, like the small producers of chairs and woven mats. On the contrary, they buy commodities in order to *sell them again at a profit* to the inhabitants of the towns whose markets they visit.

The circulation of commodities, that is, the operations carried out successively by the owners of commodities in a society based on petty commodity production, consists in *selling in order to buy*, selling one's own products in order to buy products whose use-value one realises.

The circulation of money, that is, the operations carried out successively by the owners of *money capital* in a society in which professional trade already exists alongside petty commodity production, consists, on the contrary, in *buying in order to sell*, buying another's products so as to sell them again at a profit, that is, to increase by a *surplus-value* the money capital one possesses. *Capital is, by definition, any value that is increased by surplus-value.*

If we ask again the question we asked regarding the maker of woven mats—what will he do with the money he has just received from the cabinet-maker?—there are no longer two but three replies we can give, when it is a matter of the money increased by surplus-value which the Chorti professional trader has obtained at the conclusion of his activities and travels. He can, as before, use it simply to obtain what he needs to feed, clothe and house himself and his family, or to form a hoard. If he does either of these we have not left the limits of petty commodity production.

But he can also act in a different manner: he can use his money, increased by surplus-value, either wholly or in part, to go to other districts, buy other craft products, sell them again, dearer, in other markets, and find himself at the end of his transactions in possession of more money than he started with. In this case we have left the limits of petty commodity production strictly so called and entered the stage of the circulation of money, the *accumulation of money capital*, which takes place according to the formula:

$$\underset{\text{Money}}{M} - \underset{\text{Commodity}}{C} - \underset{\text{Money + surplus value}}{M^1}$$

The difference between the circulation of commodities, $C^1 - M - C^2$, and the circulation of money, $M - C - M^1$, consists then in this; in the circulation of commodities, the *equivalence* of the commodities C^1 and C^2 which are found at the extreme ends of the circulation pro-

cess is the necessary condition for the two operations to be carried through. No simple producer of commodities can acquire commodities of a value higher than that of the commodities he has himself produced and sold. In the circulation of money, on the contrary, the appearance of a surplus-value ($M^1 - M$) is the necessary condition for circulation to take place: no owner of money-capital is going to "circulate" his money only to see come back to his pocket exactly the same amount which left it!

Surplus-value emerging from the circulation of commodities

Surplus-value has just appeared, then, in the course of the circulation of money. It seems, indeed, to be the essential aim of this circulation. But where has it come from?

In a society based on petty commodity production, the surplus-value obtained by owners of money comes either from *trade* or from usury. It is only when trade and usury have developed extensively that the possessing classes becomes conscious of the need to "make their money pay". The fifth century B.C. saw the rise of petty commodity production not only in ancient Greece but also in China. During this century, Chi-Jan, teacher of the great merchant, Fan-lin, instructed him in "the laws of accumulating capital" and explained to him that, above all, "one must not allow money to be idle".[21] Eighteen hundred years later, when petty commodity production had attained an unprecedented development in the empire of Islam, the historian Ibn Khaldun judiciously noted that "trade, regarded as a way of earning one's livelihood . . . consists in artful tricks performed in order to establish between the buying price and the selling price a difference from which one can make a profit".[22]

It was no different in Ancient Greece, in China in the classical epoch, or in mediaeval Europe. The Odyssey speaks of the Phoenicians, the typical trading people of antiquity, as "clever navigators, deceitful traders". The biographer of St. Godric of Finchale, who engaged in trade at the end of the eleventh century, explains that "he bought in various countries goods which he knew were scarce and therefore dearer elsewhere, and carried them into other regions where they were almost unknown to the inhabitants and therefore seemed to them more desirable than gold".[23]

In fact, large scale trade consisted in going to buy goods at low prices from peoples at a lower stage of economic development, or perhaps not even arrived yet at the stage of general exchange, and who for this reason sold their products very cheap. Then one went to sell these same goods at a much higher price wherever they were very scarce and in demand, where their real value (the labour-time needed to produce them) was unknown, where fashion made certain goods especially attractive, or, better still, where as a result of disasters,

famines, etc., a particularly marked shortage of these goods prevailed.

The surplus-value of the traders in an epoch like this comes from their buying goods below their real value and selling them above this real value. There is nothing surprising in the fact that in these conditions Mercury, lord of trade, is also regarded as the king of thieves. It is not surprising that among the African people called the Hereros, "who have no words for 'buy' and 'sell' but merely for 'barter', a merchant in the European sense 'is always a deceiver' because he seeks to win something by exchange."[24] It is not surprising that the Navajo Indians always have the impression that an unusually rich man has obtained his wealth by dishonest means.[25] All folk wisdom repeats the same thing, in all the languages of the earth. As getting something cheap is the basis of this trader's profit, pure plundering and piracy are to be found at the cradle of surplus value.

"More typical still of repeated enrichment at the expense of others which is, so to speak, admitted, is the frankness with which Ulysses relates that he conducted nine piratical expeditions before the Trojan war, or the way he questions the shade of Agamemnon, asking him whether he fell in battle for his city or while he was 'stealing the oxen or the sheep of the State', as though there were little difference between these two activities."[26]

From the earliest times, "piracy is the first phase of trade. This is so true that from the end of the ninth century, when they stopped their plundering, they [the Norsemen] transformed themselves into traders."[27] We know that Aristotle still regarded piracy and highway robbery as legitimate ways of earning one's livelihood. Solon gave the law's protection to associations of pirates, just as the British and French monarchies did 2,000 years later in relation to privateers.[28] The Aztec merchants, combining the function of traders with that of conquerors, imposed tributes to be paid wherever they could, and provide a typical example of the inextricable ties linking the origins of trade with brigandage. Here are clearly revealed the origins of commercial surplus-value![29]

The trade-brigands called Varangians (the word *varyag* means in Slavonic "cattle-merchant"), men of Scandinavian origin who ravaged Russia from the eighth to the eleventh century of our era, are another typical example of the same phenomenon: "The trading and plundering parties of Norsemen-Swedes penetrated into Slavic territory. As merchants of the eighth and tenth centuries, they went there in quest both of trade and plunder. Robbery and conquest were alike a source of trade, with trade supplementing robbery."[30]

Trade and plundering are inextricably connected in the Sahara:

"The hostile tribes organised against their foes, and those protected

by the latter, plundering operations planned as real trading expeditions, which is why they have a place in this treatise. They were governed by customary law, which laid down in detail the role of the capitalists who financed the expedition, that of those who carried it into effect, and the profits of each, in proportion to his participation. It was a typical contract of a very ancient kind which was still in use, with the same features, thirty years ago, in Upper Mauretania as well as in the Sahara."[31]

This system makes possible an extremely rapid enrichment of a few merchants, or of the merchant class of a people. The profits are very high, often exceeding 1,000 per cent on a single transaction. In the fourteenth century merchants bought Tatar horses in the Crimea for one dinar and sold them in India for 25 or even sometimes 50 dinars, we are told by the great Arab traveller Ibn Batuta.[32] The Dutch East India Company bought spices in the seventeenth century for 7·5 cents a pound, in the Moluccas, and sold them in Holland for 300 cents.[33] Such differences between prices are possible only if the backward condition of a people implies that it is unaware of the exchange value of a commodity on the world market. The Phoenicians knew what they were doing when they regularly preferred to do business with barbarian peoples whom they could oppress politically.[34]

Under the Sung dynasty "the peoples of the North [of China] whose usual food was meat, cheese and milk, liked tea to drink. To get it they used to come and sell their horses on the 1st and 2nd of February and March. At the start, when exchanges of tea against horses began, they would offer a good horse for a dozen pounds of ordinary tea. The Chinese tea monopoly drew substantial profits from these transactions. Soon smuggling began, and the foreigners, informed as to prices, demanded ten times as much for their horses."[35]

However, a circulation of money which results in surplus-value that originated in this way is *sterile* from a global point of view; it does not increase the total wealth of human society.* It consists in fact of a *transfer* of wealth, pure and simple; what one gains the other loses, in absolute value. Social wealth remains unchanged.

Let us represent by C the value of a quantity of amber produced by the inhabitants of the Baltic coast; by M the price paid by the Phoenician merchants to the producers of amber; and by M^1 the

* At least from the static standpoint. From the historical point of view, the concentration of surplus-value obtained by plundering, direct or indirect, made possible a development of merchant capital and world trade which undoubtedly favoured the spread of culture and the growth of productive forces. It must also be stressed that the surplus-value of merchant and usurers' capital represents to some extent the appropriation by these new possessing classes of part of the agricultural surplus-product which was the income of the old possessing classes (of the Egyptian lord in the example which follows).

selling price obtained by these same Phoenicians in Egypt. Before these exchanges took place, the three partners possessed altogether the values C + M + M^1: C belonged to the Danes, M to the Phoenician merchants and M^1 to some rich Egyptian lord. When the exchanges have been completed, the Danes have M, the Egyptian lord has C, and the Phoenician merchants have M^1. The total of these three values is still C + M + M^1. Society has been neither enriched nor impoverished. A transfer of value has taken place, that is all.

The Danes have been impoverished by the difference in value between C and M and the Egyptian lord by the difference between M^1 and C, whereas the Phoenician merchants have enriched themselves by the difference in value between M^1 and M, which represents exactly their surplus-value (or the sum of the losses of value suffered by their two trading partners). It is always the same when surplus-value is acquired through the circulation of money: it is created at the expense of a partner, and does not lead to the enrichment of society as a whole.

It may be objected that the Danes have suffered no real impoverishment unless they are already living in a trading economy, and the very barbarism that causes them to accept this unequal exchange implies that they are unaware of this "loss of value". Moreover, this whole argument supposes a unified system of values, whereas in reality what we have before us are different civilisations, with different systems of production and different values, which touch only at their peripheries.

This objection is not valid if one regards exchange value as something *objective* and not subjective. It is precisely trade that unifies values by establishing international markets, in which nations at different levels of development may well participate. It is, furthermore, enough to study the history of certain peoples in certain periods to realise that the idea of impoverishment by *transfer of value* is an obvious reality (cf. West Africa from the sixteenth to the nineteenth century, etc.).

Surplus-value arising from commodity production

When petty commodity production is at its beginning, social wealth remains almost stationary, and the surplus grabbed by the owners of money may simply arise from an absolute impoverishment of the successive buyers and sellers. The history of Antiquity is to a large degree the history of the successive conquest of the hoards of various kingdoms and then their concentration, also by way of conquest, by the Kings of Persia and by Alexander the Great. "The new wealth with which imperialism enriched Babylonia and Egypt was really just loot, and represented no addition to the total supply of real wealth available to humanity . . ."[36] The increase of real social wealth in that period is chiefly a function of the increase in the productivity of agri-

cultural labour and the spreading knowledge of craft techniques, both connected with the growth of population. As the agricultural and craft techniques concerned are fairly simple and do not require costly equipment, the expansion of trade in ancient times towards the barbarian parts of the world ended by introducing there the same conditions of production as at the centre, and so itself put an end to the inequality in levels of economic development which had made this trade profitable. One of the chief reasons for the blind alley which ancient merchant capital got into, and for the decline of the Roman empire, is to be found in this simple fact. In the same way, *usury*, while it is a frequent source of individual enrichment, does not in the least signify an enrichment of society as a whole, since it represents, even more clearly than pre-capitalist trade, a simple *transfer of values* from one person to another.

Now, when we examine the evolution of certain societies based on petty commodity production, such as Greece from the sixth to the third century B.C., China from the eight to the third century B.C., the Islamic world from the eighth to the twelfth century A.D., or Western Europe from the eleventh to the fifteenth century, we observe that enrichment of the entire society did in fact occur. This enrichment exceeded by far the increase in agricultural and craft production; nor was it the mere result of looting economically backward countries, since it involved the totality of the countries linked by trade relations. It could, then, have resulted only from a mass of *new values* making their appearance in money economy. How could the creation of new values occur during the circulation of money $M - C - M^1$?

We know already that value is only crystallised human labour. Money cannot, it would seem, create fresh values. But instead of buying commodities which he will sell for more than their value, the merchant can use his money to buy *a commodity which has, as its use-value, the quality of producing new values*: human labour-power.*

In the fifth and fourth centuries B.C. the purchase price of an adult male slave varied in Athens between 180 and 200 drachmas. Suppose a merchant buys such a slave. The average net daily income, after deduction of maintenance costs, obtainable from a slave amounts, according to Xenophon and Demosthenes, to an obolus a day, or allowing for holidays, 300 oboli or 50 drachmas a year.[37] After ten years' work this slave will thus have earned his master 500 drachmas,

* On this matter Aristotle and also the authorities of the Catholic Church, from the Council of Nicœa to St. Thomas Aquinas, had quite correct ideas, not as advocates of the labour theory of value but as representatives of an essentially natural economy which was defending itself against the dissolving invasion of money and usury.

or 300 drachmas of surplus value.* Buying a slave thus constitutes a source of surplus value of a special kind. This surplus value is not the result of a mere appropriation of existing values, a mere transfer of values from one pocket to another. It results from *the production of new values*, the appropriation and sale of which are the source of surplus value.

In fact, the biggest fortunes in Athens came from the employment or hiring-out of slaves for work in the mines. Possessing or hiring-out as many as 1,000 slaves, Kallias the Athenian was able to accumulate 200 talents, Nikias 100 talents.[40] At one obolus a day of net income produced by a slave, 100 talents (36,000 oboli) represents the income from 36,000 days worked by these slaves, without taking into account the recovery of the purchase price. The orator Demosthenes makes exactly the same calculation when he records the income received by his father, who owned two manufactories, one making furniture, with 20 slaves who each brought him, net, one obolus a day, and the other making swords and knives, with 30 slaves who each brought him, on the average, 1·5 oboli a day.[41]

The surplus value produced by a slave, leaving out of account the recovery of his purchase price, represents the difference between the value of the commodities he produces (and which his master appropriates) and the cost of production of these commodities (cost of raw material, overheads, including depreciation of tools, and maintenance costs of the slave himself). The figures quoted above show that this difference can be considerable. Otherwise, there would not have been the thousands of entrepreneurs and landowners that there were in the ancient world, ready to buy slaves in order to set them producing a large quantity of craft and agricultural products, the sale of which brought in a substantial surplus value to these slave-owners.

Two thousand years later there are no more slaves in Western Europe. Herr Fugger—like Messrs. Nikias and Kallias, a concession-holder and later owner of mines—does not buy slaves any more. He does not have to invest a small capital, outright, recoverable only over

* We do not know what the daily maintenance costs of a Greek slave amounted to. But De Castro records that in the British West Indies in the eighteenth century the food for a black slave for whom £50 had been paid cost only 25s. a *year*.[38] And Juan Leon Africano tells how, two centuries earlier, the Portuguese planters reduced to zero the maintenance costs of the slaves on Sao Thomé: "The slaves were compelled to work the whole week long for their masters, except Sunday: that day they worked for themselves, sowing millet, yams or sweet potatoes, and lots of vegetables, such as lettuces, cabbages, leeks and parsley. They kneaded cakes of millet flour; their drink was water or palm wine, and sometimes goats' milk; their only clothing was a cotton loin-cloth which they wove themselves. Thus, the masters had to pay nothing for the livelihood of their servants."[39]

a dozen years, in order to acquire a potential labour force.* He recruits *wage* workers in the villages of Bohemia and the Tyrol. He pays them by the week or by the day. This wage, while a little more than the value of the food given to the slaves of Messrs. Nikias and Kallias, is no more than the minimum necessary for the subsistence of the worker and his family.

The new value created by the workers whose labour power Herr Fugger buys by the day or by the week, must of course exceed the value their employer spends on their wages, or else he would not be interested in employing them. It must even be confessed that this difference was considerable, for, just like Messrs. Nikias and Kallias, Herr Fugger became the richest man of his age, to whom barons, dukes, princesses, kings, even the Emperor in person, owed real fortunes.

The individual enrichment of merchants and manufacturers by the exploitation of labour-power, whether it be servile, half-free or free, is achieved by transferring to the pockets of these entrepreneurs the *new values* created by this labour-power. It is an enrichment which is accompanied by an overall increase in social wealth.

The surplus value which makes its appearance in the circulation of money is thus not created in this circulation. It is the result either of the appropriation through trade or usury of a value belonging to others, or of the appropriation of new values created by the labour power which has been bought. In the latter case, the surplus value is nothing but *the difference between the value created by the worker and the cost of maintaining him.* The totality of the capital existing in the world is only the accumulated result of this dual appropriation, as was soon appreciated by sharp observers. Fifteen hundred years before Proudhon borrowed from the Chartist leader O'Brien his famous sally: "What is property? Theft!" the golden-mouthed bishop John Chrysostom told the rich merchants of Antioch: "You possess the results of theft, even if you are not yourselves the thieves."

Capital, surplus-value and social surplus product

Primitive man learns by long and painful experience how to avoid famines and guarantee himself regular nourishment which will enable him to increase the productivity of his labour and bring the production of the means of life under his own control. For this reason he produces a surplus in excess of his necessary product. "On the whole it may be said that capital in Tikopia is accumulated by surplus production over immediate requirements rather than by abstinence *per se*," states the anthropologist Raymond Firth.[43]

* A slave-owner, indeed, runs a risk. He buys only a *potential* labour force; slave labour has always involved an enormous wasting of human labour. The Roman writer Varro estimated that in his day 13 out of 45 of a slave's working days were a dead loss.

We do not intend to discuss at this point whether the word "capital" is correctly used here. But the historical survey we have carried out has made it possible for us to affirm that nowhere in the world have social enrichment, the generalisation of trade, primitive accumulation of money and the production of a growing mass of surplus value been the result of voluntary abstinence on the part of producers who thus make savings and become rich. Everywhere the generalisation of commodity production, the primitive accumulation of money capital and its circulation at a more rapid rate so as to obtain surplus value, have been the outcome of an appropriation, a *grabbing by one part of human society of the social surplus product which has been produced by the rest of this same society*. This appropriation may, indeed, be the result of an "abstinence", namely, that of the producers, reduced to subsistence level by the grabbers of the surplus product. Unfortunately, it has been the grabbers and not the unwilling heroes of this abstinence who have emerged enriched from the ordeal.

The growth of the productivity of labour is an indispensable condition for the appearance of capital and surplus value. Surplus value which has emerged from the process of production, as we have seen, represents only the difference between the product of labour and the cost of maintaining labour. So long as the product of labour is more or less equal to the cost of maintaining labour (that is, to the means of subsistence of the producer and his family), there is no objective basis for the lasting and organised exploitation of labour power. It is only when growth in the productivity of labour has made it possible to recognise such a difference, such a surplus product, that the struggle to appropriate it can break out.

While, however, capital is the historical result—not an automatic result, but arising in particular conditions that can be specifically defined—of growth in the productivity of human labour, it is not synonymous with the *means* that ensure such growth. This confusion is still made even by specialists who are well informed regarding the historical facts. Thus, for the historian Fritz Heichelheim the neolithic revolution, the transition to agriculture and cattle-raising, means the appearance of "capital, . . . that is, the creation of the first reliable way of transferring human work into something which gave rent for a longer time and even for the duration of generations".[44]

A peasant who had sown 1,000 seeds of wheat on the banks of the Euphrates harvested 100,000. But this 'rent' no more made a capitalist of him than striking a banana tree with a stick to make the fruit fall sooner makes an industrialist of a chimpanzee.

Each important technical invention represents an important saving of human labour for society, and each tool that makes it possible to produce at less cost can be regarded as a "store of accumulated labour" which brings in a more or less permanent "rent" in saving

of labour. All this, however, relates only to the progress of the productivity of labour in *the production of use-values*.*

Capital and surplus value do not appear until *exchange* and *money* have developed, and until an increased average productivity of labour is used no longer so as to enable *the whole of society* to achieve a saving in labour-time but so as to ensure for *one part of society* the products of this increased productivity, by subjecting the rest of society to a heavier burden of work. Capital is the culmination of the history of the appropriation of the social surplus product by one part of society at the expense of another, and not the culmination of the history of the saving of human labour accomplished for the benefit of human society as a whole.

Appropriation of the surplus value produced during the process of production assumes the existence of a market economy and the sale of commodities produced by producers who do not own the products of their labour. Surplus value, in this sense, is the *monetary form of the social surplus product*. In a society producing use values, the social surplus product which a possessing class appropriates is appropriated directly, either in the form of labour (*corvée*) or of products (land rent, tribute). In a society producing commodities, the social surplus product appropriated by the possessing class is indirectly appropriated, in the form of money, by the sale of commodities, from the results of which sale the costs of maintaining labour and the other costs of production have been deducted.

Like petty commodity production, capital developed originally within the pores of a society which was first and foremost engaged in producing use values. Surplus value appeared and developed in a society in which the social surplus product essentially retained the form of use-values. The entire history of capital, from its origins to its apotheosis in the capitalist mode of production, is the history of the slow disintegration of this fundamentally non-market economy, through the effect of trade, of usury, of money, of capital and of surplus value. Capital is embodied, in a non-trading society and in contrast to the old-established possessing classes, in a new class, the bourgeoisie. Capital is only a new social relation between producers and owners of capital, a relation which replaces the old social relations between small commodity producers, on the one hand, and

* It could be objected that this is merely a matter of definition. If so, it would be necessary to find *another expression* to indicate capital and surplus value which arise from commodity production and the circulation of money. The confusion consists in the simultaneous use of the same term, capital, for every technique of growth in the productivity of labour, on the one hand, and for specific social relations, based on exploitation, on the other. Etymology meets economics here, moreover, since H. Sée says that the word "capital" means originally only *a sum of money which is to be invested so as to earn interest*.[45]

between peasant producers and those who take the surplus product of agriculture, on the other.

The law of uneven development

The study of the origin and development of economic categories is necessarily a study of economic history, and an analysis of the economy of those peoples of our own day which have remained at stages of historical evolution long since left behind in the capitalist world. It actually isolates "pure" forms which in real life are combined, or have more or less degenerated. To reduce economic history to a series of "stages" or to the successive appearance of "categories" is to make it excessively mechanical, to the point of rendering it unrecognizable. But to eliminate from historical study any allusion to successive stages of economic organisation and any reference to the progressive appearance of these "categories" is to make it merely incomprehensible.

Marxism has often been compared to Darwinism, and the evolution of societies to that of species. Like any other comparison, this one includes points of resemblance and of difference. In biology, too, however, a *dialectical* conception of evolution is gradually taking the place of the mechanical, unilateral and linear conception.* The Marxist conception of economic and social change has no place for any fatalism or automatism. No phase of social organisation "must" necessarily succeed another.

Alongside linear progress there is progress by leaps. Economic evolution can lead to blind alleys or age-long stagnations, especially through excessive adaptation to a specific environment; that seems to have happened with the agricultural peoples of South-East Asia.[47] Moreover, Marxism would not be dialectical if it did not recognise, alongside societies which are progressing (from the standpoint of the average productivity of labour), societies in marked regression.[48]

The law of uneven development, which some have wished to restrict in application to the history of capitalism alone, or even merely to the imperialist phase of capitalism, is thus a universal law of human history. Nowhere in the world has there been a straight-line progressive evolution, starting from the first stages of fruit-gathering and ending with the most advanced capitalist (or socialist) industry. The peoples which reached the highest level of development of productive forces at the stage of food-gathering, hunting and fishing—the

* The idea of a straight-line progress from the anthropoid apes up to the emergence of man has now been dropped. Today it is supposed either that the anthropoid apes and man have simian-like ancestors in common, or that man is descended from an anthropoid ape less specialised than any of those that exist today. Thus, there has been progress combined with stagnation, retardation or proterogenesis.[46]

Eskimos, and, above all, the Indians of the North-West coast of America—did not invent agriculture. This first appeared in the well-watered valleys of Abyssinia, Anatolia, Afghanistan, Transcaucasia, and North-Western India.[49] But it was not there, either, that agriculture gave birth to civilisation, which is the child of irrigation.*

Agricultural civilisation reaches its most advanced phase in Egypt, Mesopotamia, India and China. It was not however, in these countries, but rather in Greece, at Rome, at Byzantium, and in mediaeval Europe (Italy and Flanders) that the progress of the productivity of labour culminated in the most advanced forms of crafts and trade within the framework of petty commodity production. And for petty commodity production to produce the industrial revolution and the capitalist mode of production, we have to move still further north, to England, a country which had long remained backward as regards crafts and trade, and which in the seventeenth century was still far from being the richest in the world or in Europe. Nor was it in Great Britain or in any other advanced capitalist country that capitalism was first overthrown, but in Russia, a typical backward country at the beginning of the twentieth century. May we venture a prophecy and say that it will not be in Russia, either, though this was the first country to introduce a planned economy based on socialisation of the chief means of production, that we shall first see the emergence of a completed socialist society, with the withering away of classes, commodities, money and the state?

* Gordon Childe, too, insists on the absence of any identical succession of stages passed through by the peoples in the neolithic epoch. "Evolution and differentiation go hand in hand," he concludes; but he also mentions a number of instances of convergence.[50] Is not evolution as a *combination of differentiation and convergence* an eminently *dialectical idea*?

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THE DEVELOPMENT OF CAPITAL

Forms of agricultural surplus product

AGRICULTURAL surplus product is the basis of all surplus product and thereby of all civilisation. If society had to devote all its working time to producing the means of subsistence, no other specialised activity, whether craft, industrial, scientific or artistic, would be possible.

Agricultural surplus product can appear in society in three different forms. In the fourth century B.C. the Chinese philosopher Mencius already distinguished between these three essential forms of agricultural surplus product: surplus product in the form of work (labour services), in the form of products (use values), or in the form of money.[1] *

Agricultural surplus product supplied in the form of unpaid work or labour services makes its appearance at the dawn of every class society. At the beginning of the Middle Ages in Western Europe, the land of the village was divided into three shares: the lands which the peasants cultivated for their own needs; the lands which the lord exploited directly by means of the unpaid work of peasants who were obliged to render labour services; the common lands, woods, meadows, wastes, etc., which remained more or less freely at the disposal of the peasants and of the lord.[2] The peasant had to divide his working week between work on his own fields and work on the lord's land. The former, *necessary labour* from the social point of view, provided the product needed for the subsistence of the producers. The latter, *surplus labour* from the social point of view, provided the surplus product needed for the subsistence of the possessing classes not participating in production.

A system similar to this has operated in innumerable countries at different epochs of history. Under the feudal system which existed in the Hawaiian Islands before the coming of the whites, the peasant had to work one day in five on the lands exploited by the landowner.[3] In Mexico, before the agrarian reform, there existed "the custom of paying rents for small subsistence holdings by two or three days per week of unpaid labour on the estates".[4]

* It is interesting to note that this same Mencius regards labour services as the most advantageous form of surplus product from the standpoint of a state which seeks to protect the peasantry from the exactions of the landowners, because it gives the peasants the maximum guarantees of stability.

Alongside surplus product supplied as unpaid work there may appear surplus product paid in kind. The serfs of the Middle Ages in Western Europe had to provide the lords not only with labour services but also with rent in kind (in agricultural or craft products). Similarly, in the Hawaiian Islands, rent in kind had to be supplied, over and above labour services.[5]

In Japan rent in kind (*so*) existed alongside labour services (*etachi*).[6] In China rent in kind appeared alongside labour services and gradually took their place, except as regards large-scale works of public utility. In fact, payment of rent in kind, that is, of agricultural surplus product in the form of use values (wheat, rice, wine, cloth woven in the peasant's household, etc.) fairly soon in history became the predominant form of surplus product, and remained in being for thousands of years, with little modification. In the history of Egypt, agricultural surplus product retained this form of provision of goods in kind from the time of the Pharaohs down to the empire of Rome and Byzantium. Each year for seven centuries, as payment of rent, 20 million *modii* of wheat were sent to Italy, then 24 million *modii* to Byzantium, or about 12·5 per cent of the total production of Egypt.[7]

So long as agricultural surplus product retains this form of rent in kind, trade, money, capital exist only *in the pores of a natural economy*. The bulk of the producers, the peasants, hardly ever appear on the market, consuming as they do only what they themselves produce, after deducting the surplus product.

The progressive increase in agricultural production is taken by the lords, who sell it on the market. But, for the same reason, the bulk of the population is unable to buy the products of craftsmen working in the towns. These products thus remain chiefly luxury goods. The narrowness of the market severely limits the development of craft production.

This was how ancient Greece, the Roman empire, the empires of Byzantium and of Islam, with India, China and Japan down to recent centuries, actually lived. The often remarkable splendour that petty commodity production and international trade were capable of attaining within these societies should not conceal from us their basically agricultural character.[8] So long as agricultural surplus product retains the form of goods in kind, trade, money and capital could develop only superficially within such a society.

The transformation of agricultural surplus product from rent in kind to money rent turns the social situation thoroughly upside down. In order to pay his rent, the peasant is henceforth obliged to sell his products himself on the market. He leaves the condition of a natural and closed economy and enters an essentially money economy. Money, which renders possible the acquisition of an infinite variety of goods, allows an infinite range of needs to develop.[9] Economic life quits its

centuries-long torpor and relative equilibrium and becomes dynamic, unbalanced, spasmodic. Production and consumption develop along with the unprecedented expansion of trade. Money penetrates everywhere, dissolves all traditional bonds, transforms all established relationships. Everything is given a price. A man's worth is no longer estimated otherwise than according to his income. Universal venality accompanies the triumph of money economy, as Saint Thomas Aquinas observed early on.[10] At the same time, money begins to conceal the real economic relationship, formerly transparent, between serfs and lords, between necessary and surplus labour. Landowners and tenants, employers and wage-earners, meet on the market as free owners of commodities, and the fiction of this "free exchange" hides the continuation of the old relationship of exploitation under its new money forms.*

The transformation of agricultural surplus product from rent in kind into money rent is not the inevitable result of the expansion of trade and money economy; it results from *the existing relation of forces between the classes.*

"The rise of money economy has not always been the great emancipating force which nineteenth-century historians believed it to have been. In the absence of a large reservoir of free landless labour and without the legal and political safeguards of the liberal state, the expansion of markets and the growth of production is as likely to lead to the increase of labour services as to their decline."[11]

"The development of exchange in the peasant economy, whether it served the local market directly, or more distant markets through merchant middlemen, led to the development of money rent. The development of exchange in the lord's economy, on the other hand, led to the growth of labour services . . ."[12]

The typical example in this connection is the evolution of village economy in eastern Europe, including eastern Germany, from the fifteenth and sixteenth centuries onward; there, labour services, with the attachment of the serf-peasants to the land, continually increased,† following the development of production of agricultural commodities for the international market, on the lord's estates.

For money rent to take the place of rent in kind, the extension of money economy must be accompanied by economic, social and political conditions (the role played by the central authority, leaning for

* If the serf was attached to the land, the land was also attached to the serf. "The land holds him and he holds the land," said Fustel de Coulanges. In "freeing" the serf, the market economy also enables the landowner to separate him from his means of subsistence. This dialectical aspect of economic freedom is usually overlooked by liberal critics of the mediaeval economy.

† Duke Ferdinand I of Silesia proclaimed in 1528: "No peasants or gardeners, nor the sons or daughters thereof, may leave their hereditary lord without his consent."[13]

support on the urban bourgeoisie) such that the landowners find themselves obliged to leave in the peasants' possession a substantial part of their increasing production.

Accumulation of use-values and accumulation of surplus-value

So long as the agricultural surplus product retains the form of rent in kind, the accumulation of wealth by the possessing classes takes place essentially in the form of accumulation of use values. Agriculture supplies as use values only foodstuffs, clothing, wood and stone for building houses. Thus, the possessing classes have no interest in developing agricultural production to an unlimited extent. Their own *consumption capacity* constitutes the ceiling of the development of the productive forces:

"Having no means, for lack of outlets, to produce for sale, he [the large-scale mediaeval landowner] has thus no need to worry about obtaining from his men and his land a surplus which would only be an encumbrance to him. Compelled to consume his reserves, in person, he restricts himself to keeping them within his needs."[14]

In the Hawaiian Islands, where the surplus product takes the form, almost exclusively, of foodstuffs, the "demands (of the landowners) were further restricted by the perishableness of much of the produce (fish, bananas, sweet potatoes, *poi*); and in the circumstance that there was no reason for the chiefs to take more than they could themselves use . . . And although the *alii* (feudal lords) prided themselves justly upon their fatness and stature—the women especially were proud of their bulk—there was a limit to their power of consumption."[15]

When exchange and trade begin to develop, the possessing classes have a new interest in increasing production. In exchange for the part of the agricultural surplus product which they do not manage to consume themselves, they can acquire luxury products, jewels, domestic utensils of great value and beauty which they hoard in order to obtain both social prestige and security in the event of disasters. The Odyssey lists such treasures accumulated in the hero's storehouse, the *thalamos*: jars of old wine and vases of scented oil, heaps of gold, bronze and iron, rare weapons, rich fabrics, delicately carved cups, etc.[16]

With the generalisation of exchange and trade, the possessing classes receive a fresh stimulus to develop production. In exchange for that part of the agricultural surplus product which they do not themselves consume, they can now acquire rare consumer goods from distant countries. Their needs multiply, their tastes become more refined. Hoards of incalculable value are accumulated.

No longer are wheat, wine, oil or precious metals in the raw state subject to hoarding. Precious stones and works of art from the hands of the most famous craftsmen (or artists) are alone worthy to enter

the palaces of the great. Hitti thus describes the wealth accumulated by the Egyptian caliph Al-Mustansir (1035–1094): "Precious stones, crystal vases, inlaid gold plates, ivory and ebony inkstands, amber cups, phials of musk, steel mirrors, parasols with gold and silver sticks, chess-boards with gold and silver pawns, jewelled daggers and swords and embroidered fabrics manufactured at Dabiq and Damascus."[17]

More impressive still are these treasures of the Byzantine court of the ninth century:

"He [the Emperor Theophilus, who reigned from 829 to 842] loved pomp and magnificence: to enhance the splendour of his palace receptions, he ordered from his craftsmen marvels of goldsmiths' work and mechanical ingenuity: the Pentapyrgian, a famous golden cupboard where the crown jewels were displayed; the golden organs that played on the days when the Emperor held solemn audience; the golden plane-tree that rose beside the imperial throne and on which mechanical birds fluttered and sang; the golden lions lying at the prince's feet, which at certain moments got up, waved their tails and roared; and the golden griffins of mysterious aspect which seemed, as in the palaces of Asian kings, to watch over the Emperor's serenity."[18]

The Empire of China and that of the Moguls in India knew luxurious displays of the same order. One has only to think of the walls of the Taj Mahal, covered with precious stones.

After all, though, all these treasures constitute hoarded use values, unconsumable and unused for the development of the productive forces. The concentration of a considerable share of social wealth for the mere purpose of luxury and waste is thus an important cause of the stagnation and decadence of societies of this sort.

The transformation of agricultural surplus product from rent in kind into money rent does not necessarily change this situation. It gives the ruling classes easier access to the market and possession of wealth even more excessive than before. But the money they receive continues to be wasted on *unproductive consumption*. Under these conditions, the development of money economy, and the powerful stimulus which this gives to the needs of the ruling classes, may become the cause of exactions which prove unbearable to the working classes, a factor of impoverishment and ruin for large sections of society. This was the case in Japan, after the development of money economy in the eighteenth century.[19]

But the money that the original possessing classes thus waste in extravagant luxury ends by leaving their pockets and becoming concentrated in those of usurers, traders and manufacturers. It is this concentration of wealth, in the form of money, in the hands of a new bourgeois possessing class that completely changes social evolution. In the hands of the original possessing classes, all accumulated wealth,

including money, was merely wealth in use values, or means of acquiring use values. The object of accumulation was consumption (and hoarding with a view to future consumption). In the hands of the bourgeois classes, *accumulated money becomes capital.*

Money is accumulated in order to bring in surplus value. The surplus value thus accumulated, after deduction of the minimum necessary for subsistence at a level "in accordance with rank", is in its turn capitalised, transformed into capital, in order to bring in further surplus value. Such an accumulation of values which bring in new values is, in the long run, impossible to achieve by mere periodical transfers of wealth from one country to another or from one class to another. Either the accumulation of capital kept within the limits of such a transfer ends by ceasing, because its sources inevitably must dry up, or else it finds a new way forward thanks to the *introduction of capital into production itself*, the ultimate culmination of money economy. This penetration of capital into the sphere of production creates the conditions for an unlimited advance of the productive forces. No longer do the limited consumer needs of the possessing class restrict the productive forces—the need to increase the value which accretes to capital, a need without any limits by its very nature, makes possible on the contrary the abolition of every restriction on their development.

Usurer's capital

The first form in which capital makes its appearance in an economy which is still basically natural, agricultural, producing use-values, is that of usurer's capital. Usurer's capital, the hoard accumulated by an institution or an individual, makes up for the inadequacy of social reserves. Hesiod tells how the peasants of ancient Greece, when in need, borrowed wheat from their better-off neighbours, paying it back later with something more added.[20] Usurer's capital appearing in this way in the form of use values was common, all through the centuries, in essentially agricultural civilisations (Babylon, Egypt, China, India, Japan). In Sumerian the term *mas* (interest) means literally "young animal" (*Tierjunges*) and clearly testifies to the origin of usurer's capital in loans in kind.

What usurer's capital in the form of loans in kind is in relation to the peasants, usurer's capital in the form of advances of money is in relation to the lords and the kings.* During the period of transition from natural to money economy, the essential function of the usurers in France was to advance money to the kings on the security of taxes which were still essentially paid in kind.[22] Wars, famine, other natural

* Cf. the development of usury in China by the Buddhist temples from the fifth century onward: usury in kind at the expense of the peasants, usury in money at the expense of the lords and rich officials.[21]

and social catastrophes, necessitate exceptionally large concentrations of money. The transformation of hoards of objects made of precious metal into usurer's capital, or the use of the merchant's capital of foreign merchants as usurer's capital, provide the chief sources of these concentrations.

When exchange has started to become general and has already created a big money sector in the economy, but when at the same time the bulk of the producers and of the possessing classes still receive their incomes in the form of use values, usurer's capital has its golden age. Lending money at usurious rates becomes the chief source of profit. The ancient Hindu epic the *Mahabharata* mentions usury first among the sources of wealth:

"By usury, agriculture, trade and cattle-breeding may you acquire the power of wealth, O King of Kings."[23]

All the religious and political vetos are powerless to prevent usurer's capital from undermining the social relationships of such an epoch. The indebtedness of the great, the ruin of the small, the expropriation of peasants fallen into debt, or their sale as slaves, the concentration of landed property—these are the traditional calamities that usurer's capital provokes in this phase of social development. Most social disturbances are in this phase revolts against these disintegrating consequences of usurer's capital. In Greece in the fifth and fourth centuries B.C., the slogan generally accepted by the people was: "Redistribution of land and cancellation of debts."[24] Rome in the days of the Republic, Chinese society in the period of decline of each dynasty, Byzantium and India at several epochs of their history present a spectacle in no way different.

In vain did the legislation of Solon in Athens, that of the *decemviri* in Rome or of the Chinese minister Wang An-shi under the Sung dynasty, in vain did the Agrarian Law in Byzantium endeavour to check this encroachment by usurer's capital. They succeeded only in delaying the outcome, without being able to change the general direction of development. Caesar undertook his war of plunder against Gaul in order to rid himself of a burden of debt. The Roman citizens had to pillage the whole Mediterranean world and accumulate enormous wealth before they could free themselves to some extent from the pressure of usurer's capital during the first centuries of the Empire. When this Empire broke up, usurer's capital lasted a long time after the disappearance of large-scale trade[25] and the complaints of writers about usurious rates of interest follow one another monotonously from century to century.*

* One of the reasons why serfdom and feudal economy spread was that the free peasants were unable to pay taxes and fines fixed in money terms, when money had become very rare and extremely dear in relation to agricultural products. In the sixth century an ox was worth 1 to 3 *solidi*, but a *wergeld*

During the Middle Ages, the need to protect a basically natural economy from the disintegrating effects of money economy and usurer's capital led the Catholic Church in Western Europe to condemn vigorously the lending of money at interest. Usurer's capital then appeared in a special form, in order to get round this prohibition: *the purchase of land rent*. In exchange for a lump sum of money, a landowner surrendered to the lender the annual income from his land until he had repaid the capital advanced. The land became in fact the lender's property, recoverable by the owner when he had discharged his debt.[28]*

This was only a special form of the loan upon security which remained, in mediaeval Europe as in India, China and Japan, the most favoured operation of usurer's capital in a natural economy which was slowly breaking up. The purchase of land rent which played an important part in mediaeval European economy shows clearly what is the source of the surplus value obtained by usurer's capital: *the transfer of the incomes of the lords (or of the peasants) to the usurers.* The accumulation of usurer's capital at the expense of the landowners is essentially a transfer of agricultural surplus product into the hands of the usurers.

When money economy becomes widespread, usurer's capital in the strict sense loses its preponderant position and retreats to the dark corners of society, where it survives for centuries at the expense of the small man. It is not that the big man has less need of money—on the contrary, he needs more than ever. But in the meantime trade has become the essential field of action and source of profit for capital. Credit and trade are combined; it is the epoch of the great Italian, Flemish and German merchant financiers which opens with the thirteenth and fourteenth centuries in Western Europe.

Merchant capital

The appearance of a native merchant class in the midst of a basically natural economy presumes a primitive accumulation of money capital. This comes from two main sources: piracy and brigandage, on the one hand; on the other, the appropriation of part of the agricultural surplus product or even of the peasant's necessary product.

It was by raids into foreign territory, operations of brigandage and piracy, that the first merchant navigators assembled their little starting

might amount to as much as 800.[26] The same factor played an important role in the development of feudalism in the Islamic world, in Japan and in Byzantium.[27] Cf. what has been said above about the possibilities of extension of a money economy.

* The same form of usury is to be found among the Ifugao people in the Philippines. Its origins go back to the *antichresis* practised in ancient Greece. It is also found in China in the epoch of the rise of the Buddhist monasteries.[29]

capital. From the earliest times, the origins of maritime trade have been mixed-up with piracy.[30]* Professor Takehoshi observes that the first accumulation of money-capital in Japan (in the fourteenth and fifteenth centuries) was obtained by pirates operating on the coasts of China and Korea:

"While the government of Japan strove to get money by foreign trade, the Japanese pirates employed the more direct method of pillage, and as their booty consisted of gold and silver, copper coins and other treasure, it is impossible to estimate the value of the wealth they brought to Kyushu, Shikoku and the maritime regions of the islands in the central provinces of Japan. Subsequently these plundered treasures injected new life into the whole country."[31]

The accumulation of money capital by the Italian merchants who dominated European economic life from the eleventh to the fifteenth centuries originated directly from the Crusades,[32] an enormous plundering enterprise if ever there was one.

"We know for instance, that in 1101 the Genoese helped the Crusaders to capture and sack Caesarea, a Palestinian seaport. They reserved rich prizes for their officers and remunerated the shipowners with 15 per cent of the loot. They distributed the remainder among 8,000 sailors and soldiers, each receiving 48 *solidi* and two pounds of pepper. Thus each of them was transformed into a petty capitalist."[33]

The mediaeval chronicler Geoffroi de Villehardouin reports the reply given by the Doge of Venice to the Western nobles' request for help in the Fourth Crusade (1202):

"We will supply *vuissiers* (transports for horses) to carry 4,500 horses and 9,000 squires, and ships for 4,500 knights and 20,000 sergeants of foot. And we will agree also to purvey food for these horses and men during nine months. This is what we undertake to do at the least, on condition that you pay us for each horse four marks and for each man two marks . . . The sum total of your payment will thus be 85,000 marks. And we will do more. We will add to the fleet 50 galleys for the love of God [!], if it be agreed that, so long as this contract continues, we shall have the half (and you the other half) of all the conquests that we make by land or sea."

Later, in the fifteenth and sixteenth centuries, the primitive accumulation of money capital by the Portuguese, Spanish, Dutch and English merchants was to have exactly the same source.

In an economy essentially based on petty commodity production,

* N. S. B. Gras, professor of economic history at the Business Administration school attached to Harvard University, feels obliged to refute vigorously[34] this universally recognised truth, which seems to him incompatible with the dignity of capital. Equally unfounded is Schumpeter's assertion[35] that Marx and the Marxists are unable to solve the problem of the primitive accumulation of capital because they have a theory of interest based on exploitation. See also our quotations in the preceding chapter.

retail trade and even wholesale trade in articles of prime necessity is at first strictly limited and regulated.[36] Hardly separated from the crafts, it cannot give rise to a substantial accumulation of merchant capital.[37] Only foreign trade, international trade, allows of such an accumulation. This trade essentially involves *luxury products* intended for the possessing classes. It is through this trade that the merchants appropriate part of the agricultural surplus product on which the landowning classes live. The rise of trade in the Middle Ages in Western Europe, trade in spices and Eastern products, as also trade in Flemish and Italian cloth, is the rise of a typical luxury trade.[38]

The same is true of every society in which merchant capital develops. The customs inspector of the Chinese province of Fukien, Chan Ju-kua, left a picture of China's trade in the twelfth and thirteenth centuries A.D. He lists forty-three articles imported—camphor, incense, myrrh, amber, tortoise-shell, bee's wax, even parrots, all articles of luxury, or spices.[39] Trade in the earliest period of Japanese history was exclusively luxury trade, observes Georges Bonmarchand.[40] Andreades notes that Byzantine exports were almost exclusively luxury products.[41] The trade of the Islamic empire at the height of its greatness was in the same way largely confined to luxury products. Lopez lists as follows the commodities entering into this trade:

" 'Egyptian' emeralds, turquoises from Nishapur, rubies from Yemen, pearls from the Persian Gulf, coral from North-West Africa and Sicily, and marble from Syria and Azerbaijan . . . great quantities of linen from Egypt, Yemen and South-western Persia, of cotton from Merv, Eastern Persia and Spain, of silk from Turkestan and the South Caspian area, of carpets from various regions of Persia, of leather work from Andalusia, of pottery from Khurasan and other provinces, of glass ware from the Syrian coast, and of iron ware from Farghana . . . the scent of Iraqian violet water, of Persian rose water, of Arabian incense and ambergris . . . Maghrebine and Spanish figs, Iraqian and African dates, Turkestanian melons, Tunisian olive oil, Persian, Yemenite and Palestinian sugar, saffron from North-western Persia, sturgeon from the lake of Van, 'edible earth' from Kuhistan, and . . . excellent wine from Iraq and Spain."[42]

Before the coming of the Dutch to Indonesia, the Chinese merchants brought to the great trading centre at Bantam porcelain, silk, damask, velvet, silk thread, gold thread, cloth of gold, spectacles, costly fans, drugs, mercury, etc., and bought spices, musk, ivory, shells and indigo —both sides of this trade consisting of luxury goods.[43]*

* Pre-Columbian America had reached the threshold of the appearance of merchant capital at the moment of the Spanish invasion. The embryonic international trade which had been established between the Incas and the Aztecs concerned metals and luxury articles: "The Incas sell the Aztecs metals and alloys, bronze, *tumbaga* (an alloy of copper and zinc) and especially com-

In order effectively to realise surplus-value at the expense of the noble purchasers, the traders in luxury goods had to ensure for themselves real monopolies at both the buying and the selling end. "Seeking no territorial hegemony, they [the Phoenicians and the Carthaginians] did not wish to penetrate into the interior [of Africa], since they had ensured by long experience that they dominated the peoples of the interior through cleverly arranged trading monopolies."[45] All mediaeval trade in luxuries was a monopoly trade. The prosperity of Byzantium was based for six centuries on its role as exclusive entrepôt for the silks and spices of the East. The loss of this monopoly to Venice sounded the knell of Byzantine power.

When the Italian cities dominated Mediterranean trade, they had in their turn obtained monopolies of trade with Egypt, the new entrepôt for Eastern spices, and with the peoples of the Black Sea coast. The trade in herrings, wheat and timber in the Baltic and the Black Sea was transformed in the same period into trade in which large amounts of capital were employed, thanks to the *de facto* monopolies established by the German merchants in Scandinavia and in the regions recently colonised in the East. But these monopolies were broken owing to the fierce competition between the merchant bourgeoisies of different cities, and also, especially, by Dutch competition. This competition enabled the sellers to raise their prices, and at the same time compelled the merchants to lower their selling prices, thus sharply reducing their profit margin.[46]

The capital accumulated by the big merchants who operate in a society based on petty commodity production thus cannot be continually reinvested in international trade itself. When merchant capital has spread itself sufficiently, it has to endeavour to restrict all farther expansion, on pain of itself destroying the monopolistic roots of its own profits. The merchants of a period like this end by investing a considerable part of their profits in other spheres: landed property, usury, large-scale international credit. Cicero[47] advises the wholesale merchant to invest his profits in landed property. The Talmud—the Jewish commentary on the Old Testament—gives the advice, in the third century A.D., that one-third of one's fortune should be invested in land, and one-third in trade and craft production, with the remaining third kept available as ready money.[48]

Matters were no different in ancient India, in China, in Japan and in Byzantium. In the eleventh and twelfth centuries the Jewish merchants possessed nearly one-third of the land in the County of Barcelona.[49] Gras records that the Norwegian prose treatise *The King's Looking-*

pounds of silver, gold and copper. The Aztecs give the Incas in exchange precious stones such as amethysts, emeralds and obsidians, and to an even greater extent the highly specialised work of their most famous corporations: weapons, dyes, cloth made of embroidered cotton, jewellery . . ."[44]

Glass, compiled about 1260, advises itinerant merchants to invest two-thirds of their high profits in land.[50] In the city of Genoa in the thirteenth century "even the greatest of the merchants . . . backed their commercial investments with very considerable investments in real estate . . . behind the group interested in commerce was another, far larger and infected only slightly or not at all with the adventurous spirit of the capitalist, which based its financial system directly upon the land."[51]

As for the great Italian and German merchants of the thirteenth, fourteenth, fifteenth and sixteenth centuries, the Bonsignori, Scotti, Peruzzi, Bardi, Medici, Fugger, Welser and Hochstätter, the capital they acquired through trade was used for large-scale credit operations, and a substantial part of the profit realised was employed in the purchase of landed property.

The commercial revolution

The expansion of trade from the eleventh century onward had speeded up the development of a money economy in Western Europe. But coins remained very scarce. After the end of the economic decline which accompanied the Hundred Years War, the shortage of coins became oppressive. Everywhere, old mines that had been abandoned since Roman times were reopened, or new mines were sought for.[52] The advance of the Turks and the convulsions which were occurring along the old trade routes in Central Asia stimulated efforts to break the Venetian monopoly of the spice trade. At last an unexpected success was obtained. The discovery of America, the plundering of Mexico and Peru, the circumnavigation of Africa, the establishment of a sea link with India, Indonesia, China and Japan, completely transformed economic life in Western Europe. This was the commercial revolution, the creation of a world commodity market, the most important change in the history of mankind since the metallurgical revolution.

The precious metals, whose cost of production had been stable for a thousand years, were suddenly shrunk in value by important technical revolutions (separation of silver from copper by means of lead; use of draining machinery; digging of improved shafts; use of the stamping-mill, etc.).[53] There ensued an important price revolution, the same quantity of silver being now the equivalent only of a smaller quantity of goods. From the countries where these methods of exploitation were first applied[54]—Bohemia, Saxony and Tyrol in the fifteenth century—this price revolution spread rapidly into Spain in the sixteenth century. The plundering of the treasures of Cuzco and the opening of the silver mines of Potosi reduced still further the cost of production of the precious metals, by the use of slave labour. Subsequently, the increase in prices spread all across Europe, where the new mass of precious metals found its way.

The ruination of the nobility and of the wage-earning classes was thus hastened. For the first time in human history, landed property lost the economic predominance it had possessed from the dawn of civilisation. The fall in real wages—particularly marked by the substitution of cheap potatoes for bread as the basic food of the people—became one of the main sources of the primitive accumulation of industrial capital between the sixteenth and eighteenth centuries.

"In England and France the vast discrepancy between prices and wages, born of the price revolution, deprived labourers of a large part of the incomes they had hitherto enjoyed, and diverted this wealth to the recipients of other distributive shares. As has been shown, rents, as well as wages, lagged behind prices; so landlords gained nothing from labour's loss." Labour's loss thus benefited the capitalist entrepreneurs only. Between 1500 and 1602 in England, the index of wages rose from 95 to 124 whereas the index of prices rose from 95 to 243![55]

As a result of Spain's adverse balance of trade, and of the stagnation and decline of its crafts, the bulk of these treasures of gold and silver which had been plundered or acquired by the enslavement of Indians and Negroes, ended up in the hands of the bourgeoisie of Western Europe, of Germany, France, the Netherlands and Great Britain. The supply of materials of war for the numerous dynastic conflicts which tore Europe apart during these three centuries was another important lever for the accumulation of commercial capital. The brothers Pâris, the biggest French capitalists of the eighteenth century, owed their wealth to war contracts. The appearance of the public debt,* of loans in the form of state bonds negotiable on the stock exchanges—first, those of Lyons and Antwerp, then that of Amsterdam, which remained predominant over a long period—constituted another lever of this primitive accumulation of capital, provided by the pillage of America and India.†

Like the primitive accumulation of merchant capital, the primitive accumulation of commercial capital took place first and foremost by way of brigandage and piracy. Scott[57] notes that about 1550 there was

* The British national debt rose from £16 million in 1701 to £146 million in 1760 and £580 million in 1801. The public debt of the Netherlands increased from 153 million florins in 1650 to 1,272 million in 1810.

† "The fairs which played so big a part when large-scale trade was still merely periodic in character, gradually lose their old importance, in proportion as static, urban trade develops. From the sixteenth century onward we see the establishment of the world stock exchanges . . . which will more and more completely replace them. In the fairs, financial transactions occurred only on the occasion and as a result of commercial transactions. On the stock exchanges commodities are no longer dealt with in kind, business being carried on only in the values which represent them."[56]

a marked shortage of capital in England. Within a few years, the pirate expeditions against the Spanish fleet, all of which were organised in the form of joint stock companies, changed the situation. Drake's first pirate undertaking, in the years 1577–1580, was launched with a capital of £5,000, to which Queen Elizabeth contributed. It brought in about £600,000 profit, half of which went to the Queen. Beard estimates that the pirates introduced some £12 million into England during the reign of Elizabeth. The frightful barbarism of the Spanish *conquistadores* in the Americas is notorious. In a period of fifty years they exterminated 15 million Indians, if we are to believe Bartholomé de las Casas, or 12 million according to more "conservative" critics. Densely populated regions like Haiti, Cuba, Nicaragua, the coast of Venezuela, were completely depopulated.[58] The primitive accumulation of Portuguese commercial capital in India was marked by "civilising" activities of the same sort:

"Vasco da Gama's second voyage (1502–1503), at the head of a veritable war fleet of 21 vessels, resulted in the replacement of the Egyptian-Venetian monopoly (of the spice trade) by a new monopoly. This was not established without bloody incidents. It was a kind of crusade [!] by merchants of pepper, cloves and cinnamon. It was punctuated by horrible atrocities; everything seemed permissible against the hated Moslems whom the Portuguese was surprised to meet again at the other end of the world, after having driven them out of the Algarve and fought them in Barbary. Arson and massacre, destruction of rich cities, ships burnt with their crews in them, prisoners slaughtered and their hands, noses and ears sent in mockery to the 'barbarian' kings, these were the exploits of the Knight of Christ; he left alive, after mutilating him in this way, only one Brahmin, who was given the task of conveying these horrid trophies to the local rulers."[59]

Hauser mentions in this passage that the new commercial expansion remained based on monopoly. It is therefore not to be wondered at that the Dutch merchants, whose profits depended on their monopoly of spices obtained through conquests in the Indonesian archipelago, went over to mass destruction of cinnamon trees in the small Islands of the Moluccas as soon as prices began to fall in Europe. The "Hongi voyages" to destroy these trees and massacre the population which for centuries had drawn their livelihood from growing them, set a sinister mark on the history of Dutch colonisation, which had, indeed, began in the same style, Admiral J. P. Coen not shrinking from the extermination of all the male inhabitants of the Banda Islands.[60]

The source of the surplus value obtained by pre-capitalist commercial capital is thus identical with the source of surplus value accumulated by usurer's capital and merchant capital. A remarkable illustra-

tion of this is to be found in the following table of the purchase prices and selling prices of the French East India Company in 1691:

	Purchase price £	*Selling price* £
White cotton cloth and muslin	327,000	1,267,000
Silks	32,000	97,000
Pepper (100,000 lb.)	27,000	101,000
Raw silk	58,000	111,000
Saltpetre	3,000	45,000
Cotton thread	9,000	28,000
Total, including some smaller items	487,000	1,700,000

Or a rate of profit of nearly 250 per cent, and this in "ordinary" trade![61]

One of the pioneers of Dutch large-scale trade, Willem Wisselinx, wrote plainly enough in a pamphlet published at the beginning of the seventeenth century:

"The trade on the Guinea coast was, indeed, profitable to the country in two ways: first, commodities of great value were obtained there from people who as yet were ignorant of their true value [!]; secondly, these commodities were obtained in exchange for European goods of much smaller value."[62]

While the commercial revolution brought about a general increase in the price of goods, it nevertheless also caused a relative reduction in the prices of the luxury products of the East. Alongside a larger supply, an extension of the market and of needs thus occurred. What had originally been the privilege of a few noble families now entered into the ordinary consumption of all the possessing classes (sugar, tea, spices, tobacco, etc.). Trade in colonial products increased substantially and was soon monopolised by a few joint-stock companies: the *Oost-Indische Companie* in the Netherlands, the *East India Company* and the *Hudson Bay Company* in Great Britain, the *Compagnie des Indes Orientales* in France.

As in the dark centuries of the Middle Ages and at the dawn of trade in Antiquity, these companies combined the spice trade with the slave trade. Enormous profits were realised in this way. Between 1636 and 1645 the Dutch West India Company sold 23,000 Negroes for 6·7 million florins in all, or about 300 florins a head, whereas the goods given in exchange for each slave were worth no more than 50 florins. Between 1728 and 1760 ships sailing from Le Havre transported to the Antilles 203,000 slaves bought in Senegal, on the Gold Coast, at Loango, etc. The sale of these slaves brought in 203 million *livres*.[63] From 1783 to 1793 the slavers of Liverpool sold 300,000 slaves for

£15 million, a substantial slice of which went into the foundation of industrial enterprises.[64]

All the well-to-do classes of the population sought to share in the rain of gold from the plundering of the colonies. Kings, dukes, princes, judges and notaries tried to invest their money with the big traders so as to get regular interest, or bought shares or holdings in the colonial companies. Hochstätter, the Nuremburg banker, Fugger's great rival, must have received such investments to the value of more than £100 millon in the sixteenth century.[65] The New Royal African Company, which was engaged down to 1698 in the slave traffic, had partners so distinguished as the Duke of York and the Earl of Shaftesbury, as well as the latter's illustrious friend, the philosopher John Locke.[66]

The rise in prices impoverished those people who were living on fixed incomes. The public debt,* speculation and wholesale trade concentrated capital in the hands of the bourgeoisie. Basically, international trade remained luxury trade.[68] However, government orders and the growing needs of the well-to-do classes stimulated the production of non-agricultural commodities. Alongside trade in colonial products and precious metals, trade in craft and manufactured products became more extensive than in the Middle Ages. The English clothing industry, the Lyons silk industry, the metallurgical industry of Solingen, the textile industries of Leyden, Brittany and Westphalia, were already working for international markets, including those of the overseas colonies, and going beyond the stage of luxury manufacture. This extension of the market hastened the accumulation of capital by big merchants and created one of the conditions for the flowering of capitalist industry.

Domestic industry

In spite of the extension of large-scale international trade from the eleventh century onwards in Western Europe, the mode of production in the towns remained basically petty commodity production. Master craftsmen, working with a few journeymen, produced a quantity of certain products in a certain labour-time, and sold them directly to the public at prices fixed in advance. The census of a district of the city of Ypres, in Flanders, in 1431, revealed 704 people working at 161 different trades. In the enterprises of 155 different occupations there were only 17 hired journeymen. Altogether, more than half

* "We see appearing in France from the seventeenth century onward the tax-farmers who, in exchange for advances to the royal treasury, are given the right to collect a given tax . . . The profits they realise at the expense of the treasury are enormous . . . If Boulainvilliers is to be believed, between 1689 and 1708, out of an amount collected of one milliard *livres*, 266 millions remained in their hands."[67]

of the persons covered by the census were independent entrepreneurs.[69] The differences of social condition between master craftsmen and journeyman were limited; every journeyman, at the termination of his apprenticeship, had the chance to rise to the dignity of master.

This mode of production encountered, however, a number of contradictions. In the first place, contradictions inherent in the system itself; the progressive increase in the town population and in the number of craftsmen was not balanced by an extension of the market. It led to increasing competition between one town and another, to an accentuation of the protectionist tendencies of each town and to the development of protectionist tendencies in the craft corporations themselves, which endeavoured to close their doors against new master-craftsmen. Apprentices had harder and harder conditions imposed on them as they strove to rise to the status of master. In fact, this rise soon became impossible. According to Hauser, this was the situation in France from 1580 onward.[70] Kulischer quotes numerous openly monopolistic declarations by craft corporations, from the fourteenth and fifteenth centuries.[71]

On the other hand, the craftsmen of Flanders and Italy who had begun by the twelfth century to work for markets wider than the mere urban market, ended by losing control of the products of their labour.[72] In order to carry his own products to a distant fair, a weaver or a brazier had to stop producing and could not start again until he returned. Inevitably, some of them, notably the richer ones who could provide themselves with a substitute at home, soon specialised in trade. At first they conveyed to the market their neighbours' products along with their own, simply as a favour. They ended by buying up directly the products of a large number of master craftsmen and undertaking the whole charge of selling them in distant parts. This system does not necessarily imply subordination of the craftsman to the merchant. But it promotes it, especially in the textile branch, in which numerous craft-guilds carry out one after the other a series of jobs on the same product, and thus find themselves at the end confronted by a single purchaser.[73] It was the same with the making of leather saddles in London, where the "saddlers" subordinated the secondary trades from the fourteenth and fifteenth centuries.[74]

This subordination was achieved by the thirteenth century in the Flemish clothing industry and in the Italian woollen and silk industries. The cloth merchant was still dealing with master-craftsmen, owners of their means of production. Wage-earners, in the strict sense, were an exception, elsewhere than in the Florentine woollen industry, where there were 20,000 day-workers by the middle of the fourteenth century.[75] But the master craftsmen had to buy their raw material from the cloth merchant, and were likewise obliged to sell him their finished products. "Having been able to sell at the highest prices, (the

clothier) will insist on buying at the lowest prices."[76]* In his study of a great clothier of Douai at the end of the thirteenth century, Sire Jehan Boinebroke, Espinas notes that the clothiers were already tending to make the craftsmen lodge in houses belonging to themselves, and even beginning to buy means of production. The inevitable indebtedness of the craftsmen to the merchants provided a natural path to this subordination.†

The craftsmen did not accept without resistance a subordination like this, whether partial or complete. In the thirteenth and fourteenth centuries the Flemish and Italian communes were torn by violent class struggles which often ended with the victory of the craftsmen. But this could only intensify the decadence of urban petty commodity production, which had come to a blind alley. It often hastened this decline by protectionist measures. In order to escape from the strict regulations of the town guilds and the high wages of the craftsmen, the merchants began to put work out to craftsmen working at home in the country, who received raw material and means of production from the merchant entrepreneurs, and worked, no longer only *de facto* but also *de jure*, for a mere wage.

From the fifteenth century onward, this domestic industry spread to the countryside in Belgium, in Italy, in France and in Great Britain. The big merchants of Antwerp financed the "new draperies" of French Flanders and the carpet-making of Oudenarde and Brussels.[79] But progress remained slow. In the sixteenth century every English clothier still had to undergo a seven years' apprenticeship.[80] In the seventeenth century, in the Lyons silk industry, the merchant masters had no trades of their own, though they possessed the capital, supplied silk and patterns to the master-workers, and collected the finished product from them.[81]

In the mining industry, however, where large-scale costs of installation were inescapable, the commercial bourgeoisie succeeded more quickly in taking possession of the means of production.[82] At Liège, the chief coal-producing centre of the Continent, the independent associations of miners had almost completely disappeared by 1520, and been replaced by small capitalist enterprise, mostly belonging to merchants of the town. Most of the mining enterprises were transformed into joint-stock companies, the shares in which were bought by members of the well-to-do classes. The most important were taken over as

* The law, wherever it favoured the merchants, expressly granted them a selling monopoly. It was exceptional that in Venice a law of 1442 authorised weavers who had no apprentices or journeymen—and only these—to sell their products on the market.[77]

† It was inevitable only in so far as these clothiers, splendid embodiments of the capitalist spirit of money-making, squeezed and robbed the wretched producers in every imaginable way. Espinas paints a striking picture of this behaviour on the part of Jehan Boinebroke.[78]

concessions by rich commercial or banking families like the Fuggers.

The *Saigerhütten*, works where silver was separated from copper, in Saxony, Thuringia, Tyrol and Carinthia, were, through the cost of the installations and the concentration of wage-earning labour, the most important industrial enterprises of the sixteenth century. With them we have already passed from the realm of domestic industry to that of modern manufacture.[83] In the following century the richest Dutch merchants acquired immense fortunes by securing the monopoly of exploitation of the Emperor's mercury mines (the Deutz family) and the iron and copper mines in Sweden, combined with the manufacture of arms and munitions (the De Geer and Tripp families).[84]

It is interesting to note that this separation of the producers from their means of production by the merchant middlemen took place in a very similar way in other societies besides those of Western Europe. Bruno Lasker, basing himself on original fieldwork by Pieter H. W. Sitsen, describes the system operating in the countryside of Java:

"In the Central lands of East Java, the quasi-independent home workers always had credit accounts in the finishing business and could draw against it in an emergency . . . The *Bakul*, or middleman . . . was the real financier and manager of the cottage industry . . . Through their debts to him, which he encourages in every possible way . . . he keeps the nominally independent producers so dependent on him that he can take the better part of their earnings. For example, in the furniture industry of the region, more than half of the gross return went to the *bakuls* when Dr. Sitsen made his study in 1936."[85]

Raymond Firth discovered an identical system in Malaya, where "in Trengganu the system of borrowing cash or equipment has often crystallised into a financial relationship between fishermen and fish-buyers, especially those who cure for export."[86]

S. F. Nadel found a similar system in the domestic industry making glass beads at Bida, in Nigeria. In India the *mahajans* advance the raw material and the other products needed for domestic industry. The textile industry of Soochow, in China, seems to have been organised in the same way in the sixteenth and seventeenth centuries, according to the chronicles of the Ming dynasty.[87]

Domestic industry is the logical culmination of the subordination of petty commodity production to money capital, in a money economy in which production for distant markets has destroyed all possibility of giving a stable foundation to the existence of the small producer.

Manufacturing capital

Domestic industry separates the small commodity producer first from control of his product and then from his means of production. But production increases only slowly, parallel to the slow extension

of the market. The commercial bourgeoisie, like the merchant bourgeoisie before it, invests only a part of its capital and profits in domestic industry. The greater part is devoted to trade itself, to speculation, to the acquisition of landed property. The Fuggers, who began as mere weavers in Augsburg, made their fortune in the international trade in spices and fabrics, in which they continued after they had acquired the concessions for Central Europe's silver mines and had built the most important manufactories of their day. They ended by dedicating themselves essentially to credit operations for the house of Habsburg, which brought them to bankruptcy.

By the amount of labour it employed, domestic industry remained the chief form of non-agricultural production between the sixteenth and eighteenth centuries in Western Europe. Alongside it developed another system of production which constituted a sort of bridge to the modern big factory: the system of *manufacture*.

Manufacture means the assembling under one roof of workers who work with means of production which are provided for them and with raw material which is advanced to them. But instead of their being paid for the total value of the finished product, after deduction of the value of the raw material advanced and the cost of hiring the tools of labour, as with domestic industry, the fiction of the selling of the finished product to the entrepreneur is given up. The worker receives no more than what he was already earning *de facto* under the system of domestic industry: a mere wage.

This evolution can be followed step by step in the history of the cloth industry of Leyden, which has been analysed in masterly fashion by Posthumus. This industry was first organised on a craft basis. From the end of the sixteenth century it spread to the countryside and the merchants got the upper hand of the clothiers. The latter began to lose ownership, first of the raw material and the finished product, then of the means of production. Towards 1640 a fresh set of middlemen, the *reeders*, inserted themselves between the merchants and the clothiers. The stage of manufacture was reached, and around 1652 there is even talk of "manufacturers"! [88]

The new system presented two advantages for the suppliers of capital. On the one hand, they could do away with the overhead charges arising from the need to maintain a large number of middlemen to collect the finished products, distribute the raw material, etc. On the other, they could put a stop to the considerable embezzlement of raw material which inevitably occurred in domestic industry, as a means whereby the workers made up for inadequate wages. In manufactories the concentration of labour-power and its subjection to direct and continuous supervision by capital has already reached an advanced stage.

Manufacture also constitutes a considerable advance from the stand-

point of the productivity of labour. In petty commodity production there is only a *social* division of labour between different crafts; *within* each craft, that is, during the process of production, division of labour hardly exists. Even when each craft is not completing a finished product, intended for direct consumption, as in the clothing or woollen industries, each craft does carry out one complete process of production: weaving, fulling, dyeing, etc.

Thanks to manufacture it becomes possible to *subdivide* each craft and each production process into an infinite number of labour operations, mechanised and simplified to the uttermost. This makes it possible at one and the same time to increase output, to increase the number of finished products completed in the same period of time, and to reduce the cost of production by substituting an unskilled labour-force of women, children, sick or old persons and even lunatics. This is the fact which appears as an entirely new social phenomenon, especially as regards the manufacture of textiles: the labour-force is largely composed of these wretched people. It is above all the low cost of such labour-power that makes it profitable to concentrate wage-earners in such numbers under one roof. One can compare the situation to some extent to the mines and large-scale state manufacturers in the ancient world, in China, India and elsewhere, in which slave or semi-slave labour predominates.

The utmost brutality, together with an amazing hypocrisy, were normally employed to compel these unfortunates to furnish a cheap supply of labour to young manufacturing capital.* In 1721 it was decided to set up a cloth manufactory in Graz "because hundreds of people are suffering from hunger and are idle". In order to provide the necessary labour-force, a suitable number of persons had to be "caught and locked up", from among the beggars who crowded the streets of the town. In Amsterdam, in 1695, on the proposal of the sheriffs, the municipal council considered "whether it was appropriate to seek a site for (the establishment) of a spinning mill where young girls could be employed so as to support themselves, along with other persons who were leading lives of idleness and beggary." As some merchants who wanted to set up woollen mills were offering favourable terms and as these worthy councillors considered that what was involved was a "very good and Christian work" [!], they authorised the Mayor to see to the putting of the scheme into effect.[90] Sombart[91] quotes numerous examples of the State's *compelling* the population to carry out veritable forced labour in manufactories,

* Already in the *arte di lana*, the Florentine woollen industry of the fourteenth century, where the wage-earner was tied to his employer by *debts*, a whole set of laws was introduced in order to compel him to do overtime. He was in particular forbidden by a law of 1371 to repay his debt in *money*; he had to do this in the form of *work*.[89]

notably in Spain, France, Holland, Germany, Switzerland, Austria, and, of course, England. In the countries where serfdom still existed, serfs were compelled to work in the manufactories, notably in Russia, in the copper manufactory in Tula.

The development of manufacture did not yet do away with manual labour as the preponderant means of production in industry: the greater part of the expenditure of manufacturing capital still went on wages. Nevertheless, manufacture developed most rapidly in the sectors in which costly apparatus had to be installed to an increasing extent. In the eighteenth century, in Rheims and Louviers, thousands of workers were already massed together in manufactories which had cost hundreds of thousands of *livres* to build.[92]

Leyden, which was the leading textile centre of Europe in the middle of the seventeenth century, saw its manufactories develop owing to the large-scale use of fulling-mills. The use of these mills was profitable, however, only on the basis of the employment of children or women as workers. For this reason, the entrepreneurs organised expeditions to places as far away as the Liège region to recruit labour.[93]

Creation of the modern proletariat

Alongside this broadening of the field of action of capital, which was steadily entering the sphere of production, from the sixteenth century onward a new social class came into existence, which had been present in the Middle Ages only in the form of a few uprooted "hirelings" who wandered from town to town. This class originated from the cutting down of the retinues of the feudal lords, itself a result of the impoverishment of the latter by the price revolution. It originated also from the decay of the urban crafts since the merchant entrepreneurs had started to put out their orders to men working in the countryside. Its development was speeded up by deep-seated changes in the field where the great majority of the producers were still concentrated: in agriculture.

In the mediaeval village the peasants' land was broken up into numerous plots. In order to work on these plots, the peasants had to have free access to the land separating them. This free access was linked with the right to gleaning and gathering straw, to free common pasture, the reservation of land for the benefit of new households, and compulsory rotation of crops, all of which were essential to the stability of a village economy based on the three-field system and marked with the imprint of the primitive village community.[94] At the same time, the common lands offered free amenities for pasturing cattle and collecting wood, both for fires and for building, etc.

From the fifteenth century onward, despite numerous governmental decrees and laws directed against this development, the landlords in England began to divide up the common lands and to rearrange the

farmers' plots of land, so as to constitute farms for a single tenant. This movement was particularly encouraged by the rapid rise in the price of wool from the middle of the fifteenth century, which made sheep raising more profitable to the lords than cultivation of the soil.[95] But the practice of enclosure, of putting fences around fields, remained very sporadic until the eighteenth century.

It was then precipitated by a revolution in the agricultural mode of production itself: the abolition of fallow, transition from the three-field system to periodical cultivation of lucerne, turnips and fodder plants which restore the soil's productivity. This was a system of scientific agriculture, orginating in Flanders and Lombardy, which after several tentative attempts, now began to become general in England.[96] The agricultural surplus product increased markedly. The landlords, anxious to take this surplus for themselves, changed the system of tenancy, going over from long leases, which ensured a peasant family's tenancy for a century, to tenancies at will, or short leases, which implied a change of tenancy every nine years at most.[97]

From this resulted a large increase in ground rent, which hastened the expropriation of poor peasants and accompanied the enclosure movement, which was favoured also by the fact that with the ending of the three-field system the scattering of plots became burdensome to the cultivators. By about 1780 this movement had culminated in England in the quasi-liquidation of the class of independent peasants, who were replaced by big capitalist farmers working with wage labour. In France a similar movement for the break-up of the common lands occurred in the seventeenth and eighteenth centuries, but to a smaller extent,[98] until the French Revolution gave it a great impetus. Development followed similar lines to the French in Western Germany and Belgium.

The economic changes which, between the sixteenth and eighteenth centuries, created a mass of producers separated from their means of production in the towns, were thus accompanied by changes which in practice deprived part of the peasantry of land as a means of producing their means of life. In this way the *modern proletariat* appeared. This class was thus described, from the sixteenth century onward, by the entrepreneurs of Leyden:

"Poor and needy persons, many of whom have the charge and burden of wives and many children to support, and who have nothing but what they can get by the work of their hands."[99]

The ancestors of this proletariat were described already in 1247 as "those who earned money by the strength of their arms."[100] And in our own day, when the process of formation of the proletariat is being repeated among the backward peoples, they say in Malaya of a fisherman who has no net of his own (no means of production): "he has not a single thing; he only helps other people."[101] In other words,

the separation of the producers from their means of production creates a class of proletarians who cannot live otherwise than by hiring out their strength, that is, by selling their labour-power, to the owners of capital, which enables the latter to secure for themselves the surplus-value produced by these producers.*

The Industrial Revolution

For capital to be able to penetrate into the sphere of industrial production, industry must be suddenly confronted with a market which is no longer stable but has expanded to the point where it seems ready to absorb a continuously increasing volume of products. The introduction of machinery into industry and transport, and the lowering of the cost of the products of large-scale factories resulting from this, have created such a market and signalised the definitive victory of the *capitalist mode of production.*

For thousands of years, the only two sources of power available for work were human power and the power of domestic animals. The ancient world was able to build the first machine which utilised another source of power: the water-mill. In the Roman mines, Archimedes' screw and Ctesibius's water-pump were used for draining purposes.[108] They were not widely employed, however, in agriculture. The Middle Ages inherited these machines, put them into general use from the tenth century onward, which resulted in a significant increase in the productivity of labour, and then received the windmill from the East.†

From the fifteenth century onward, a long series of small inventions and technical improvements increasingly transformed these machines, while still using water as the main source of power. Mills were built to make paper, to operate forge-hammers, to make silk, to pump out mines, to full cloth, to saw wood, etc.[104] Sombart lists about twenty different kinds of mills dating from that period.[105]

However, these technical improvements were only applied sporadically so long as economic and social conditions did not favour a large-scale flow of capital into industrial production. As mentioned above, it was above all in mining and metallurgy that progress was substantial, at the dawn of modern times. It was in the mines that the first kinds of railway were developed, to facilitate the carriage of coal.[106] The fifteenth century saw the building of the first blast furnace.[107] But the

* "The current analysis of the situation of the wage-earner points to its essential feature as being that labour is separated from and deprived of ownership of the means of production, and bases on this feature the difference between the wage-earner's situation and that of others."[102]

† In China, windmills were in use on a large scale in agriculture from the sixth century. As in Western Europe, they were the monopoly of rich landowners and of temples, and thus reinforced the exploitation of the peasants. In Europe windmills were the basis of the *banalités*, the additional burdens placed on the peasants which we also find in China.

development of these blast furnaces was hindered so long as the fuel they used was wood. In 1777 the use of the steam engine in the coal industry transformed the production process. It made possible a rapid increase in coal production and a reduction in prices which opened the way to the use of coke as fuel in blast furnaces. A few years later, about 1785, the making of iron by the puddling process again transformed the production process. The production of iron in England increased from 12,000 to 17,000 tons a year about 1750 to 68,000 in 1788, 244,000 tons in 1806 and 455,000 tons in 1823.[108]

The use of water power in the fulling mill and other mills, but still more and especially the invention of the mechanical loom, transformed the textile industry. At the same time, the expansion of Liverpool's maritime trade opened up to Lancashire overseas markets which seemed limitless. With the aid of new machines, the textile manufacturers produced their cottons at prices much lower than those of the craftsman and the domestic worker, and set out to conquer this immense market. Capital broke down first of all the internal customs barriers inherited from the feudal past: in 1776 by the formation of the United States, in 1795 in France, in 1800 in the United Kingdom, in 1816 in Prussia, in 1824 in Sweden and Norway, in 1834 by the creation of the Zollverein in Germany, in 1835 in Switzerland, in the 1850s in Russia and Austria-Hungary. Next, the world market was attacked. British exports of cotton grew from £5,915 in 1679 and £45,000 in 1751, to £200,354 in 1764, £19 million in 1830, £30 million in 1850, and £73 million in 1871.[109]

The iron and coal industries found enormous new outlets in the making and fuelling of steam engines. From 1825 onward, the building of railways made general this triumphal march of machine production and of the capitalist mode of production. By closely linking town and country they facilitated the penetration of commodities produced at low prices by big factories into the remotest corners of all countries. At the same time the building of railway lines constituted, for over half a century, the chief market for the products of heavy industry (coal, steel, metal products, etc.), first in Great Britain, then on the Continent, later in America and throughout the world.

Special features of capitalist development in Western Europe

Under petty commodity production the producer, master of his means of production and his products, can live only by selling these products in order to acquire the means of life. Under capitalist production, the producer separated from his means of production is no longer master of the products of his labour and can live only by selling, that is, by making a commodity of, his own labour-power, in exchange for a wage which enables him to acquire these means of life. The transition from petty commodity production to capitalist production properly

so called is thus marked by two parallel phenomena: on the one hand, the *transformation of labour-power into a commodity*, and on the other, the *transformation of the means of production into capital.** These two concomitant phenomena had never occurred on a large scale before they appeared, from the sixteenth century onward, and above all from the eighteenth century onward, in Western Europe, mainly in Great Britain.

Capital itself, in its primitive forms of usurer's capital and merchant capital, was, however, not at all a special feature of Western civilisation. Many civilisations which saw an advanced stage of petty commodity production saw with it a substantial flowering of capital: the ancient world, Byzantine society, the Mogul empire in India, the Islamic empire, China and Japan, to mention only the most important. The quantitative expansion of capital in these societies was in no way inferior to what occurred in mediaeval Europe.

In the middle of the fourteenth century King Edward III of England received 1,365,000 florins from the Florentine companies of the Bardi and the Peruzzi.[111] These were the richest bourgeois families of the West before the Fuggers. About the same period, a group of Karimi (Yemenite) merchants, who monopolised the spice trade with India in the Egypt of the Mamelukes, advanced 700,000 silver *dirhems* to some notables of Damascus, and then 400,000 gold *dinars* to the King of Yemen (coins which contained more pure metal than the European coins of the time).[112] In the ninth and tenth centuries, at the zenith of the Islamic empire, we find a number of merchants of Basra who have an *annual income* of over a million *dirhems*. A Baghdad jeweller, Ibn-al-Jassas, was still a rich man after 16,000 gold *dinars* of his had been confiscated.[113] In 144 B.C. the imperial prince Hsio, of Liang, died in China leaving 400,000 *catties* of gold (one *cattie* is about 600 grammes).[114] Why did this accumulation of usurer's and merchant capital not give birth to industrial capital in these various civilisations?

It was not that the forms of organisation lying between crafts in the strict sense and large-scale factories—the *Verlagssystem* of merchants putting out work to craftsmen, domestic industry, and manufacture—were unknown to these pre-capitalist civilisations. In Byzantium, real textile manufactories appeared, from the time of the Emperor Justinian, based, to be sure, on crafts and with a labour-force which, though concentrated in large establishments, remained in possession of its means of production.[115] But, already about the tenth century,

* This does not seem to be understood by Professor Sol Tax, who calls his work on the Guatemalan community of Panajachel *Penny Capitalism*. He examines the reasons for this definition, and discovers them above all in the "mental habit" of the natives of Panajachel to seek "maximum returns". In reality we have here a typical society where petty commodity production prevails, where neither the land nor labour-power have in practice become commodities.[110]

"the merchants of raw silk and the clothiers had a strong predominance over the other guilds, and some members of these two guilds were trying to rise above their colleagues and to become capitalist entrepreneurs. The guild of the dealers in raw silk . . . had brought under their control not only the impoverished silk spinners (*Katartarioi*) . . . but the whole guild of the *katartarioi*. As a matter of fact, a silk spinner could not sell the processed silk directly to the clothiers; he had to hand it over to a dealer in raw silk. Nor could he buy raw silk from the importers without the permission of the dealers . . . [and] he could buy only the quantity he could process in his own workshop . . . It is true that theoretically the dealers were forbidden to take over directly the spinning, or to do anything but buying and selling the raw material. But this prohibition . . . was practically nullified by the fact that a merchant of raw silk could hire workers, paying them in advance. It is hardly believable that these workers were employed just to assist him in buying and selling! "[116]

A no less impressive development of domestic industry and manufacture occurred in the Islamic empire. Over 1,000 workers are said to have been concentrated in the mercury mines of Moslem Spain. In Tinnis, the famous cloth-weaving town, domestic industry was in full operation from A.D. 815. The cloth merchants gave work to men and women for wages of half a dirhem a day.[117] China similarly had great mining and metal-working manufactories which employed slave labour, several centuries before our era. Rich entrepreneurs arose, especially in iron and copper working and in the exploitation of mercury and cinnabar.[118] Later, manufactories of porcelain and domestic textile work saw a great expansion, especially from the time of the Ming dynasty onward.[119] It was the same in India for a thousand years. Yet, nevertheless, the coexistence of these types of modern enterprise with a big accumulation of money capital did not result in the development of industrial capitalism.

Petty commodity production is already the production of commodities. But it is usually a production of commodities in the midst of production of use values. So long as the overwhelming majority of the population participates little or not at all in this commodity production, the latter inevitably remains restricted. Large-scale trade basically remains luxury trade. Faced with the narrow limits of this market, capital finds outlets more profitable than investment in production. This is what explains the fact that the manufactories and domestic industries of Byzantium, the Islamic world, China and India embraced almost exclusively luxury branches, unless they worked for State orders.

It was the penetration of money economy into the peasant economy, as a result of the changing of the agricultural surplus product from rent in kind, or labour services, to money rent that made possible a

considerable expansion of commodity production in Western Europe, and so created the conditions for the flowering of industrial capitalism. Nowhere outside Western Europe did the agricultural surplus assume lastingly the form of money rent. Taxation in kind predominated in the Roman Empire and in Byzantium.[120] In the Islamic empire the land tax was paid partly in kind and partly in money, under the Abbasids, but soon afterwards rent in kind became preponderant again, and remained so in the Turkish period.[121] In India, land rent was generally paid in kind, except during a brief period of prosperity under the Moguls in the seventeenth century. In China, rent-tax in money, briefly general under the Mings towards the end of the fifteenth century, resumed the form of rent-tax in kind after the fall of this dynasty, to reappear definitely as tax-rent in money only in the seventeenth and eighteenth centuries in South China.[122]

Machine production, which alone enables the big factory to overcome the competition of domestic industry and the crafts, is the product of the application of natural science to production that, in turn, demands a ceaseless striving to economise human labour. The predominance of slave labour and the presence of an enormous mass of unproductive poor in the Roman Empire prevented any endeavour in this direction.* The significant comment of the Emperor Vespasian will be remembered, when he refused to allow the use of a mechanical crane: "I must feed my poor."[123]

As for the Islamic world, India, China and Japan, these were essentially agricultural civilisations, in which irrigation made possible the development of an extremely intensive agriculture which in turn led to a considerable growth of population. The competition of very cheap labour was to prevent for thousands of years any attempt to introduce machinery into the crafts. At the same time, the productive use of hydraulic power for non-agricultural purposes, the basis of the slow advance of machine production in Europe from the thirteenth to the eighteenth centuries, was much restricted in these agricultural civilisations because it came into conflict with the requirements of irrigation of the soil.†

* To this must be added the widespread contempt for manual labour, engendered by slavery and formulated in striking fashion by Xenophon in his *Economics*: "The arts which men call vulgar are generally held in low esteem and disdained by the state, and this for good reason. They utterly spoil the bodies both of the workers and their supervisors . . . And when men's bodies are exhausted, their souls become sick. *Further, these arts imply a total lack of leisure, and prevent men from leading a social and civic life.*"

This last observation is most pertinent.

† These installations (water mills and automatic milling), which were a source of very big incomes for great lay families and for important monasteries, became numerous in the T'ang epoch [*i.e. four or five centuries sooner than in Europe!*], at the time when large landed property was also developing. The imperial administration had to fight against this new abuse, because the

The accumulation of money capital, usurer's capital, merchant capital and commercial capital took place in Western Europe between the tenth and eighteenth centuries, in the hands of a bourgeois class which progressively freed itself from the control of the feudal classes and the state, and ended by subjecting the state to itself and using it to accelerate the accumulation of capital for its own advantage. The formation of the bourgeoisie as a class, with a clear consciousness of its interests, took place in the free communes of the Middle Ages, where the bourgeoisie underwent its apprenticeship to political struggle. The establishment of centralised modern states from the fifteenth century onward did not result from a crushing of the urban bourgeoisie but from a new ascent of this class, which broke through the narrow confines of commune politics to confront, as the Third Estate, the old ruling classes on the national level (Russia, Spain, and to some extent the Austria of the Habsburgs, were in this respect interesting exceptions, something that had significant consequences for the later history of capitalism in these countries).

In the other pre-capitalist civilisations, however, capital remained unchangingly under the arbitrary power of the despotic and all-powerful state. In Rome it was the landed nobility that, thanks to the booty obtained in its plundering wars, ended by entirely subjecting the free capital of the ancient world.[125] In ancient India, the state monopolies made the king himself the chief banker, manufacturer and wholesale trader. Rostovtsev notes that the imperial treasury was the chief usurer in Rome.[126] The predominance of state manufactories in Byzantium, where the imperial treasure concentrated in its coffers the greater part of the available capital, is as well known as the pitiless taxation that crushed craft and industrial production in the Islamic world.[127] In China, under each successive dynasty, the state strove to monopolise whole sectors of industry.[128]

The nascent bourgeoisie underwent a strange life-cycle in all these societies. Each new fabulous accumulation of profits was followed by brutal confiscations and persecutions. Bernard Lewis notes that even the Islamic cities of the Middle Ages knew only an ephemeral existence, with a prosperity which lasted no more than a century and was followed by a long and pitiless decay.[129] The fear of confiscation of their capital haunts the owners of movable property in all these societies. It causes the bourgeois to conceal their profits, to invest them in ten small enterprises rather than one big one, to prefer the hoarding of gold and precious stones to public enterprises, and the purchase

paddle-wheels obstructed the flow of the rivers and caused some of the irrigation water to be lost. Moreover, they caused the depositing of mud in the canals. Accordingly, special laws restricted the use of mills to certain seasons of the year." The author quotes decrees and texts from the eighth century relating to the restriction and destruction of mills.[124]

of landed property to the accumulation of capital. Instead of concentrating, a bourgeoisie like this disperses itself as it disperses its capital. Instead of advancing towards autonomy and independence, it crouches in fear and servility.[130] "Never," says Istvan Balazs, "did the Chinese merchant class attain autonomy . . . the privileges of the big traders were never won in struggle, but were stingily granted by the state. The way of expressing their demands continues, for the merchant and the rest of the *misera plebs*, to be the petition, the timid request humbly submitted to the authorities."[131]*

Only in Japan, whose pirate merchants infested the China Sea and the Philippines from the fourteenth century on, and accumulated substantial capital while the state's authority was breaking down, did the supremacy of the commercial and banking bourgeosie over the nobility, and then the development of manufacturing capital, make it possible to repeat, starting in the eighteenth century, two centuries late, the evolution of capitalism in Western Europe, independently of the latter.†

The predominance of the absolute state in the non-European pre-capitalist civilisations was itself no result of chance. It followed from the conditions of irrigation agriculture, which necessitated a strict administration and centralisation of the social surplus. Paradoxically, it was the superior fertility of their soil and the greater growth of their population that doomed these civilisations to stop midway in their development. The much more primitive agriculture of mediaeval Europe could not carry the weight of a density of population comparable to that of China or the Nile valley in prosperous periods. But just for this reason it largely escaped the control of a centralising state.‡

In the mediaeval towns the bourgeoisie was favoured by a weakened

* The idea that in China, as against mediaeval Europe, the towns were subjected to the close supervision of the mandarins, whereas the villages enjoyed extensive administrative autonomy, was, says Balazs "brilliantly anticipated" by Max Weber. The author seems unaware that Marx expressed the same view three quarters of a century earlier, and that he also clearly defined the difference between Western and Oriental towns.[132]

† Even in Japan, however, the merchant Yodoya Tatsugoro, who had made an immense fortune during the Kwambuu era (1661–1672), had all his property confiscated "because he led too ostentatious a life."[133]

‡ It is interesting to note that in Black Africa the comparative abundance of land, which made possible an infinite spread of primitive agriculture, proved to be a barrier to the flowering of a black civilisation, except in the valleys of the Senegal, Niger and Zambesi.[134] It would seem that the relationship between land, water and population made possible the optimum combination *for agriculture* in the ancient Asian civilisations, and the optimum *economic* combination in Western Europe, starting in the sixteenth century. In this field too there is a striking parallel between the particular conditions in which agriculture developed in Japan (in contrast to the continent of Asia) and in Western Europe.[135]

central power which had to lean upon its support in order to recover the prerogatives it had lost at the dawn of feudalism. At first, the advance of this bourgeoisie was slow and interrupted. Many a Western financier ended up like his Islamic, Chinese or Indian colleague, by having his fortune confiscated by the kings he helped. But from the fifteenth century this interruption became the exception instead of the rule. The superiority of movable wealth over landed property was finally established, and with it the subjection of the state to the golden chains of the public debt. The road was clear for an accumulation of capital without political obstacles. Modern capitalism could be born.

These special features of the economic development of Western Europe (and to a certain extent of Japan) do not mean that the flowering of the industrial revolution was not *possible* in other regions: they merely explain why the capitalist mode of production appeared *first* in Europe. Thereafter it was the violent intervention of Europe in the economies of other parts of the world that smashed the elements that would have made possible more rapid economic progress there, so preventing or holding back their advance. The contrast between Japan on the one hand and India and China on the other shows the decisive role played in the nineteenth century by the maintenance or loss of real political independence, for the acceleration or retardation of the industrial revolution.*

Capital and the capitalist mode of production

Capital can appear as soon as there is a minimum of commodity circulation and of money circulation. It is born and develops within the framework of a pre-capitalist mode of production (village community, petty commodity production). Whatever dissolving effects it has on such a society, these are limited by the fact that it does not change the basic mode of production, especially in the countryside. Loaded with debts, harried by his creditors or by tax-collectors, the pre-capitalist peasant always finds in the solidarity of other villagers a support which guarantees him at least a meagre pittance:

"The Ifugaos [natives of the Philippines] are partial capitalists. Their wealth is rice land. It is prepared with a enormous labour, limited in quantity, and belongs to a class of rich men . . . Through a system of usury, the rich become richer and the poor poorer. Still, the poor are not entirely destitute. Yam gardens are by definition not 'wealth', and cannot be permanently owned. Anyone may plant as much as he wishes, and manage to live after a fashion . . ."[136]

The development of the capitalist mode of production implies the generalisation of commodity production for the first time in mankind's history. This production no longer embraces merely luxury

* See Chapter 13 for numerous examples of economic regression caused by imperialism.

products, the surplus of foodstuffs or other goods of current consumption, metals, salt and other products indispensable for maintaining and extending the social surplus product. Everything that is the object of economic life, everything that is produced is henceforth a commodity: all foodstuffs, all consumer goods, all raw materials, all means of production, including labour-power itself. Every outlet being closed, the mass of dispossessed people who no longer have their own tools are compelled to sell their labour-power in order to acquire the means of life. The entire organisation of society is fashioned so as to ensure to the owners of capital a regular and constant supply of wage labour, so as to facilitate the uninterrupted productive use of their capital.

During the process of its formation, industrial capital obtained, by the methods described above, the parallel formation of the modern proletariat. But when the capitalist mode of production had spread throughout the world, it experienced a need for wage labour before the primitive societies which it encountered were sufficiently disintegrated for this proletariat to be formed in the normal way. The intervention of state, law, religion and morality—if not of force pure and simple—made it possible to recruit the unhappy slaves of the new Moloch. The colonisers of Black Africa and Oceania repeated at the end of the nineteenth century the procedures whereby their slave-trading ancestors had assembled a mass of slave labour. This time, however, it was no longer a matter of sending this labour over the ocean to the plantations of the New World. It was on the spot, in capitalist agricultural, mining or industrial enterprises that this labour was employed to produce the surplus value indispensable to the life of Capital.*

The disintegrating action of money economy on primitive communities has in all civilisations favoured the primitive accumulation of usurer's capital and merchant capital. But it does not ensure by itself the development of the capitalist mode of production, of industrial capital.

However, the disintegrating action of money economy on primitive communities already confronted with the capitalist mode of production becomes the chief force for the recruitment of a native proletariat in the colonies. The introduction of an individual poll tax in money in primitive areas which are still living in conditions of natural economy has uprooted, in Africa and elsewhere, millions of natives from their customary centres and has forced them to sell their labour-power, their only resource, to get money. Where people do not find it necessary to sell their labour-power in order to obtain the means of life, the capitalist state has resorted to this modern form of compulsion in order to

* See Chapter 9, section: "Landed property and the capitalist mode of production."

supply proletarians to the bourgeoisies who are coming into existence in the colonies. For capitalism and the bourgeoisie are inconceivable without a proletariat. According to Alexander Hamilton, freedom is freedom to acquire wealth.[137] *But this freedom cannot be affirmed for one small part of society unless it be denied for the rest, even though this be the majority.*

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THE CONTRADICTIONS OF CAPITALISM

Capital thirsting for surplus-value

THE owner of slaves distributed food among them and in return took the entire product of their labour. The feudal lord took the products of the unpaid work which his serfs were obliged to render him in the form of labour services. The capitalist buys the worker's labour-power for a wage which is less than the new value produced by this worker. In each of these varying forms the possessing classes take for themselves the social surplus product, the product of the surplus labour of the producers.

The contract made at Liège in 1634 between Antoine de Jelly, master-weaver, and Nicolas Cornélis, states bluntly that the latter will be paid "half of what he makes, the other half being the master's profit."*

The wage-worker creates new value while he expends his labour-power to produce commodities in his employer's factory. At a certain moment he will have produced new value exactly equivalent to what he receives as his wages. If he were to stop working at that moment he would not have produced any surplus value. But the employer does not mean that to happen. He does not want to do a favour, he wants to do business. He does not buy labour-power in order to keep it alive, he buys it as he buys any other commodity, in order to realise its use-value.[2] And the use-value of labour-power, from the capitalist's standpoint, is precisely its capacity to create surplus-value, to provide surplus labour over and above the labour needed to produce the equivalent of the wage paid for it. In order to be hired by an employer, a worker must work longer than is needed to produce this equivalent. In doing this he will create new value for which he will be paid nothing. He is creating surplus value, which is the difference between the value created by labour-power and the value of labour-power itself.

* Apologists for slavery did not fail to stress the analogy between this daily, weekly or monthly alienation of a man's labour-power and the alienation for life that is slavery: "It is not essentially repugnant to justice and reason that a man should surrender to another, even for his whole lifetime, the labour that every day a workman pledges to his employer, his master, provided that the inalienable [!] rights of man are safeguarded," wrote in 1742 the Dutch captain Elias Joannes.[1]

The capitalist's aim is to accumulate capital, to capitalise surplus value. The very nature of the circulation of money implies this aim. Industrial capital pursues this aim of accumulation even more, much more insatiably than usurer's capital or merchant capital. It produces for a free and anonymous market, *dominated by the laws of competition.* A capitalist is not alone in offering his products on this market to possible customers. Under the rule of competition, each industrialist tries to grab as large a share of the market as possible. To succeed, however, he must reduce his prices. There is only one way to reduce selling prices without threatening profit: to reduce the cost of production, the value of commodities, to curtail the labour-time socially necessary for producing them, to produce more commodities in the same length of time.

"Last year already the expansion of the enterprise, which took only a few months, enabled us to maintain the profit on our cement business at the expected level, despite the fact that competition considerably cut down the price of cement. This experience has confirmed us in our decision to make up for the increasing decline in prices which we foresee by an increase in the amount we produce," was proudly proclaimed by the annual report of a German cement-works in the nineteenth century.

In order to bring about such an increase in production, equipment must be improved, the process of production rationalised, the division of labour within the enterprise carried to a higher level. All of which demands an increase in capital. But the increase in capital can come, in the last analysis, only from an increase in the surplus-value capitalised. Under the lash of competition, the capitalist mode of production thus becomes the first mode of production in the history of mankind the essential aim of which appears to be *unlimited increase in production,* constant accumulation of capital by the capitalisation of the surplus value produced in the course of production itself.

The capitalist's thirst for surplus value is not the thirst for use-values and luxuries of the old possessing classes; only a limited part of surplus value is consumed unproductively in order to keep the capitalist alive. It is a thirst for surplus-value to capitalise, a thirst to accumulate capital: ". . . that whole system of appetities and values, with its deification of the life of snatching to hoard, and hoarding to snatch . . ."[3]

There is nothing irrational or mystical in this thirst. The old possessing classes, who took the social surplus product essentially in the form of use-values, were assured of being able to go on doing this so long as the social edifice remained standing which had this particular form of exploitation as its foundation. They could be affected only by natural disasters, wars or social revolutions, disasters against which they tried to provide by constituting big reserves. The predominant

form in which capital first appears in history—usurer's and merchant capital—is characteristic of the same striving for *stability and security*. It is significant that the investments made by the bourgeois in the Middle Ages were calculated so as to guarantee stable incomes, regardless of fluctuations in money or prices.[4] The classical type of bourgeois in the historical epoch of the primitive accumulation of money capital, the miser, is haunted by this same thirst for security. It is not the *return* on his capital that he is worried about but its *existence*.

It is otherwise with the capitalist properly so called, the capitalist entrepreneur. Carrying on business for a market which is anonymous, unknown, undefined, his enterprises are dominated by risk and uncertainty. Today a deal has been successful, tomorrow another may fail to come off. It is not only the fact of competition, but the very fact of production which is *free from any overall social regulation** that gives capitalist enterprise this aspect of uncertainty and that compels the capitalist to try and make the maximum profit on each separate deal, in face of the permanent danger that hangs over his business as a whole.

The landowner, the small commodity producer, the purchaser of ground-rents, all find in the certainty of their incomes an adequate reason for keeping their activities within given *limits*. The uncertainty of capitalist profit implies, on the contrary, the need for a continuous *expansion* of business, an expansion which in turn depends on maximum accumulation of capital, maximum realisation of profits. Thus there emerges the image of the capitalist, of whose mediaeval ancestor Georges Espinas has drawn this masterly portrait:

"To achieve the biggest possible gain while paying out the least possible amount in wages; to make the producers supply as much as possible while paying them as little as he can get away with, or even robbing them within the same limits; to draw to himself, to breathe in, to suck up, as it were, all he can take of the money which ought to go to the small employers (the producers) for the work which he alone can obtain for them and which they carry out for him alone—this is obviously the constant aim of the efforts of the 'capitalist' entrepreneur to secure the biggest profit he can, even at the expense of the utmost harm to the people in his employment. He is like a spider, in the centre of his web. To apply this 'sweating' system all means are good in his eyes, and every circumstance is favourable; he

* Such regulation existed for all the pre-capitalist crafts and even for the beginnings of the *Verlagssystem* (putting-out system) in several countries. In Carinthia and Styria in the middle of the fifteenth century "Duke Frederick III regulated afresh the way to be followed for iron, he fixed prices and taxes, restricted the number of forges and the amount of iron that each merchant could have, and laid down the terms of contracts (*Verläge*)."[5]

knows how to take advantage of everything; he cheats on materials, he violates agreements and steals from wages; business means other people's money."[6]

The lengthening of the working day

Thirst for surplus-value is thirst for surplus labour, for unpaid labour over and above the labour that produces the equivalent value of the worker's means of life. In order to get more surplus labour the capitalists can, in the first place, lengthen the working day to the utmost without increasing the daily wage. If we suppose that a worker produces the equivalent of his wages in 5 hours, then lengthening his working day from 10 to 12 hours without any increase in wages will increase the surplus labour from 5 to 7 hours a day, or by 40 per cent. This way of increasing surplus-value is called *increasing absolute surplus value.*

In every society where the obtaining of use values remains the basic aim of production, for both the producers and the exploiters, a constant lengthening of the working day must appear absurd. The limitation of needs and of markets imposes a limit no less narrow upon production. So long as the slavery of ancient times remained patriarchal, on estates which were self-sufficient, the lot of the slaves was quite tolerable, and was really little different from that of the poor relations of the estate-owning family. It was only when the slavery of ancient times became the basis of production for the market that barbarous treatment of slaves became general.[7]

In the Middle Ages, the communal laws placed strict limits on the working time of the craftsmen. In such laws we find, as a rule, besides prohibition of night work, also the stoppage of work on numerous religious holidays (saints' days) and at certain periods of the year. On the basis of a study of the by-laws of the small town of Guines, in Artois, Georges Espinas has estimated the number of actual working days in the mediaeval year at 240.[8] In the Bavarian mines there were in the sixteenth century between 99 and 190 holidays every year.[9] Hue concludes that, taking into account the numerous holidays, the average working week in the mines of the fifteenth century was 36 hours.[10]

As soon, however, as capitalist enterprise appears, a constant striving to lengthen the working day is to be observed. From the fourteenth century onward laws were passed in Great Britain to forbid too short a working day. English writing of the seventeenth and eighteenth centuries is full of complaints regarding the "idleness" of the workers, who, "if they earn in four days enough to provide food for a whole week, do not go to work for the three following days." All the leading bourgeois thinkers take part in this campaign: the Dutchman Jan De Witt, Spinoza's friend; William Petty, the father of

English classical political economy; Colbert, who speaks of the "idle people", etc. Sombart fills seven pages with quotations like this from the period under consideration.[11]

When the capitalist mode of production crosses the oceans and penetrates fresh continents, it finds itself up against the same natural resistance by the workers to the lengthening of their working day. In the seventeenth and eighteenth centuries the press of the virtuous Puritan colonists in North America resounded with complaints about the high cost of labour, "contrary to reason and equity". "'Tis the poor that make the rich," artlessly declared the *New York Weekly Journal*. In 1769 the *Maryland Gazette* complained that "the wages they receive for the labour of one day will support them (the workers) in intemperance for three days."[12] "The denunciations of the 'luxury, pride and sloth' of the English wage-earners of the seventeenth and eighteenth centuries are, indeed, almost exactly identical with those directed against African natives today."[13]

Alfred Bonné notes the amazement shown by Western observers when they behold poor Arabs who prefer to earn £1 a year as shepherds rather than £6 a month as factory hands.[14] Audrey I. Richards reports the same repugnance among the Negroes of Rhodesia: "Men who worked an intermittent three or four hours a day in their tribal reserves are now asked to do a regular eight to ten hours under white supervision on the big plantations or in industrial concerns."[15]

It was sufficient, however, to take advantage of the enormous mass of labour-power uprooted and unemployed as a result of the social and economic upheavals of the period between the fifteenth and eighteenth centuries to bring a pressure to bear on wages which brought them below subsistence level. In this way the bourgeoisie was able to advance from victory to victory in this "struggle against the idleness of the people".

From the eighteenth century onward we find that the normal working day in England is 13 or 14 hours.[16] In the English cotton mills the working week is between 75 and 80 hours in 1747; 72 hours in 1797; between 74 and 80 hours in 1804.[17] And since wages had fallen so low that every day without work was a day without food, Napoleon cuts a more generous figure than his minister Portalis when he rejects the latter's proposal to prohibit Sunday work: "Since the people eat every day they should be allowed [!] to work every day."[18]

The growth in the productivity and intensity of labour

However, absolute surplus-value cannot be increased without limit. Its natural limit is, first of all, the physical capacity of the workers. Capital is interested in exploiting but not in destroying the labour-power which constitutes its constant source of potential surplus labour.

Beyond a definite physical limit, the worker's capacity to produce declines rapidly towards zero.

Furthermore, the organisation of workers' resistance by the trade unions brought about from the middle of the nineteenth century the first regulation of the working day in the direction of laying down a maximum length. The legal limit of the working day was fixed first at 12, then at 10, and in the twentieth century at 8 hours, so as to give in some countries a 40-hour week; not without howls about economic ruin from the bourgeoisie at each reduction.*

Capital now falls back more and more upon a second way of increasing surplus-value. Instead of lengthening the working day, it tries to cut down the labour-time necessary to produce the equivalent of the worker's wages. Let us assume that with a working day of 10 hours, 4 hours are needed to create the amount of necessary value represented by the worker's wages. If this necessary labour can be cut from 4 to 2 hours, then surplus labour is increased from 6 to 8 hours, and exactly the same result is achieved as if the working day had been lengthened from 10 to 12 hours. This is what is called *increasing relative surplus value.*

The increase of relative surplus-value results essentially from *growth in the productivity of labour* thanks to the employment of new machinery, more rational methods of work, a more advanced division of labour, a better way of organising labour, etc.† Industrial capitalism has transformed economic life more than all the earlier modes of production put together. The fall in prices of articles of current consumption is clearly expressed in these figures:

In 1779 a certain quantity of No. 40 cotton thread cost 16s.
In 1784 it cost only 10s. 11d.
In 1799 it cost only 7s. 6d.
In 1812 it cost only 2s. 6d.
In 1830 it cost only 1s. 2·5d.[19]

No less eloquent is the following table, which relates to a slightly later period in the United States, where the triumphs of machine production occurred somewhat later than in Great Britain.

* These howls are to be compared to the well-known exclamation by the economist Senior: "Abolishing the last hour of work means abolishing profit."

† Surplus value is the difference between what is produced by labour-power and the cost of upkeep of this same labour-power. By gathering the workers together in factories and by introducing among them a more and more far-reaching division and co-operation of labour, capital increased their productivity (their production) even without changing the instruments of labour, and took the increased product for itself.

Labour-time necessary for making various articles (in thousands of minutes):

	Manual work		*Machine work*	
100 pairs men's shoes	1859	86·2	1895	9·2
100 pairs ladies' shoes	1859	61·5	1895	4·8
100 dozen collars	1855	81·0	1895	11·5
12 dozen shirts	1853	86·3	1894	11·3
100 dozen corn boxes	1865	6·5	1894	2·7
25,000 lb. soap	1839	25·9	1897	1·3
12 tables	1860	33·8	1894	5·0
50 doors	1857	83·1	1895	30·6
100,000 envelopes	1855	26·1	1896	1·9
Transporting 100 tons of coal	1859	7·2	1896	0·6[20]

By substantially reducing the value of all articles of primary necessity capital reduces the part of the worker's working day during which he is producing the equivalent of his wages. Also to be taken into account is the substitution of cheap articles for dear ones as consumer goods for the working classes—especially the substitution of potatoes for bread—together with a general deterioration in workers' food, housing and clothes, which facilitates the growth in relative surplus value.

Growth in absolute surplus value results, however, from *intensification of labour*, which is basically the same thing as lengthening the working day. The worker is obliged to expend in 10 hours of work the same productive effort as previously he expended in 13 or 14 hours. Such intensification can be brought about by various methods: speeding up the pace of work; speeding up the machinery; increasing the number of machines to be watched (e.g. of looms to be overlooked in textile mills), etc.

Particularly in the most recent phase of capitalist development, characterised by "scientific organisation of labour" (Taylor and Bedaux systems; piece-work; time and motion study, etc.), has the intensification of labour immensely increased the absolute surplus value obtained by capital. Georges Friedmann presents a striking picture of two methods used for this purpose by two great French motor-car firms, Berliet in Lyons and Citroën in Paris:

"Why has the Berliet works the reputation, in spite of the spacious beauty of its halls, of being a gaol? Because here they apply a simplified version of the Taylor method of rationalising labour, in which the time taken by a demonstrator, an 'ace' worker, serves as the criterion imposed on the mass of workers. He it is who fixes, watch in hand, the 'normal' production expected from a worker. He seems, when he is with each worker, to be adding up in an honest way the time needed for the processing of each item. In fact, if the worker's movements seem to him to be not quick or precise enough, he gives a practical

demonstration, and his performance determines the norm expected in return for the basic wage . . . Add to this supervision in the technical sphere the disciplinary supervision of uniformed warders who patrol the factory all the time and go so far as to push open the doors of the toilets to check that the men squatting there are not smoking, even in workshops where the risk of fire is non-existent.

"At Citroën's the methods used are more subtle. The working teams are in rivalry one with another, the lads quarrel over travelling cranes, drills, pneumatic grinders, small tools. But the supervisors in white coats, whose task is to keep up the pace, are insistent, pressing, hearty. You would think that by saving time a worker was doing them a personal favour. But they are there, unremittingly on the back of the foreman, who in turn is on your back; they expect you to show an unheard-of quickness in your movements, as in a speeded-up motion picture."[21]

Capital which is as thirsty as this for every minute, every movement the worker makes, during the whole of the time that "belongs" to it—does this not provide the best illustration of the fact that profit, capitalist surplus-value, is nothing but the unpaid surplus labour of the worker?

We find a striking confirmation of this thirst for surplus labour in the fact that General Motors pays its workers in the United States not by the hour but by the fraction of ten minutes [!] of work they have actually performed.[22]

Daniel Bell sums up admirably the radical revolution that industrial capitalism has carried out in the idea of time: "In the various ways it has been expressed two modes of time have been dominant: time as a function of space, and time as *durée*. Time as a function of space follows the rhythm of the movement of the earth: a year is the curving ellipse around the sun; a day, the spin of the earth on its axis. The clock itself is round; and the hour, the sweep of a line in 360 degrees of space. But time, as the philosophers and novelists—and ordinary people—know it, is also artless. These are the psychological modes which encompass the differing perceptions: the dull moments and the swift moments, the bleak moments and the moments of bliss, the agony of time prolonged and of time eclipsed, of time recalled and time anticipated—in short, time not as a chronological function of space, but time felt as a function of experience.

"Utilitarian rationality [euphemism for industrial capitalism] knows little of time as *durée*. For it, and for modern industrial life, time and effort are hitched only to the clock-like, regular 'metric' beat. The modern factory is fundamentally a place of order in which stimulus and response, the rhythms of work, derive from a *mechanically imposed* sense of time and pace. No wonder, then, that Aldous Huxley can assert: 'Today, every efficient office, every up-to-date factory is

a *panoptical prison* in which the workers suffer . . . from the consciousness of being inside a machine."[23] [Emphasis ours.]

In his book *The Anatomy of Work*, Georges Friedmann quotes the example of a British factory in which several operations have been reduced to a duration of less than a minute.[25]* At the Ford works at River Rouge the conveyor-belt allows less than two minutes for most of the workers to carry out their task.[26] Some technicians have begun to question the efficacy of this "speed-up".[27]

The picture of a contemporary factory that G. Friedmann and D. Bell have given us in the passages quoted brings out also the *hierarchical structure* of the organisation of labour. So long as the producer is himself owner of his means of production the question of a "workshop police" does not arise. It is to his own interest to observe a strict economy of raw material. When domestic industry or the *Verlagssystem* become general, we find that complaints become frequent, on the part of the entrepreneurs, that the producers spoil, waste or steal the raw material entrusted to them. This was one of the main reasons for the establishment of manufactories, in which these workers worked under the constant supervision of the entrepreneur.

The latter has become, from being a mere owner of money and head of an enterprise with the aim of putting this capital to fruitful use, at one and the same time the organiser of an exact technical process of production and the *commander of a mass of wage-workers* who have to be supervised. He is no longer master merely of his capital but also of machines and men.

In order to perform this task effectively, he has to perfect the organisation of labour, introduce intermediate rungs, group the workers into teams under leaders, make use of foremen and workshop managers, technicians and engineers. Alongside the purely technical division of labour in the enterprise a *social hierarchic division of labour* develops and becomes ever more thorough, *between those who give orders and those who carry them out.*†

Human labour-power and machine production

Industrial capital finds its *raison d'être* and the essential source of its power to increase surplus-value in the use of machinery. Capitalism does not introduce new machines to increase the productivity of human labour; that is only a by-product of the aims it pursues. The capitalist

* "In time study, work is divided into elements of the order of a second, or a fifth of a second, while in motion study one goes down to one hundredth or one two-hundredth of a second."[24]

† See the striking parallel which Professor P. Sargant Florence has drawn between the hierarchy of the church, the pyramid of military ranks, and the organisation of present-day factories.[28] Vance Packard has subsequently made use of this parallel, too.[29]

introduces machinery to reduce his costs of production, so as to sell cheaper and beat his competitors. And it is not possible to reduce costs of production by means of machines unless the cost of these machines is itself *less* than the wages of the workers whom the machine replaces. The current expression used in English, "labour-saving machines", indicates only imperfectly the function of machines in the capitalist mode of production. To be bought by a capitalist enterprise a machine must *both save human labour and make profit*; it must be "labour-saving" and "profit-increasing". When a machine costs exactly as much as the *saving in wages* that it can achieve, it will doubtless not be bought, despite the fact that, even so, it may represent a substantial *saving in labour-time from the standpoint of society as a whole.* There we see a very important difference between the dynamics of a capitalist industry and those of a planned and socialised industry.

The cigarette industry was born in the United States in the 1860s. At first all the work was done by hand; a skilled worker could roll no more than 3,000 cigarettes in a working day of ten hours. In 1876 the wages cost was 96·4 cents per 1,000 cigarettes of a certain brand. One firm then offered a prize of 75,000 dollars for the invention of a cigarette-making machine. Bonsack came forward in 1881 with a rational machine which produced between 200 and 220 cigarettes a *minute* and cut wages costs from 96·4 to 2 cents [!] per 1,000 cigarettes. A single one of these machines could have produced all the cigarettes made by hand in the United States in 1875.[30]

A machine which saves wages throws producers out of production. The introduction of machines gives rise to unemployment, and does this so directly that the victims tried at first to destroy these machines which were condemning them to poverty (Luddite movement in Britain; similar movement in France, 1816–1825).* Between 1840 and 1843, as a result of the competition of the mechanised linen industry, the number of Flemish women spinning at home fell from 221,000 to 167,000.[32] In 1824–1825 the introduction of mechanical looms caused considerable unemployment in England, and wages were cut by 50 per cent.[33]

If they were to stand up to competition by large scale machinery the manual workers had to accept big reductions in wages. The weekly wages of hand weavers in Bolton fell from 25s. in 1800 to 9s. in 1820 and from 19s. 6d. in 1810 to 5s. 6d. in 1830.[34]

The unemployment of a mass of workers for whom there is no work because of competition by machines becomes a permanent institution

* In the centuries preceding the industrial revolution the public authorities often confiscated machines which condemned labour to unemployment. Thus, a machine for knitting stockings was forbidden, first in Britain and then in France, in the seventeenth century. In 1623 a machine for making needles, and about 1635 a windmill for sawing wood, were banned in England.[31]

of the capitalist mode of production.* This is the *industrial reserve army*, thanks to which the wage-earners are forced to accept as wages the bare cost of reproducing their labour-power. In the first phase of industrial capitalism, whatever the country in which the capitalist mode of production becomes established, the destruction of the crafts by large-scale industry gives rise to an acute problem of unemployment. Subsequently, other phenomena which we describe later on determine the scope and fluctuations of this unemployment.

Industry based on machinery does not merely transform a section of the producers into wretched unemployed. It devalues manual work in general and changes many skilled workers into unskilled or semi-skilled workers. In the epoch of the craft guilds, or that of domestic industry, every producer was in principle a skilled producer, with a thorough knowledge of his craft. The unskilled "hirelings" were a floating mass which lacked great importance, either numerically or economically. The skill of the producers at their trade was the chief condition for the success of any productive enterprise.

But the division of labour effected in manufacture, and then the general introduction of machinery, and finally the progress of semi-automation, simplify and mechanise to the utmost the work of the producers.[35] Their tasks, which no longer require any skill, are henceforth such that anybody can perform them. An apprenticeship of a few months enables anyone today to become a good worker on the conveyor belt. In the Ford works in the U.S.A., 75 to 80 per cent of the personnel in the production workshops can be trained in less than a fortnight; in one of the factories of the Western Electric trust the percentage of skilled workers has fallen to 10 per cent of the labour force.[36]

The sudden formation of great masses of unskilled producers gave rise, at the dawn of industrial capitalism, to the appearance of a mass of *migrant workers*, such as the navvies of Britain who dug canals and built the railways.[37] Capitalist industry, born amid vast human migrations within the modern nations, caused in its turn a series of such migrations on the national and international scale: massive emigration of Europeans to North and South America, Australia, South Africa, etc.; Indian emigration to the countries around the Indian Ocean, and emigration of Japanese and Chinese to the countries around the Pacific, etc.

* Today as previously, official political economy upholds the same view with great candour. The absence of any unemployment would enable the workers to raise wages "excessively" and provoke inflation. See the *Economist* of 20th August, 1955, and *L'Echo de la Bourse* of 15th December, 1959, which quotes these words, ascribed to ex-President Truman: "On the contrary, it is a good thing for economic hygiene that there should always be some spare labour looking for work."

Forms and evolution of wages

In the capitalist mode of production, labour-power has become a commodity.* Like that of any other commodity, the value of this labour-power is determined by the amount of labour socially necessary to produce it. The value of labour-power is thus the cost of reconstituting this labour-power *in a given social setting* (food, clothing, housing, etc.). Because the worker has only his labour-power to sell in order to buy what he and his family need to live, and because of the presence of the industrial reserve army, wages vary around a *subsistence minimum* (an idea we will define later) which maintains the worker in his condition as a proletarian:

"The workers cannot possess the economic means of improving their position. Industry is organised in such a way that, in order to win independence, the workers would need to have money. How could they get it? . . . As regards the wages that the clothier pays to the petty producers, these are obviously fixed and distributed with a view merely to enabling those who receive them to keep themselves alive, so as to go on working under the exploitation of the one who pays them and keeps them alive for his personal and exclusive profit, and not to enriching them so that they may free themselves bit by bit from their former masters, rise to the level of the latter, and eventually compete with them."[38]

This analysis of the wages received by the small craftsmen of the Middle Ages who did work put out to them by the merchant-masters applies to wages in all forms of civilisation. It is an extraordinarily stable phenomenon throughout the ages. Examining the wages of agricultural workers at Eshnuna, in Mesopotamia, at the beginning of the second millennium B.C., Jacques Lacour-Gayet comes to the conclusion that, "reckoned in terms of wheat these wages are very well comparable with those of our day. The amount of wheat they represent is about the same as that represented by a harvest-worker's wages nowadays."[39]

For ancient Greece, Fr. Heichelheim has worked out the vital minimum of a worker at Delos, in the time of Alexander the Great. It is made up of the *sitos* (basic food, bread), the *opsonion* (additional food), clothes and some small extras. In good years the wages rose a little above this minimum; in bad ones, the extra expenses and even the *opsonion* were practically eliminated.[40]

This characteristic situation in ancient Greece already contains potentially the elements of that fluctuation of wages which is to be

* Is it necessary to add, for the benefit of opponents whether ignorant or dishonest, that it is absurd to say that the Marxists degrade labour-power to the level of a commodity? They merely *recognise* that capitalism has carried out this degradation. The term "Labour Exchange" is sufficient evidence of this.

found in country after country and age after age, allowing for differences in customs, manners, traditions and, above all, *relations of strength between sellers and buyers of labour-power*. At certain times, the *opsonion* and the extras may be fairly big and varied: at others they may disappear almost completely. The two elements, the historical and the physical ("absolute minimum"), nevertheless form integral parts of wages.

The evolution of real wages under the capitalist mode of production corresponds to a series of exact and complex laws. Contrary to what was supposed by Malthus, whose ideas were the foundation for the wages theory of Ricardo and Lassalle ("the iron law of wages"), there is no *demographic law* governing fluctuations in the supply and demand of labour-power ("the labour market"). What determine these fluctuations, in the last analysis, are *the laws of capital accumulation.*

This phenomenon is easiest to grasp in the *short-term fluctuations* during the capitalist production cycle,*, which leads industry out of stagnation and depression, through economic recovery and high conjuncture, towards boom and crisis. At the start of the cycle the mass of unemployed available on the "labour market" as a result of the previous crisis, exceeds the demand for labour caused by economic recovery. Wages will thus remain stable at a comparatively low level. (It is indeed the contradiction between these stable wages and an initial rise in selling prices that makes possible an increase in the profit margin. The rate of profit rises and this encourages recovery.) On the other hand, at the peak of the boom, if full employment is actually achieved (which is not at all a certainty, a point to which we shall return), the demand for labour greatly exceeds the supply, and the workers can bring pressure to bear to push wages up, the reduction in the rate of profit which results being one of the causes of the outbreak of crisis.

We find these laws again at work in *long-term fluctuations*. When the accumulation of capital is taking place at a pace slower than the increase in unemployment which it has itself caused, real wages remain stable or even tend to decline. We can say that in these circumstances the accumulation of capital is destroying more jobs (crafts, agricultural work, domestic work, jobs in enterprises which have been put out of business by competition) than it is creating. The industrial reserve army will then tend to grow over a long period, and there will be no full employment even in a boom period, so that the workers will be unable to win wage-increases in that situation (conditions which prevailed in Europe down to 1850–70 and which still prevail in most

* See Chapter 11, devoted to this problem.

colonial and semi-colonial countries).* We can also say that in this case industrial expansion is proceeding at a slower pace than the growth in productivity.

However, when the accumulation of capital is proceeding at a quicker pace than the growth in the unemployment it causes—when the industrial reserve army ceases to grow, and even tends to be absorbed back into employment, e.g. when large scale emigration occurs alongside hindrances to immigration—real wages will tend to rise slowly over a long period. This is likewise what happens when industrial expansion proceeds at a quicker pace than the growth of productivity.

In fact, it is not the *absolute level* of wages that matters to capital. The latter prefers, certainly, that wages should be as low as possible in its own enterprises—but it wants at the same time to see wages as high as possible paid in competing enterprises or by the employers of its customers! What matters to capital is the possibility of extracting more surplus labour, more unpaid labour, more surplus value, more profit from its workers. The growth in the productivity of labour, which makes possible the growth of relative surplus value, implies the possibility of a slow rise in real wages, if the industrial reserve army is limited, on condition that the equivalent of these increased real wages is produced in an ever shorter period of time, i.e. that wages rise less quickly than productivity.

One can indeed observe in history that real wages are generally highest in the countries which have known for some time a substantial growth in the productivity of labour, as compared with countries where this productivity has remained stagnant for a long time or has risen only slowly.

Nevertheless, the rise in real wages does not follow *automatically* from the rise in the productivity of labour. The latter only creates the *possibility* of such a rise, within the capitalist framework, provided profit is not threatened. For this potential increase to become actual, two interlinked conditions are needed: a favourable evolution of "relations of strength on the labour market" (i.e. predominance of the tendencies for the industrial reserve army to shrink over the tendencies for it to expand), and effective organisation (above all, trade union organisation) of the wage workers which enables them to abolish competition among themselves and so to take advantage of these "favourable market conditions".

Statistics and historical studies have shown that any theory that deduces the level of real wages directly from the relative level of productivity of labour, leaving out the two factors we have just mentioned, does not correspond to reality. Here, taken from a study by the International Federation of Metal Workers,[41] is the productivity

* See some concrete examples in Chapter 13.

(annual production of steel per employed worker) and the average wage (in Swiss francs) in a series of steel works in 1957:

	Annual production per worker *tons*	*Annual profits per worker* *frs.*	*Annual cost of labour per worker* *frs.*
U.S. Steel Corp.	110	6,800	30,000
Inland Steel Corp.	170	6,800	29,800
Youngtown Sheet	150	6,100	27,700
Average of 8 American firms	138	6,400	29,500
United Steel Ltd.	96	3,800	10,500
Colvilles Ltd.	115	3,500	8,700
Average of 8 British firms	100	3,400	±9,500
Yawata Iron & Steel	70	2,200	6,000
Nakayama	170	7,000	7,000
Fuji Iron & Steel	82	3,000	6,500
Average of 6 Japanese firms	76	3,100	6,000

The differences are obvious. The physical productivity of the British steel workers is 33 per cent higher than that of the Japanese, yet the financial productivity is only 10 per cent higher. On the other hand, the difference in the respective wages exceeds 50 per cent. Again, the American steel works enjoy a physical productivity 38 per cent higher than that of the British, and a financial productivity 80 per cent higher. But the American wages are more than three times the British. Between the U.S.A. and Japan the difference in productivity is two to one, while the difference in wages is *five* to one! And one Japanese steel works, Nakayama, has the same productivity as the Americans, whereas it pays wages which are only a *quarter* of American wages!

M. Madinier has convincingly shown in a recent work that the persistence of a wage differential of 20 per cent between the French provinces and Paris is explained essentially by the difference in trade union strength between the former and the latter.

It would be wrong, however, to regard trade union strength as an *independent* variable in the fixing of wages. This is because the possibility of overcoming competition among the workers does not exist—outside certain highly-skilled trades which enforce what is practically a *numerus clausus* in apprenticeships or other access to their ranks —unless the reserve army is no longer steadily increasing. Even in this favourable circumstance, the increase of wages comes up against an *institutional* barrier which is not at all a technical or "purely economic" one. Theoretically, a rise in real wages remains possible so long as the total amount paid in wages is less than the net national product. It then implies *a redistribution of incomes and a reallocation of resources* between the consumer goods sector and the production goods sector, two processes which may cause friction but which are

nevertheless perfectly possible without giving rise to actual crisis or inflation. They merely require an *institutional* change, i.e. the disappearance of the power of capital, and in particular its power to stop investing when the rate of profit falls too low.

Under the capitalist régime, however, increases in wages come up against a certain barrier well before reaching either the physical or the economic one. When, as a result of full employment, wages increase faster than productivity, the rate of profit and even the rate of surplus value decline. And the risk of such a decline occurring quickly sets in motion the readaptation mechanisms of an economy based on profit: on the one hand, compensatory price increases, inflationary tendencies, fall in investment and reduction in employment; on the other, furious rationalisation and replacement of workers by machines. In both cases, unemployment reappears. As soon as this "barrier" is reached, the rise of real wages becomes impossible under the capitalist régime. This is why the most plain-spoken advocates of capitalism declare that it cannot exist in conditions of "over-employment", i.e. full employment.

How are we to explain, within the framework of the theory of labour-value, the increase in real wages which occurs in the circumstances described above?

The value of labour-power comprises not only the prices of the means of existence needed for its purely physical reconstitution (and the maintenance of the workers' children, i.e. the reproduction of labour-power). It also includes a moral and historical element, i.e. the prices of those commodities (and, later, of certain personal services) which the traditions of the given country have come to include in the subsistence minimum.* These needs depend on the comparative level of (past and present) civilisation, and thus, in the last analysis, on the average level of the productivity of labour over a certain period. So long as the pressure of the industrial reserve army prevents these needs being included in the calculation of the subsistence minimum, *wages, i.e. the price of labour-power, fall in reality below the value of labour-power.* When real wages are increased, the price of labour-power merely catches up with its value, which tends to rise with the overall rise in the level of civilisation.

We thus see that *the growth in the productivity of labour has a contradictory effect on wages.* To the extent that it reduces the value of the means of subsistence it tends to cut down, if not absolute wages then at least relative wages (the part of the working day during which the worker is producing the value-equivalent of his wages), and so to diminish the value of labour-power. To the extent that it reduces the value and price of many luxury products, develops mass produc-

* The influence of the "tradition" factor in the forming of wage-levels is strongly emphasised by Polanyi[42] and Joan Robinson.[43]

tion (often at the expense of quality!) and incorporates a number of new commodities* in the subsistence minimum, it tends, on the contrary, to increase the value of labour-power.

The accumulation of capital also has a contradictory effect on the amount of employment and on the trend of wages. To the extent that machines replace men, the reserve army grows. But to the extent that surplus-value is accumulated, that capital enlarges its spheres of operation, that new enterprises continually arise and existing ones are expanded, the reserve army is reduced and capital sets out to find fresh labour to exploit.†

Taking all these factors into consideration, one can explain the main trends in the evolution of wages since the beginning of capitalism. Two main epochs must be distinguished where the countries of Western Europe are concerned: the epoch that runs from the sixteenth century to the middle of the nineteenth, during which wages fell further and further to the level of the mere *sitos*; and then the epoch that runs from the middle of the nineteenth century to our own day, during which wages first rose, then became stable or declined, then rose once again. The *opsonion* and the extras have increased in quantity and become immensely varied, but have in some instances declined in quality, which is also true of the *sitos*.

The epoch of the primitive accumulation of industrial capital was an epoch of fall in real wages, caused principally by the overabundance of labour, by the continual increase in the industrial reserve army, and by the lack of effective organisation of the working class resulting from this. Capital increased the production of absolute surplus value by reducing wages to the point at which, in order to meet his need of bread in one year the British worker had to work, in 1495, 10 weeks; in 1533, 14 or 15 weeks; in 1564, 20 weeks; in 1593, 40 weeks; in 1653, 43 weeks; in 1684, 48 weeks, and in 1726, 52 weeks. With the help of the price revolution all "idleness" had been successfully overcome.[45] Recently, E. H. Phelps Brown and Sheila V. Hopkins have fully confirmed these classic data of J. E. Thorold Rogers. They have found that the real wages of British masons fell from index 110–115 in 1475–1480 to 56 in 1528, 45 in 1600, 38 in 1610–1620, 55 in

* "Two centuries ago not one person in a thousand wore stockings; one century ago not one person in five hundred wore them; now not one person in a thousand is without them," triumphantly proclaimed in 1831 the pamphlet "The Results of Machinery", published by the Society for the Diffusion of Useful Knowledge.[44]

† In a country which is already highly industrialised, a sudden large-scale demand for labour can be met only by incorporating millions of housewives, youngsters and retired people in the proletariat, after full employment has been attained. This is what happened during the Second World War, in the United States, in Germany, in Britain, etc. Thereafter, the only thing to do is to import or attract foreign labour.

1700, 65–70 in 1740–1750, 53 in 1765–1770, 47 in 1772 and 38 in 1800. Only around 1880 did the figure again rise above index 100![46]

Nor were matters different in France. The Vicomte d'Avenel has calculated that betwen 1376 and 1525 a carpenter had to work, on the average, 5 days in order to earn the equivalent of a hectolitre of wheat; his daily pay was worth 3 kilogrammes of meat. In 1650 he had to work 16 days to obtain the same equivalent of wheat, and his daily pay was worth no more than 1·8 kilogrammes of meat.[47]

From the middle of the nineteenth century, however, real wages began to rise. In Britain and France they practically doubled between 1850 and 1914.[48] The capitalists succeeded during an entire period (abolition of the Corn Laws in Britain; increasing exports from overseas countries) in bringing about a considerable decline in agricultural prices. The capitalist mode of production experienced a remarkable expansion, conquering enormous international markets. In this way it has to some extent absorbed the industrial reserve army in the countries of Western Europe, only to reproduce it, to "re-export" it on a larger scale, in India, China, Latin America, Africa and the Near East. The mass emigration from Europe to overseas white-settlement countries reduced still further the supply of labour on the European labour market. All these factors, closely interlinked and characteristic of a certain structure of the world market, created conditions favouring the reinforcement of trade-union strength and the rise of real wages in Western Europe.

Competition from female and child labour was for a long time one of the chief means of reducing average wages.*

Another means to the same end from the Middle Ages onward was the *truck system*: payment of wages in kind, i.e. in products of which the employer arbitrarily determined the price or reduced the quality. Opposition by the workers eliminated this form of super-exploitation despite strong resistance from the employers.[50] It continues, however, in a special form, in the institution of shops which belong to industrial concerns, shops in which the workers have to buy the goods they

* Down to 1816, several London parishes were in the habit of "selling" hundreds of poor children to textile mills in Lancashire and Yorkshire, some two hundred miles from London! These children were sent "by wagon loads" and the philanthropist Sir Samuel Romilly declared that they were lost to their parents for ever, no less than if they had been sent to the West Indies. The same writer quotes this particularly frank, cynical and odious passage from a speech made in 1811 in the House of Commons by a Mr. Wortley:

"Mr. Wortley, who spoke on the same side, insisted that, although in the higher ranks of society it was true that to cultivate the affections of children for their family was the source of every virtue, yet it was not so among the lower orders, and that it was a benefit to the children to take them away from their miserable and depraved parents. He said too that it would be highly injurious to the public to put a stop to the binding of so many apprentices to the cotton manufacturers, as it must necessarily raise the price of labour . . ."[49]

need and to which they fall into debt, thus finding themselves tied for life to the same employer (this is one of the forms still prevalent today of *peonage* in the southern states of the U.S.A., e.g. in the turpentine industry).

Leaving aside wages paid in kind, the two most common forms of wages are *time wages* and *piece wages*. Time wages have fewer disadvantages from the standpoint of the interests of the working class. Piece wages, on the other hand, which urge the worker to constant increase in output, to speed-up the pace of production and ceaseless intensification of work, are the ideal tool for the employers to use to increase production of relative surplus value.

A concealed form of piece wages is the *bonus* system, which appeared in the American metal industry about 1870. There are now several different methods of calculating bonus: the Rowan, Halsey, Bedaux, Emerson, Refa and other systems. All these methods have in common that the worker's output increases faster than his wages. Of the mass of value created by the worker, a *smaller and smaller* fraction returns to him, and the relative surplus value increases proportionately. Thus, under the Rowan system, if output increases by 50 per cent, wages rise by 33 per cent; if output increases by 100 per cent, wages rise by 50 per cent; if output rises by 200 per cent, wages rise by 66 per cent, etc.

As for the Bedaux system, it has been estimated in the U.S.A. that it has generally led to an increase in production by 50 per cent, against an increase of 20 per cent in wages.[51]

Writers who are frankly in favour of the bonus system, like Dr. A Perren, admit the advantages that the employers derive from these various systems.[52] The same result is achieved by the various systems of *profit sharing* by which the workers are induced to increase not only their individual output but also that of the entire enterprise.

Additional note on the theory of absolute impoverishment

The "theory of absolute impoverishment" is not to be found in the works of Marx. It was ascribed to him by political opponents, especially what was called the "revisionist" trend in the German Social-Democratic Party. It is to say the least paradoxical that a whole school claiming to be orthodox Marxist has thought it necessary to adopt this "theory of impoverishment" and defend it with persistence and bad faith, bringing discredit on Marxist theory.*

* We will restrict ourselves to two examples:

In the *Textbook of Political Economy* published in August 1954 in the U.S.S.R., it was stated that: "Absolute impoverishment is expressed in the fall in real wages . . . In the twentieth century the real wages of the workers in Britain, the U.S.A., France, Italy and other capitalist countries are lower than in the middle [!] of the nineteenth century."[53] "In the United States . . . real

The idea that the real wages of the workers tend to decline more and more is totally alien to Marx's writings; it was formulated by Malthus and taken up most notably by Lassalle, who wrote of an "iron law" of wages. Marx waged a lifelong fight against this "iron law", a fight which one cannot really dismiss as due to a mere misunderstanding, as John Strachey does.[58] Actually, as we have shown above, he always insisted on the fact that wages are determined by complex laws and that denunciation of the capitalist order must be independent of the relative level of wages.*

What one finds in Marx is an idea of the absolute impoverishment not of the workers, the wage-earners, but of that section of the proletariat which the capitalist system *throws out* of the production process: unemployed, old people, disabled persons, cripples, the sick, etc., *die Lazarusschicht des Proletariats* as he calls it, the poorest stratum "bearing the stigmata of wage labour". This analysis retains its full value, even under the "welfare" capitalism of today.

In the United States poverty has certainly not disappeared, despite the considerable increase in real wages.[61] It is enough to look at the frightful slums that fill entire districts of New York, Chicago, Detroit, San Francisco, New Orleans, and other southern towns, to realise that these victims of an inhuman society, brutalised and dehumanised by this same society, continue to constitute a terrible reproach to the

wages had fallen by 1938 to 74 per cent of what they were in 1900. In France, Italy and Japan . . . real wages fell during the nineteenth and twentieth centuries even more than in the U.S.A."[54] "In France and Italy, real wages amounted in 1952 to less than half of pre-war."[55] "In the U.S.A. 72·2 per cent [!] of all American families had in 1949 incomes which were lower than the excessively modest official subsistence level,"[56] etc.

In the Soviet newspaper *Trud*, Academician A. Leontiev published in July 1955 a series of articles in which the following appeared: "Absolute impoverishment is expressed above all in the fall in the real wages of the bulk of the workers . . . The average real wage of an American worker . . . was in 1947–51 15 per cent less than in 1938–40; in 1951, the real wage of an American worker was 23 per cent less than in 1946 and 21 per cent less than before the war. With their wages the American workers could buy 59 per cent as much food, clothing and other consumer goods [!]."[57]

For amusement's sake one may put these two statements together. Wages in 1951 are 21 per cent less than wages in 1938 which are 74 per cent of wages in 1900. Consequently, from 1900 to 1951 American real wages must have fallen from 100 to 58·5. But in 1900 they were already below the level of the middle of the nineteenth century. One would have to assume then, according to these "statistics", that between 1850 and 1950 American real wages declined by over a half. Is there a single economist capable of really believing such nonsense?

* Roman Rosdolsky[59] has collected all the passages in Marx's economic writings which relate to the theory of wages and has found only one passage that might be found confusing, as to the possibility of an upward trend of real wages when there is a marked increase in productivity. See also Steindl, in his important work *Maturity and Stagnation in American Capitalism.*[60]

richest capitalism in the world.* To this permanent absolute impoverishment of the "infra-proletariat" there must be added the *periodical* absolute impoverishment of the workers hit by conjunctural employment, the fall in wages during crises, etc.

A more subtle variant of the "absolute impoverishment" school tries to prove that this expression can apply even when real wages are rising. Discussion then gets lost in a semantic maze. Arzumanian declares that "absolute impoverishment" is expressed in intensification of labour, increase in accidents at work, the increase [!] in the value of labour-power and the fact that (rising) real wages fall further and further behind this value.[63] An "absolute impoverishment" which is expressed in an *increase* in the value of labour-power and an *increase* in real wages does violence to logic—formal logic no less than dialectical logic. It seems obvious to us that all these formulations imply a *relative* impoverishment, i.e. an impoverishment *not* in terms of absolute data (in these there is an improvement in status) but *relatively* to social wealth as a whole, to surplus value, to the productive effort contributed by the proletariat, etc.

In fact, the phenomenon of *relative impoverishment* is most typical of the capitalist mode of production. Increase in the rate of surplus value is at once the essential tool of capital for achieving accumulation of capital and also its chief weapon for countering the tendency to a fall in the average rate of profit. It is in this increase in the rate of surplus-value that the exploiting character of capitalist economy is expressed.

Empirical data broadly confirm this tendency to a decline in the relative place of *wages*† in the net product created by labour. John Strachey, though a stern (and unjust) critic of Marx's economic system, states: "In Britain . . . it [the share of wages in the total national income] appears to have been around 50 per cent in Marx's day: to have declined to about 40 per cent in the early years of the twentieth century; to have stayed about there till 1939, and then (including, as you must, the pay of the Forces) to have gone back to around 50 per cent by the end of the Second World War."[64]

By deducting the pay of the Forces, who after all are not producers, we arrive at a percentage of 47 in 1949 and a decline by several points

* Allison Davis has observed that people of this class are so used to living on the brink of disaster and hunger that they do not know what ambition is, or the desire to acquire higher knowledge. "In a sense," he writes, "ambition and the drive to attain the higher skills are a kind of luxury. They require a minimum *physical* security; only when one knows where his next week's or next month's food and shelter will come from can he and his children afford to go in for long-term education and training . . ."[62]

† We shall deal in the next chapter with the question of the extent to which office-workers can be regarded as producing surplus value and whether they are paid out of the surplus value produced by the workers.

after 1951.[65] This slight tendency to decline (or, if preferred, this remarkable stability of labour's share in the national income), has not resulted from the normal functioning of the system, but from a determined struggle by the wage-earners to increase their share. Is it possible now to deny that capitalism shows an inherent tendency to relative impoverishment, to a reduction in labour's share in the net product of industry? "No," replies Mr. Strachey.[66]

These calculations are not completely exact, moreover, since they leave out of account the numerical increase (both absolute and relative) of the proletariat as compared with Marx's time, with the beginning of the twentieth century, or even with the period before the Second World War. Even if "labour's share" in the national income had remained the same as a percentage, it would still have declined from the moment that this 50 per cent of the national income was being shared no longer among 60 per cent but among 80 or even 90 per cent of the population. The most exact mode of calculation would compare income per wage-earner with income per head of population, and study the fluctuations in the relation between these two magnitudes. There is little doubt that the former has declined in relation to the latter as compared with the middle of the nineteenth century, with the beginning of the twentieth century, and with the 1930s, in all the main capitalist countries.

In the United States the tendency is very clear. Here is the share of wages in the net product ("value added") of manufacturing industry:

	%
1880	48·1
1890	45·0
1899	40·7
1909	39·3
1919	40·5
1929	35·5
1939	36·7
1949	38·5
1952	35·0[67]

Still more to the point, here is the evolution of the gross real product per hour of work and gross real time wages, in decade averages:

	Real product per hour, in indices	*Real time wage, in indices*
1891–1900	100	100
1901–1910	122·8	102
1911–1920	146·0	109·1
1921–1930	196·4	137·2
1931–1940	233·5	158 [68]
1941–1950	281·3	209

Periodical absolute impoverishment of the unemployed and other victims of the capitalist production process; more or less general relative impoverishment of the proletariat (i.e. increase in real wages which over a long period is less than the growth in social wealth and the average productivity of labour): these are the laws of development for the working class under the capitalist system.

Dual function of labour-power

In the age of petty commodity production the essential instruments of labour—looms, forges, etc.—were acquired once for all and passed down from generation to generation. Like the peasant's land they did not constitute means of production subject to depreciation out of current production, but merely the conditions, the instruments, of men's livelihood. The clothier sold raw material to the small clothing worker and bought from him his finished product. The difference between these two prices merely represented, in fact, the craftsman's wage. When the entrepreneur took to organising weaving on his own account, his costs of production were confined essentially to costs of raw material and wages. The function of the labour-force whose labour-power he bought was exclusively that of adding to the value of the raw material a newly created value, one part of which (corresponding to wages) increased the entrepreneur's costs of production, while the other part (in exchange for which the workers got nothing) represented surplus-labour, surplus value appropriated by the capitalist.*

Things change with the flowering of industrial capital, of the capitalist mode of production. *The purchase of machines* now becomes the preliminary condition for production intended for a market which is governed by competition. In order to buy these machines, a substantial amount of capital has to be advanced. The machines will not be passed down from generation to generation, nor even used throughout the lifetime of the entrepreneur. They will be used so intensively that after a certain time they will be *physically worn-out*. And not much time will pass before competitors have built more modern machines, producing more cheaply, which will have to be bought if one is not to be overcome in the battle of competition. Thus, the old machines undergo a *moral depreciation* before their physical depreciation properly so called. The capitalist entrepreneur, unlike the petty commodity producer, does not look on them as a mere means of livelihood, but as *capital enabling him to accumulate surplus value.*

The capital advanced for the purchase of machines will thus have

* It was therefore logical that the first classical writers of political economy, especially Adam Smith, reduced the value of commodities to the incomes of the producers and the owners, forgetting the part of this value which reproduced a fraction of the instruments of labour.

to be depreciated within a definite period of time, or else the capitalist will not be in a position to keep up with technical progress and acquire more modern machinery. In the United States it is at present estimated that a machine-tool is physically worn-out after ten years; however, it is morally worn-out after only seven years, and must be replaced by something more up-to-date.[69] Thus, after seven years the capitalist will have to have depreciated the value of his machines, the capital he laid out on their purchase. This "depreciation" can be accomplished in one way only—by transferring to each commodity produced a fraction of the value of the means of production with which it was produced.

In this way labour-power fulfils a dual function from the capitalist's point of view: it conserves the value of the means of production which are used in production; and it creates new value. As part of this new value represents the equivalent of wages, capital advanced by the capitalist, it can be said that labour power *conserves all the value of existing capital and creates all the new value* appropriated by the capitalist.

Every industrialist understands this quite well. He tries to reduce to the utmost possible extent the time during which his machinery, etc., is out of use. Each day, each hour that a machine is not being used to produce is a day, an hour during which it is wearing out physically, and still more morally without a corresponding fraction of its value being conserved by labour power. This is what leads, in many enterprises, to continuous shift work, 24 hours a day.

The capitalist who starts up an industrial enterprise has to divide his capital into two different parts. One part is for acquiring machinery, buildings, raw material, auxiliary products, etc. This part of capital has its value *conserved* in the course of the production process by being incorporated in the value of the finished product. For this reason it is called *constant capital*. The other part of capital goes on the purchase of labour-power. This is the capital that is increased by the surplus-value which the workers produce. For this reason it is called *variable capital*. The ratio between constant and variable capital is called the *organic composition of capital*. The more advanced an enterprise, a branch of industry or a country is, the higher is the organic composition of capital, i.e. the bigger is the share of total capital which is spent on buying machinery and raw material.

The product newly created by labour-power is divided between employers and workers in accordance with the ratio between surplus value and wages. This ratio is called the *rate of surplus-value*: it shows the degree to which the working class is exploited. The higher it is the bigger is the share of the new value created by labour power which is taken by the capitalist. This rate is therefore of the greatest interest to the workers themselves.

But it is of no interest to the employer. *He* is interested in concealing this exact ratio of exploitation, which is hidden behind the exchange of labour-power for wages. What interests the capitalist is the ratio between the mass of surplus value that his business brings him in and the total amount of capital he has advanced: for did he not invest all this capital in order to make a profit on it?

The purchase of machinery is "productive expenditure" for the capitalist only to the extent that the capital laid out for this purpose brings profit, exactly as with the capital laid out for the purchase of labour-power. If it did not, he would not buy a single machine. He therefore looks on the mass of surplus-value produced by his enterprise as a return on his capital as a whole. This ratio is called the *rate of profit*.

If we represent constant capital by c, variable capital by v, and surplus-value by s, we thus obtain the following formulae:

$$\text{Organic composition of capital: } \frac{c}{v}$$

$$\text{Rate of surplus value: } \frac{s}{v}$$

$$\text{Rate of profit: } \frac{s}{c+v}$$

The equalisation of the rate of profit in pre-capitalist society

Under petty commodity production, two kinds of commodities are put on the market: a mass of articles of primary necessity, belonging to producers who work with their own means of production (craftsmen and peasants) and who are thus outside the sphere of operation of capital; and a series of luxury articles and exotic products brought in by merchant capital. In normal times, the articles of primary necessity are sold at their exchange value (determined by the amount of labour socially necessary to produce them); the luxury articles are sold at monopoly prices; i.e. above their value, the merchants accomplishing to their own advantage a transfer of value at the expense of both producers and customers.*

* In mediaeval Europe the price of food was usually fixed in the towns and did not allow big profit margins, except when purchase prices were below value, as was long the case with purchases made by the Hanse towns. In the Islamic Empire, where this fixing of prices was not usual and where the corn trade was more highly capitalised, the alternation of good and bad harvests caused violent fluctuations of prices (and profits). Here are the prices of wheat in Baghdad, in French (Germinal) gold francs per metric quintal and in annual averages: in 960, 29·04 F.; in 970, 12·10 F.; in 993, 163·20 F.; in 1025, 96·81 F.; in 1083, 4·84 F.[70]

For these two commodity circuits to remain separated from each other two conditions were needed. On the one hand, it was necessary that for economic reasons (stability and normal satisfaction of outlets) and also social ones (legislation, defining the conditions of entry into a craft industry) capital should have no access to the sphere of production. On the other, it was necessary that the comparative scarcity of capital and comparative abundance of outlets should make possible the establishing of a series of *parallel monopolies* in the sphere of trade in luxury products. The first condition remained in force right to the end of the Middle Ages. From the sixteenth century, manufacture and domestic industry entered into increasing competition with the crafts, but only with the triumph of the big factory did capitalist industrial enterprise come to produce the bulk of articles of current consumption and so to determine their value.

It was otherwise with the second of these conditions. From the beginning of the fourteenth century, capital engaged in international trade in Western Europe began to outgrow the limits of the outlets to hand. While the big monopoly profits of former days were still to be found in adventurous and distant enterprises (overland trade with India and China), in what Robert Lopez calls "the inner circle" of the international trade of that time, which embraced the whole of Europe and the Near East, fierce competition led on the one hand to increasing costs of purchase at the source, and on the other to considerable reductions in selling prices, and so of profits.[71]

Whereas the Byzantines, at the start, and then the Venetians, had formerly enjoyed real monopolies in the sale of silk and of certain spices, the Genoese, the Catalans, and later the French and Germans, now participated in this trade on an equal footing. Whereas the Flemish master-clothiers had monopolised the trade in cloth, from the fourteenth century the Italians, Brabanters, English, French and Germans broke this monopoly. Whereas the German Hanse had monopolised the trade in herrings, timber and wheat from the Baltic, English, Flemish and especially Dutch merchants were soon to crack open these monopolies.[72]

The fourteenth and fifteenth centuries were thus characterised by a vast ebb and flow of merchant capital, breaking down the monopolist compartments of earlier centuries. This flow of capital made its way towards the sectors in which prices and profits were highest. In this way an *equalisation of the rate of commercial profit* came about, the formation of an average rate of profit which Lopez evaluates at 7 to 12 per cent. Though the sudden increase in profits which accompanied the commercial revolution of the sixteenth century continued for at least a century, commercial competition soon smashed the Spanish and Portuguese monopolies, and the equalisation of prices and profits of luxury articles continued, on a much vaster scale, in the great *entrepôts*

and trading centres of the modern world: Antwerp, Amsterdam, London, Venice, Hamburg, Bordeaux, etc.*

The equalisation of the rate of profit in the capitalist mode of production

A similar phenomenon occurred after the advent of the capitalist mode of production. When a new sector of production opens up, capital at first risks itself in this new sector only with circumspection. The first builders of mechanical looms became textile manufacturers and often continued to make their own machines. Capital begins to flow into a branch of industry only from the moment when high profits can be got from it. Thus, during 1820–1830, when the demand for textile machinery was constantly growing, big independent works for making machines were set up in Britain.[74]

In the same way, when, after the Napoleonic Wars, the price of coffee rose steeply in a Europe freed from the Continental blockade, whereas the price of cane sugar declined in face of the competition of beet sugar, many planters in Java, Cuba, Haiti and San Domingo set themselves to replace their plantations of sugar-cane with plantations of coffee. After 1823 a collapse of prices and profits occurred, and the rates of profit on coffee and cane sugar became equal.[75]

The first technician of Portland cement in Germany, M. Bleibtreu, was for ten years the only person to carry on this branch of industry. It needed the boom of 1862–1864 and a profit of 25 per cent per ton to attract other capital, which in turn brought prices down.[76]

The equalisation of the rate of profit in the capitalist mode of production thus results from the ebb and flow of capital, which flows into the sectors where profits are higher than the average and out of the sectors where profits are lowest. The ebbing of capital reduces production, creates a shortage of goods in the given branch, and so leads to an increase in prices and profits. The influx of capital, on the contrary, causes intensified competition in the sectors affected, resulting in a fall of prices and profits. Thus an *average rate of profit* is attained in all the sectors, through competition in capital and commodities.

Under petty commodity production, the producers sell their goods, as a rule, at their actual value (labour time socially necessary to produce them). Under capitalist production, the goods still possess an actual value. It breaks down into value *conserved* by labour-power, the value of the constant capital expended for the production of these

* The Augsburg house of Welser participated in financing the Portuguese expedition to India in 1505, financed another expedition (half-commercial, half-military) to Venezuela in 1527, engaged in the spice trade between Lisbon, Antwerp and South Germany, was a partner in exploiting the silver and copper mines of the Tirol and Hungary, and possessed trading establishments in the chief towns of Germany, Italy and Switzerland.[73] In short, its capital penetrated into every sphere where a high profit was to be obtained.

goods, and value *newly created* by labour-power (variable capital + surplus-value). The value of each capitalist commodity can be represented schematically by the formula $c + v + s$.

Let us imagine three enterprises in different branches of industry: A, B and C. A, let us say, is a *pasta*-making factory, where comparatively few machines are used and a lot of labour; B is a textile mill, where more machinery is used; and C is an engineering works, where even more machinery is used than in A and B. We shall thus have a higher organic composition in B than in A, and in C than in A and B.

Let us now suppose that an average level of productivity and intensity of labour exists and that the rate of surplus-value is the same in the three factories, namely 100 per cent. The value of the production of these three factories could then be expressed like this (each unit representing, say, 1,000 francs).

$$\text{A: } 3{,}000\ c + 1{,}000\ v + 1{,}000\ s = 5{,}000$$

$$\frac{s}{v} = 100\% \quad \frac{s}{c+v} = \frac{1{,}000}{4{,}000} = 25\%$$

$$\text{B: } 4{,}000\ c + 1{,}000\ v + 1{,}000\ s = 6{,}000$$

$$\frac{s}{v} = 100\% \quad \frac{s}{c+v} = \frac{1{,}000}{5{,}000} = 20\%$$

$$\text{C: } 5{,}000\ c + 1{,}000\ v + 1{,}000\ s = 7{,}000$$

$$\frac{s}{v} = 100\% \quad \frac{s}{c+v} = \frac{1{,}000}{6{,}000} = 16.6\%^{*}$$

The rate of profit is thus lowest in the sector with the highest organic composition of capital. This is understandable, since only variable capital produces surplus-value. But the capitalists, as we have seen, are interested only in the rate of profit returned on the whole of their capital. Capital will thus flow towards the sectors with the lowest organic composition of capital, where the rate of profit is highest. And influx of capital means intensified competition, increased use of machinery and rationalisation of work. But these changes lead precisely to an increase in the organic composition of capital. And increase in the organic composition of capital means fall in the rate of profit. The ebb and flow of capital thus tends to equalise the rate of profit in the different branches of production by changing, through competition, the organic composition of their capital.

* This table, like that on page 160, is directly inspired by those used by Marx in *Capital*. Technically speaking, these tables are not quite correct, since they calculate the rate of profit on the basis of the *flow* (in percentage of current production), whereas the capitalists calculate on the basis of the *stock* of capital invested. This distinction between "flow" and "stock" has become current in the contemporary macro-economic techniques: to overlook it would lead to serious mistakes. Nevertheless, it is sufficient to imagine an enterprise which has to renew all its invested capital each year for these examples to become technically correct.

Price of production and value of commodities

Does this mean that a levelling of the organic composition of capital in different branches of industry must actually *precede* the equalisation of the rate of profit? Not at all. Let us look again at our three factories A, B and C, each characteristic of a different branch of industry. The differences in organic composition of capital between these factories broadly correspond to differences in productivity of labour, which we can regard as more or less proportionate to the organic composition of capital.

Let us say that factory B, with its organic composition of capital $\frac{4{,}000\,c}{1{,}000\,v}$ represents exactly the average of the productivity of labour at the given period in the given country. If this is so, then factory A, with a productivity of labour which is lower than B's, is working below the *average* conditions of productivity. From the standpoint of society, *it is wasting labour* (just as a weaver who is too slow wastes labour under petty commodity production). On the other hand, factory C, with a productivity of labour higher than B's, is *saving human labour from the standpoint of society.*

Now, it is the amount of labour *socially* necessary—i.e necessary under *average* conditions of productivity—that determines the social value of a commodity. The social value of A's production will thus be lower than the amount of labour actually expended on producing these commodities, lower than its individual value; the social value of C's production will be higher than the amount of labour actually expended on producing these commodities. Through the competition of capital and commodities a transfer of value and surplus-value thus takes place, from sectors where productivity is low to sectors where productivity is high.

But only what exists can be transferred. The total value of all the commodities cannot exceed the total value conserved and newly created in their production. It is in the redistribution of surplus value between the different sectors that this transfer of value is effected, through the equalisation of the rate of profit. In the example we have taken, the total amount of surplus value produced was 3,000. The total amount of capital advanced (4,000 + 5,000 + 6,000) was 15,000. The average rate of social profit works out thus at $\frac{3{,}000}{15{,}000}$, or 20 per cent. The prices that the commodities A, B and C will fetch on the market will be:

A: $3{,}000\,c + 1{,}000\,v + 800\,s = 4{,}800$	$\frac{s}{c+v} = \frac{800}{4{,}000} = 20\%$
B: $4{,}000\,c + 1{,}000\,v + 1{,}000\,s = 6{,}000$	$\frac{s}{c+v} = \frac{1{,}000}{5{,}000} = 20\%$
C: $5{,}000\,c + 1{,}000\,v + 1{,}200 = 7{,}200$	$\frac{s}{c+v} = \frac{1{,}200}{6{,}000} = 20\%$

These prices fetched by the commodities on the capitalist market, consisting of the capital advanced for producing them together with this capital multiplied by the average rate of profit, are called their *prices of production*. The formation of these prices under normal conditions of competition means that each unit of capital appropriates a fraction of the total surplus-values produced by society, a fraction equal to the fraction of social capital represented by the unit of capital in question.

Though the formation of prices of production may cause these to vary considerably from the *individual value* of commodities, this in no way means an impairment of the law of value. It is merely the particular application of this law to a society governed by profit, producing under conditions of competition, with levels of productivity constantly changing. It is precisely through competition that it is discovered whether the amount of labour embodied in a commodity constitutes a *socially necessary* amount *or not*. The fact that, through the competition of capital and the equalisation of rates of profit, a part of the surplus-value produced in branches of industry with a low organic composition of capital is drained off towards the branches with high organic composition corresponds to the waste of social labour that occurs in the former branches. A part of the human labour expended there was expended uselessly, from the standpoint of society, and therefore will not be given equivalent recompense in the process of exchange.*

The operation of the well-known "law of supply and demand" is nothing but an illustration of the same law of value. When the supply of a certain commodity exceeds the demand for it, that means that more human labour has been spent altogether on producing this commodity than was socially necessary at the given period. The market price of these commodities then falls below the price of production.

When, however, supply is less than demand, that means that less human labour has been expended on producing the commodity in question than was socially necessary: the market price will then rise above the price of production.

When market prices fall, profits fall; the capitalists adapt themselves to the situation by improving the average productivity of labour (reducing costs of production), which eliminates enterprises where productivity is too low and brings supply down to the level of demand (which may then rise, when market prices fall to a serious extent). When market prices rise, capital is attracted into the branch concerned,

* Numerous writers, from Böhm-Bawerk to Pareto, have claimed that Marx, after setting out the labour theory of value in Volume I of *Capital*, had to tacitly revise this theory when he tried, later on, in Volume III, to analyse the working of capitalist economy as a whole. It is now known, since the publication of the *Grundrisse*, that Marx had worked out the theory of prices of production not later than 1858, i.e. before he had ever written Volume I!"

by the high profits obtainable, and production increases until supply exceeds demand and prices start to fall. The working of competition, the variation of market prices around the values (around the prices of production) of commodities, is the only mechanism whereby, in an anarchic society which produces for a blind market, the capitalists can tune in to social needs. But the working of the "law of supply and demand" explains only the *variations* of prices; it does not at all determine the *axis* around which these variations occur, and which remains determined by the labour expended in the production of commodities.

The equalisation of the rate of profit and the distribution of capital and resources between the different branches of the economy in accordance with the needs revealed on the market can take place in classic fashion only if conditions of perfect competition exist at all levels, among buyers, among sellers, and between buyers and sellers.* Such perfect competition has never existed; this is why in the initial period of capitalism there was only an *approximation* to an equalisation of this kind, taking into account the monopoly and semi-monopoly sectors which then survived as vestiges of earlier epochs. Later, when the capitalist mode of production itself reached the stage of monopoly, the equalisation of the rate of profit assumed a new and special form.†

Centralisation and concentration of capital

The equalisation of the rate of profit favours those capitalist enterprises which have the highest degree of productivity. It works against those enterprises that operate with costs of production above the average prices of production. Now, reducing costs of production and increasing the productivity of labour means, first and foremost, improving and adding to the means of production, replacing living labour (labour-force) by dead labour (instruments of labour which are nothing but the crystallisation of unpaid labour). It is therefore the best equipped enterprises, those with the highest organic composition of capital, that come out on top in capitalist competition.

"The industrial employer . . . found himself urged on to new conquests by the pressure of the machine itself. He had to be abreast of his competitors in reducing prices; and this was a perpetual incentive to

* This last condition is *institutionally* put out of the question by the capitalist mode of production so far as the owners of labour-power are concerned.

† The whole problem of the transformation of value into price was examined in great detail, with meticulous calculation, by Natalie Moszkowska: *Das Marxsche System: ein Beitrag zu dessen Aufbau*, a book which appeared in 1929 and which attracted little comment outside Germany. In the next edition of this *Traité* we shall discuss, in a spirit of appreciation and criticism, this contribution of Natalie Moszkowska's to the development of Marxist economic theory.

him both to increase his scale of production and to avail himself of the improved machines that were constantly being produced. There was doubtless . . . an optimum size for any given business beyond which it is could not grow without loss of productive efficiency. But as the optimum was growing larger with very great rapidity, the great majority of businesses were probably well below it and racing to catch up."[78]

The further machine production advances, the higher becomes the organic composition of capital needed for an entrepreneur to secure the average profit. The average capital needed in order to start a new enterprise capable of bringing in this average profit increases in the same proportion. It follows that the average size of enterprises likewise increases in every branch of industry. Those enterprises will be the most likely to succeed in competition which have an organic composition of capital which is above average, which possess the largest reserves and funds for most rapidly advancing along the road of technical progress. Here, as one example among hundreds, is a table showing the increasing size of investments, and so of technical progress, in proportion to the size of enterprises, in West Germany:

Investments in percentages of turnover in 1955.[79]

Enterprises with:	*Chemical industry*	*Engineering*	*Electrical industry*	*Textile industry*
1 to 49 employees	3·4	1·5	—	—
50 to 199 employees	3·8	5·5	5·7	4·2
200 to 999 employees	4·7	6·0	6·1	4·3
Over 1,000 employees	13·6	8·2	7·1	4·8

The evolution of the capitalist mode of production thus inevitably entails a *centralisation* and *concentration* of capital. The average size of enterprises increases uninterruptedly; a large number of small enterprises are beaten in the competitive struggle by a small number of big enterprises which command an increasing share of capital, labour, funds and production in entire branches of industry. A few large enterprises centralise means of production and a number of employees such as were not to be found previously except in dozens or even hundreds of manufactories added together.

In competitive struggle the large enterprises defeat the small ones. These latter produce at prices which are too high, they are unable to continue to dispose of their products at a profit, and they go bankrupt. In periods of crisis and economic depression, failure like this is the fate of hundreds and thousands of small enterprises. Thus, capitalist competition continues that *process of expropriation* with which the capitalist mode of production began. Instead of independent producers as the chief victims, however, it is now the capitalists themselves who have become the object of this process. *The history of capital is the*

*history of the destruction of the property of the majority for the benefit of the property of an ever smaller minority.**

What happens to the capitalist entrepreneurs who are crushed by competition? They lose their capital, either directly by bankruptcy or else by the taking over of their property, completely or partially, by the big capitalists. At best, the capitalists who are dispossessed in this way remain as managers, mere employees, of their enterprises. Otherwise, they become under-managers or technicians. If their enterprise was too small, and their connections with the business world were quickly destroyed, they may even become mere workers, in factory or office. This is the *proletarianisation*† of the middle classes, their transformation from owners of capital into mere owners of labour-power. This evolution is evidenced by the following table, which relates to the United States and West Germany:

EVOLUTION OF THE CLASS STRUCTURE‡ IN THE UNITED STATES, IN PERCENTAGES OF THE OCCUPIED POPULATION[80]

	1880	*1890*	*1900*	*1910*	*1920*
Employees of all kinds	62	65	67·9	71·9	73·9
Entrepreneurs of all kinds	36·9	33·8	30·8	26·3	23·5

	1930	*1939*	*1950*	*1960*	*March 1965*
Employees of all kinds	76	78·2	79·8	84·2	86·3
Entrepreneurs of all kinds	20·3	18·8	17·1	14·0	12·4

EVOLUTION OF THE CLASS STRUCTURE IN GERMANY, IN PERCENTAGES OF THE OCCUPIED POPULATION[81]

	All Germany				
	1882	*1895*	*1907*	*1925*	*1933*
Independent (incl. assistants belonging to the family)	48·2	39·1	35	31·2	20·0
Employees	57·2	60·9	65	68·8	70·1

		Territory of Federal Republic only	
	1939	*1950*	*1956*
Independent (incl. assistants belonging to the family)	28·6	26·4	24·8
Employees	71·4	73·6	75·2

* See figures in Chapters 7 and 12.

† This is the scientific meaning of this term, which does not necessarily imply impoverishment in the sense of a lowering of the standard of living.

‡ Strictly speaking, this formulation is not quite correct, as the category of "employees" includes a certain number of managers, engineers, higher executives, etc., who, regardless of their *mode of employment*, belong rather to the bourgeoisie by their way of life, their exact social function, etc.

In France, similarly, employees made up 47 per cent of the occupied population in 1906, 54·3 per cent in 1921, 57·6 per cent in 1931, and 65 per cent in 1953.

When the destruction of medium and small enterprises, especially those of the craft type, is not accompanied by an all-round industrial advance which creates new needs for labour-power, the former owners of means of production, dispossessed through competition, are not transformed into employees but simply thrown out of the production process. They are no longer proletarianised but are completely pauperised. This is what happened at the dawn of industrial capitalism in Western Europe, and later in the backward countries into which capitalist commodities penetrated. A phenomenon of this sort is constantly being repeated on a small scale.

In the United States, the silk industry underwent a remarkable boom during and after the First World War, centred on the small town of Paterson. When overproduction and then the appearance of rayon (synthetic silk) dealt a heavy blow to the silk industry, many workers put out of employment, who had been able to accumulate savings thanks to the high wages they had received in the preceding period, bought second-hand looms and became small entrepreneurs. From 1927 to 1940, however, more than 50 per cent of those enterprises worked continually at a loss. Incomes of six or seven dollars a week were not unusual for these "entrepreneurs".[82] As with peasants owning tiny plots of land, we see here a concealed impoverishment in which the "possession" of means of production conceals the fact that the income obtained is lower even than that of unemployed industrial workers. The "productivity" of this work is so low that this is a phenomenon of *under-employment*, of concealed unemployment.

However, the process of centralisation and concentration of capital is not accompanied by a proportionate disappearance of the middle classes. Many small and medium capitalists withdraw voluntarily from a branch of production when the competition of big enterprises becomes too dangerous, and endeavour to open up new branches. On the other hand, industrial concentration itself gives rise to new activities which are described as "independent". Giant factories surround themselves with numerous repair-shops. They pass on many orders for separate articles or specialised work to small enterprises which can handle this sort of work more profitably.

Finally, the tremendous growth of constant capital engenders a *new hierarchy* in the enterprise, inserted between the old foreman and the general manager: technicians, engineers, chief engineers, production managers, planners, sales chiefs and publicity chiefs, market research staffs, heads of research laboratories, and so on. These are the *new middle classes*, which come into being in this way and whose standard of living broadly corresponds to that of the old middle classes. These

new middle classes are distinguished, however, from the old middle bourgeoisie by the *fact that they are no longer owners of their means of production*, but mere employees who are separated from the proletariat in the social sense only by the level of their wages, their traditions, way of life and prejudices.

The tendency of the average rate of profit to fall

The equalisation of the average rate of profit modifies the sharing-out of surplus-value among the enterprises, in favour of the enterprises with the highest organic composition of capital. But if the average organic composition of capital increases for *all* enterprises, the average rate of profit falls, all other things being equal. If, for example, between one decade and the next, the value of annual production grows from 300 million c + 100 million v + 100 million s = £500 million, to 400 million c + 100 million v + 100 million s = 600 million, the increase in the organic composition of capital from 3 to 4 entails a fall in the rate of profit from $\frac{100}{400}$ = 25% to $\frac{100}{500}$ = 20%. "As a system accumulates more and more productive plant and equipment, the rate of return on new and existing capital becomes depressed."[83]

And increasing organic composition of capital, increase in dead labour as compared with living labour, is the basic tendency of the capitalist mode of production. *The tendency of the average rate of profit to fall* is thus a law of development of the capitalist mode of production.

Here are the rates of profit of American manufacturing industry for successive years.*

	Constant capital		*Wages and salaries*	*Profits*	*Rate of profit*
	Fixed	*Circulating*			%
1889	350	5,160	1,891	1,869	26·6
1899	512	6,386	2,259	1,876	20·5
1909	997	11,783	4,106	3,056	18.1
1919	2,990	36,229	12,374	8,371	16·2†[84]

Steindl gives the following figures showing the tendency for the pace of capital accumulation to slow down under classical capitalism:[85]

Formation of new business capital in percentages of existing business capital, during a decade:

		%			%
1869–1878	=	3·75	1909–1918	=	2·76
1879–1888	=	4·65	1919–1928	=	2·18
1889–1898	=	4·30	1929–1938	=	0·38
1899–1908	=	3·75			

* Calculated as follows: Value of product-value added = circulating constant capital. Depreciation = fixed constant capital. Value added − (wages + salaries + depreciation) = profit.

† For the evolution of the rate of profit in the epoch of monopoly, see Chapters 12 and 14.

We know that labour power both conserves value and creates new value. When we say that the rate of profit falls we mean that an increasing fraction of the annual product consists merely of the *maintenance* of the value of the existing stock of capital, while a decreasing fraction increases the value of this stock. This fact, established theoretically, is to be found empirically in the following statistics, given by Kuznets, of the annual percentage of American production of equipment which is not destined to replace to existing equipment but to *extend* it:

		%			%
1879–1888	=	57·2	1909–1918	=	43·1
1889–1898	=	57·9	1919–1928	=	36·6
1899–1908	=	54·1			

Kuznets also gives the following figures of the cost of depreciation of existing fixed capital, as a percentage of the gross formation of capital:

		%			%
1879–1888	=	39·7	1919–1928	=	62·4
1889–1898	=	43·0	1929–1938	=	86·7
1899–1908	=	46·5	1939–1948	=	67·8[86]
1909–1918	=	50·1			

However, the tendency of the rate of profit to fall does not work uniformly, from year to year or from decade to decade. Its operation is restricted by a series of factors which work in the opposite direction. *(a) Increase in the rate of surplus-value* = growth in the organic composition of capital means growth in the productivity of labour, which may mean increase in relative surplus-value, and so increase in the rate of surplus-value. If from one decade to another the total value of production grows from: 300 million c + 100 million v + 100 million s = 500 million, to 400 million c + 100 million v + 125 million s = 625 million, the rate of surplus value $\frac{s}{v}$ has grown from 100 to 125 per cent, and in spite of the increase in the organic composition of capital from 3 to 4 the rate of profit has remained the same: $\frac{100}{400} = 25\%$, $\frac{125}{500} = 25\%$.

An *equivalent* increase of the rate of surplus value and of the organic composition of capital is in the long run, however, impossible to achieve, because with the increase in the productivity of labour there often comes an extension of workers' needs and a corresponding increase in the value of labour-power, which in turn encourages the development of the labour movement, thus restricting the growth in the rate of surplus value. We must further mention that the increase in the rate of surplus value comes up against *absolute* limits (the

impossibility of reducing necessary labour to zero), whereas there is no limit to the increase in the organic composition of capital.

The breakdown theory (*Zusammenbruchstheorie*) is based ultimately on this incapacity to overcome, in the long run, the tendency of the rate of profit to fall, by way of increasing the rate of surplus value. This incapacity has become a burningly topical question in connection with automation. The inevitability of periodical crises, explained in Chapter 11, also contributes to it.

(b) Reduction in the price of constant capital: The organic composition of capital expresses not the ratio between the *material bulk* of the instruments of labour and the number of workers, but the ratio between the *value* of the means of production and the *price* of the labour power hired. If the over-all productivity of labour increases, the value of each individual commodity declines. This law applies to all commodities, including machinery and other means of production. The growth in the organic composition of capital also works in the direction of a lowering of the prices of machines, and so of the value of constant capital in relation to variable capital, and thus opposes the tendency of the rate of profit to fall.

If, however, all progress in productivity undoubtedly reduces the value of each unit of constant capital, this progress implies at the same time a considerable increase in the number of these units. The value of a machine falls, but the number of machines increases in a bigger proportion, and the value of the total mass of machines thus increases instead of remaining stationary. For example, in the United States the values of producer durables in relation to the national wealth increased from 7·4 per cent in 1900 to 8·3 per cent in 1910, 10 per cent in 1920, 9 per cent in 1930, 8·7 per cent in 1940, 10·9 per cent in 1950 and 11·9 per cent in 1955[87]

(c) The extension of the basis of capitalist production: Through foreign trade, capital brings in raw material and articles of primary necessity at cheaper cost, which reduces both the value of constant capital and that of labour-power, and increases both the rate of surplus-value and the rate of profit. The introducing of the capitalist mode of production into new branches or new countries, where at first a lower organic composition of capital prevails, also counters the fall in the rate of profit.

Nevertheless, the widening of the basis of capitalist production inevitably means an extension of exchange. In exchange for the commodities which the industrial countries import from the backward ones they export thither manufactured goods and capital which end by destroying the indigenous mode of production and introducing the capitalist mode of production. The capitalist mode of production, as it extends and becomes world-wide, reduces the sectors in which a higher rate of profit can be obtained. Though this expansion played

a big part throughout a long period in checking or halting the tendency of the rate of profit to fall, its efficacy decreases more and more and it may even produce the opposite effect when the backward countries, industrialised in their turn, compel the advanced countries to undertake a substantial increase in the organic composition of capital in order to stand up to their competition.

(d) Increasing the mass of surplus-value: The steady expansion in the sphere of operation of capitalism, the accumulation of capital, the growth in the number of wage-earners, imply a constant increase in the *mass* of surplus-value. When the fall in the average rate of profit is comparatively modest, this absolute increase is such as to "reconcile" the capitalist to the system. Indeed, the capitalist is not upset by the prospect of making "only" 10 per cent on a billion, instead of 12 per cent on 200 millions. The increase in the mass of profit from 24 to 100 million makes up for the slight fall in the rate of profit. The reduction in the time taken for circulating capital to circulate contributes to a special extent to the growth in the mass of surplus-value.

The value of a commodity under the capitalist mode of production takes the form $c + v + s$. The laws of development of the capitalist mode of production may be represented in the form of relations between the constituent terms of this formula:

(a) The growth of $\frac{c}{v}$ means growth in the organic composition of capital.

(b) The growth of $\frac{s}{v}$ means the growth in the rate of surplus value.

(c) The reduction of $\frac{s}{c + v}$ means fall in the average rate of profit.

But these three tendencies of development appear differently according to whether one considers them from the standpoint of their general historical significance in relation to the development of the productive forces, or else in relation to the *specific form* they assume under the capitalist mode of production.

The increase in the mass of instruments of labour set in motion by living labour in the process of production; the reduction in the part of the working day devoted to the production of mere means of subsistence (production of the necessary product); the reduction of the wealth produced each year as compared with the wealth gradually accumulated by society—these are the general indices of the progress of civilisation, of a high development of the productive forces, in any society at all, including a socialist society.

The specific form in which these tendencies appear under the capitalist order is the *antagonistic form*. The increase in the social surplus product in relation to the necessary product does not lead to a tremendous increase in well-being and comfort for society as a whole, but to an increase *in the surplus labour appropriated by the possessing*

classes, in a growth in the degree of exploitation of the working class. The decrease in the ratio between the new wealth created each year and accumulated social wealth does not mean that mankind can live more and more exclusively on this accumulated wealth, it does not mean a constant increase in leisure, but becomes, on the contrary, a periodical source of convulsions, crises and unemployment. The growth in the mass of dead labour in relation to living labour does not mean an ever-greater saving of human labour, but the creation of a vast industrial reserve army, under the pressure of which consumption by the producers remains restricted to the necessary product, and their physical effort is lengthened or intensified. This antagonistic form which is taken by the tendencies of development of the capitalist system is what makes its destruction inevitable.

The supreme contradiction of the capitalist system

All the contradictions of the capitalist mode of production can be summed up in one general and fundamental contradiction, that between *the effective socialisation of production* and the *private, capitalist form of appropriation.*

The socialisation of production under the capitalist system is the most important and most progressive effect of the generalisation of the capitalist mode of production. In place of the fragmentation of patriarchal, slave-owning or feudal society into thousands of little cells of production and consumption, each one independent of every other, with only rudimentary links (particularly exchange links) between them, there has come *the world-wide relationship between men.* The division of labour has become general and advanced not only in a single country but on a world scale. Nobody any longer produces first and foremost the use-values he needs for his own consumption. The work of each is indispensable to the survival of all, so that each can survive only thanks to the work of thousands and thousands of other men. Individual labour survives only as a tiny part of social labour. It is the objectively co-operative labour of all men that makes production under modern capitalism function, or keeps it going. This production is thus objectively socialised, drawing the whole of mankind into its orbit.

The socialisation of production under the capitalist order makes possible an immense development of the productive forces. The growth of constant capital, especially of the mass of machinery and equipment in industry and transport, has been possible only through an extreme development of the division of labour. This prodigious expansion of the productive forces is implicitly contained in the growth of the organic composition of capital, in the concentration of capital, in the increasing extension of the basis of the capitalist mode of production, which tends towards conquest of the entire world. It implies a no less

immense development of human needs, a first awareness of the possibility of an all-round development of every man.

But this socialisation of production which transforms the labour of all mankind into objectively co-operative labour is not regulated, directed, managed according to any conscious plan. It is governed by blind forces, the "laws of the market", in fact by the variations in the rate of profit and the working of the equalisation of the rate of profit, the particular form that the law of value takes in the capitalist system. This is why the totality of production, though objectively socialised, develops independently of the human needs it has itself aroused, and is urged onward only by the capitalists' thirst for profit.

The private form of appropriation makes profit the only aim and driving force of production. It causes the development of the productive forces to be uneven and spasmodic. Production develops by leaps and bounds, not in the sectors where the most urgent real needs are to be found, but rather in those where the highest profits can be achieved. The production of alcoholic drinks, of "comic books" and of drugs takes precedence over the struggle against air-pollution, the preservation of natural resources, and even the building of schools and hospitals.[88] In Britain today more money is spent on gambling than on the fight against cancer, poliomyelitis and arteriosclerosis . . . The private form of appropriation of the social surplus product, of surplus value, determines the *anarchy* of capitalist production. Underproduction in one branch regularly coincides with overproduction in another, until general overproduction and crisis bring periodical punishment for the misdeeds of this anarchy. Disequilibrium and disproportion between the different branches of production are the inevitable elements of this anarchy. The distribution of human labour between the different branches of production never corresponds exactly to the distribution of purchasing power for the products of these branches. When this disproportion becomes too extreme, it is resolved by a crisis, which leads to a new equilibrium, itself temporary and ephemeral.

The contradiction between the *de facto* socialisation of capitalist production and the private form of appropriation finds expression as a contradiction between the tendency to unlimited development of the productive forces and the narrow limits in which consumption remains confined. The capitalist mode of production is thus the first one in which production appears to be completely detached from consumption, in which production seems to have become an end in itself. But the periodic crises remind it harshly that production cannot, in the long run, be divorced completely from society's possibilities of effective consumption.

Free labour and alienated labour

The producer in a primitive society does not usually separate his productive activity, "labour", from his other human activities. Thus, this high degree of integration of his whole life is more an expression of the poverty of society and the extreme narrowness of his needs than a conscious effort towards the all-round development of all human potentialities. The tyranny to which he is subjected is that of the forces of nature. It implies a poor knowledge of the natural setting, a degrading subjection to magic, a primitive development of thought. But the effect of this degradation is greatly mitigated by the high level of social solidarity and co-operation. The integration of the individual with society is achieved in a comparatively harmonious way. When the natural setting is not too hostile, labour is combined with pleasure of body and mind. It satisfies needs both physical and social, aesthetic and moral.*

As the productive forces increase, mankind frees itself more and more completely from the tyranny of the forces of nature. It gets to know its natural setting and learns to change this in accordance with its own ends. It subjects these forces to which formerly it was itself doomed to be more or less passively subject. So begins the triumphal march of science and scientific techniques, which will make man the master of nature and the universe.

But mankind pays a heavy price for this emancipating progress. The transition from a society of absolute poverty to a society of relative scarcity is at the same time transition from a society harmoniously united to a society divided into classes. With the appearance of individual leisure for a minority of society there also appears the alienated time, the time devoted to slave labour, the unpaid labour provided for others by the majority of society. As man frees himself from the tyranny of natural forces he falls more and more under the tyranny of blind social forces, the tyranny of other men (slavery, serfdom) or the tyranny of his own products (petty commodity production and capitalist production).

The alienated nature of slave labour does not need to be explained. The slave and the serf are no longer masters of their lives and of the bulk of their time. Not only the free development of their personality but any development at all is closed to them by their social condition. But labour in capitalist society is also alienated labour, it too implies human alienation to an extreme degree.

This alienation appears primarily as a radical separation between labour and all non-"economic" human activities. The overwhelming majority of the citizens of a capitalist society work not because they like their trade, because they fulfil themselves in their work, because

* See, for example, the description of the *dókpwê*, communal labour in Dahomey.[89]

they regard it as a necessary and adequate condition for the development of their physical, intellectual and moral capacities. They work, on the contrary, *from necessity, in order to satisfy their human needs other than labour.* At the beginning of the capitalist system—as still today in a large part of the "third world"— these needs were reduced, moreover, to the almost animal level of subsistence and physical reproduction. As these needs grow bigger and as the duration of working time grows less, the contrast between "time lost" and "time regained" becomes all the more striking and acute.

Alienation is then expressed in the worker's total loss of control over his conditions of labour, over his instruments of labour, over the product of his labour. This loss of control becomes more marked precisely in proportion as the increase of relative surplus-value replaces the increase of absolute surplus-value, as the working day is shortened, but at the cost of a more and more inhuman intensification and mechanisation of this labour.

Shift work, which deprives the workers of the normal rhythm of the succession of day and night, the conveyor belt and semi-automation, the break-up of old skills, the generalisation of detail-work, are so many stages in this process of alienation. At the end of this process the worker is nothing but an insignificant link in two monstrous mechanisms, the machine in the literal sense, i.e. the instruments of labour that crush him,* and the social machine which crushes him no less with its orders, its hierarchy, its commands, its fines and its organised insecurity. With the crushing of the individual is associated the boredom caused by his mechanised work, a boredom which ends by sapping the vitality of the worker at the bench, and to which the office-workers too will be subject in proportion as office work becomes mechanised as well.†

Alienation is, finally, expressed by the all-round commercialisation and atomisation of capitalist society. Everything is bought and sold. The struggle of all against all implies the negation of the most fundamental and most characteristic of human motives: the protection of the weak, of the old and of children; group solidarity; the desire for co-operation and mutual help; love of one's neighbour. All the qualities, aspirations, potentialities of humanity are no longer realisable

* In both the literal (enormous increase in accidents at work) and the metaphorical sense of the word.

† "A hard-working semi-skilled operative learns, after twenty-five years on the job, that the 17-year-old kid next to him, who just quit high school to go to work, is making, within a few pennies, the same hourly wage as he is. And the repetitious arm movement he makes hour after hour is excruciatingly boring. His father, he recalls, was poor, but a craftsman who was proud of the barrels he made. Here the machine has all the brains, all the reasons for pride. Perhaps the rules also forbid him to talk to workers nearby, or to get a drink of water except at the break period."[90]

except by way of acquiring things or services on the market; an acquisition process which capitalism commercialises more and more, thereby levelling and mechanising it. Thus, the shortening of working time is accompanied much less by a growth in humanised and humanising individual leisure than by leisure which is increasingly commercialised and dehumanised.

Recently some Protestant clergymen in West Germany, following the example of the Catholic worker-priests, worked for several months in large factories. On the basis of this experience they have sketched in striking fashion the alienated nature of labour under capitalism:

"The attitude (of the workers) towards labour is usually negative, except for some craftsmen, for whom the skill they have acquired and the experience they are constantly obtaining still play a certain part. As for the rest, they regard work in the factory as a *necessary evil*. His job is the worker's 'enemy', to which he *has to submit* every day for a long stretch, with all that that implies: machines that he must serve; the hierarchy of the enterprise, from the foreman to the management, to which he has been *handed over*, without any possibility of discussion (joint management, i.e. the works council, plays practically no part in our enterprises); but also his fellow-workers, in so far as they themselves are only integral parts of that world which one joins *reluctantly* at the beginning of one's stint and which one leaves *as though escaping* at the end of it . . .

"*The time spent in the factory is regarded as a waste of one's life.*

". . . The mode and form of labour (whether exhausting physical work or merely the watching of mechanical processes) is not so important as its social status, which is likewise expressed, in the workplaces we have come to know, by *the placing of the worker under authority, as the mere object of decisions taken concerning him* . . .

"The worker is undoubtedly, in spite of the trade unions and the works councils, the weakest feature of our economic system: business fluctuations, temporary stoppages and crises find in him their first victim, threatening his job, whereas they can be absorbed without great human damage by the other factors in the production process. *The feeling of insecurity of livelihood* and of *total dependence on an arbitrary process* of evolution of our entrepreneurial economy is nowhere so high as in this social stratum . . . Without any doubt the urgently desirable change in the social consciousness of the workers is conceivable only in conjunction with a real change in their social situation."[91]* [Emphasis ours.]

The class struggle

Never since the division of society into classes has existed have men

* See the analyses, similar in all respects, of the position of the workers in France, in A. Andrieux and J. Lignon: *L'Ouvrier d'aujourd'hui.*

resigned themselves to the reign of social injustice under the pretext that this could be regarded as an inevitable stage in social progress. The producers have never accepted as normal or natural that the surplus product of their labour should be seized by the possessing classes, who thus obtain a monopoly of leisure and culture. Always and unceasingly they have revolted against this order of things. And unceasingly the most generous spirits among the possessing classes have themselves felt compelled to condemn social inequality and join the struggle of the exploited against exploitation. The history of mankind is nothing but a long succession of class struggles.

The dawn of class society was marked by slave revolts. Only the revolt led by Spartacus and the slave revolts in Sicily under Verres are widely known. About the same time, however, there was the revolt of 40,000 slaves working in the mines of Spain, the revolt of the slaves of Macedonia and Delos, and, a half-century later, the great revolt of the miners of Laurium, in Greece.[92] From the third century A.D. a vast uprising of slaves and impoverished peasants spread over the whole western part of the Roman Empire (the movement of the Bagaudae) and North Africa (the Donatist movement). The importance of the part played by these revolts in the collapse of the Roman Empire has usually been underestimated.[93] The spirit that animated them was clearly grasped by the Arab chronicler Abu Zakaria, who wrote as follows about the Donatists:

"They hate the masters and the rich, and when they meet a master riding in his chariot and surrounded by his slaves, they make him get down, put the slaves in the chariot, and oblige the master to run on foot. They boast that they have come to re-establish equality on earth, and they summon the slaves to liberty."[94]

The invasions of the Visigoths in the Byzantine Empire were likewise accompanied by slave revolts, notably those of the miners in Thrace.[95] Later (820–823) a new and terrible revolt broke out in the Byzantine Empire, helped by the poor, which the Emperor Michael II could only crush after three years of fighting.

In the same period, an army of black slaves used by the Arabs to drain the Shatt-el-Arab rose in revolt (868) and held out for fifteen years against the imperial armies. Again, when commercial and manufacturing capital revived slavery overseas in its most abject forms, there were many insurrections, such as that led by Soerapati, in Java (1690–1710), those of the Indians in Bolivia (1686, 1695, 1704, 1742, and 1767) and that of the Black Jacobins of Haiti.[96]

The peasants, crushed by labour-services or land-rent, themselves endeavoured many times to shake off the yoke of exploitation. The entire history of Antiquity—of Egypt, Judaea, Athens and Rome—is filled with peasant revolts against usury, indebtedness and the concentration of property. In the Persian Empire of the Sassanids the fifth

and sixth centuries A.D. show the movement of the Mazdakites, who demanded community of goods, abolition of all privileges and prohibition of the killing of any living thing. This is no doubt why historians in the service of the possessing classes call them "barbarians" and "degenerates".

Throughout Chinese history the reigning dynasties were overthrown by revolts of the oppressed peasants. The dynasties of Han and Ming were themselves dynasties established by peasant leaders, who at first strove to combat not only landed property but even usurer's and merchant capital as well.[97] The fourteenth century in Western Europe was marked by "jacqueries" in nearly every country: France, Britain, Flanders, Bohemia, Spain, etc. The sixteenth century saw the development of the great German peasants' war, with comparable social tendencies in the towns, where the boldest revolutionary ideas appeared with Thomas Münzer and the Anabaptists. The history of Japan in the seventeenth and eighteenth centuries was punctuated by a long series of peasant risings against the increased exploitation to which the peasants were subjected as a result of the generalisation of money economy. No less than 1,100 insurrections occurred between 1603 and 1853.[98]

Finally, the small craftsmen, their journeymen and their hirelings, the ancestors of the modern proletariat, rose up against both the lack of political rights in the great towns and their exploitation by merchant capital.* It was not only the craftsmen of the Flemish and Italian cities of the Middle Ages who waged such struggles, but also the craftsmen of the cities of the Islamic Empire, among whom the powerful international movement of the Carmathians had in the ninth century A.D. welded together all the progressive ideas of the age, and which was continued in insurrections by town guilds in Anatolia and Istanbul right down to the seventeenth century.[100] This movement even succeeded in establishing a communist state in Bahrein and the Yemen which survived for over a hundred years (from the eleventh to the twelfth century).

Why did all these movements fail in their attempt to abolish social inequality; either being defeated or else, if victorious, themselves reproducing social conditions similar to those against which they revolted?† Because material conditions were not yet ripe for abolishing social exploitation and inequality.

* The first workers' strike recorded by history was that of Egyptian workers who were working, about 1165 B.C., under Rameses III, at Dehr-el-Medina, on the west bank of the Nile, near Thebes.[99]

† One may quote in this connection the evolution of the Catholic monasteries in which community of goods was at first established, and that of the Czech city of Tabor. When this city was first set up, people had to give up all their possessions, depositing them in "public graves"; but petty commodity production reappeared a few years later.[101]

The absence of classes in man's pre-history is explained by the fact that the social product was there broadly equivalent to the necessary product. The division of society into classes corresponds to a development of the productive forces which already allows of the constitution of a certain surplus, but not yet enough to ensure for the whole of society the leisure needed to exercise functions of social accumulation. On the basis of this inadequate development of the productive forces, the reappearance of social inequality, of the division of society into classes, even where this division had been for a moment abolished, could not in the long run be avoided.

It is the capitalist mode of production that, by the extraordinary advance of the productive forces which it makes possible, creates for the first time in history the economic conditions needed for the abolition of class society altogether. The social surplus product would suffice to reduce extensively the working time of all men, which would ensure an advance of culture that would enable functions of accumulation (and of management) to be exercised by the whole of society. The conscious organisation of labour, already objectively socialised by capitalism, becomes an indispensable condition for a new all-round development of the productive forces.

The development of the capitalist mode of production does not create only the *economic* conditions for the abolition of class society. It likewise creates the *social* conditions. It produces a class which acquires a major interest in abolishing every form of private ownership of the means of production because it possesses none. This class at the same time gathers in its hands all the productive functions of modern society. Through its concentration in big factories it acquires by instinct and experience the conviction that it can defend its lot only by assembling its forces, by exercising its great qualities of *organisation, co-operation* and *solidarity*. To begin with, it uses these qualities to take from the employers a larger share of the new value it creates. It fights for a shorter working day and for higher wages. But soon it learns that this struggle can prove effective in the long run only on condition that the entire domination of Capital and its State is challenged.*

* In *The Town Labourer*, J. L. and B. Hammond describe graphically how in the nineteenth century the State was wholly at the service of Capital. In the areas of Caerphilly and Merthyr Tydfil the only magistrates were two iron-masters who had continually to sit in judgment [!] on their own workers. These same magistrates were responsible for applying the laws which forbade [!] them to employ the truck system. The same writers describe the movements of troops in industrial areas which "came to resemble a country under military occupation . . . ; soldiers were moved about in accordance with fluctuations in wages or employment."[102]

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CHAPTER SIX

TRADE

Trade, outcome of uneven economic development

IN a society based mainly on production of use-values, merchants' profit arises from buying commodities below their value and selling them above their value. Consequently, at the beginning, trade could not develop between peoples living at a more or less identical level of economic development. In such a case, the approximate amount of labour-time needed to produce the commodities being exchanged is known in both countries. Neither buyers nor sellers would let themselves be drawn into making exchanges which would be extremely unfavourable to them.* Only exceptional circumstances, with the occurrence of sudden shortages of currently needed consumer goods or indispensable raw materials, enable substantial profits to be made through trade under these conditions.

Trade, however, with peoples who are at a lower economic level of development offers ideal conditions for the making of such profits. Raw materials or provisions (metals, timber, wheat, fish, wine) can be bought from them cheap, and finished craft products (pottery, metal utensils, ornaments, textile goods) can be sold them for more than their value. In the uneven economic development between peoples is to be found the origin of the expansion of trade starting with the period marked by the metallurgical revolution and the beginnings of civilisation: *

". . . Inequality and diversity of resources between different societies which are neighbours or which can communicate with each other, the permanent conditions for all exchange, . . . are to be found everywhere on the world's surface, however far back prehistorians go in studying and learning about our ancestors."[1]

Empirically-observed data fully confirm this view. In the first place, they confirm that trade appears in every primitive society in the form of the *foreign trader* come from a more advanced society. The first traders mentioned in the Egyptian sources are foreigners.[2] In ancient Greece, in the archaic period, foreign merchants were the first to appear in the young cities.[3] In the most ancient texts of the *Avesta*, the holy book of Iran, the merchants are foreigners who bring luxury goods

* See Chapters 2 and 3.

for the king and the nobles.[4] In the *Rig-Veda*, the oldest written document of Hindu civilisation, the merchants are foreigners (*pani*) travelling in caravans.[5] Hellenised foreigners were the first traders in Rome.[6] In Byzantium, large-scale trade was at first in the hands of Syrians, Jews and Orientals.[7] In the Islamic empire, the first traders were Christians, Jews and Zoroastrians.[8] Jews and Syrians were likewise the first traders in the Western European Middle Ages,[9] while in the same period the Koreans were the first to introduce trade into Japan.[10] In China, from the Tang to the Ming dynasty, foreigners, principally Indians and Moslems, controlled all foreign trade. The predominance of German traders in Scandinavia, Jewish traders in Poland, Hungary and Rumania, Armenian traders in the Turkish empire in Asia, Arab traders in East Africa, Chinese traders in South-East Asia, continued for centuries this initial phase of large scale trade.

On the other hand, empirically-observed data underline how this same law of uneven economic development implies rapid reversals of the currents of trade as soon as a people acquires the comparatively simple craft technique of petty commodity society, in circumstances where the absence of expensive industrial installations makes it easy to transfer both techniques and technicians. The *metoikoi* from Asia Minor were the first traders in mainland Greece, but soon the Greek colonies came to monopolise trade in Asia Minor, down to the time when, in the Hellenistic epoch, Asia Minor again took its revenge on Greece. Jews, Christians and Persians were the first traders in the Islamic empire; but, soon, Arab traders were playing the chief part in trade in Europe, the Middle East and Persia. In the fifth century A.D. Indian merchants dominated trade in the Arabian Sea; a few centuries later, Arab traders were dominating trade in India;[11] then, under the Mogul Empire, in the seventeenth century, Indian and Persian traders again pushed back the Arab merchants. Jews and Syrians from Byzantium monopolised Italy's large-scale trade in the early Middle Ages; from the eleventh century onward, Venetians and Genoese conquered the dominant place in trade in Byzantium itself.

The history of the Roman empire consists entirely of sharp swings like this. In the second and first centuries B.C., the Roman conquest and the trade which followed in its wake had destroyed the economic preponderance of Asia Minor which had been established since the age of Alexander. But from the first century A.D., Roman trade surrendered the East to the new stratum of Syrian merchants, and withdrew towards Gaul—which, from the second century, pushed back Roman trade in its turn, and shared with the Syrians economic predominance throughout the Empire.[12]

Production and realisation of surplus-value

In the pre-capitalist modes of production, merchant capital is the predominant form of capital. It embodies money economy coming to birth in the midst of an economy essentially based on the production of use values. It makes its appearance in the risky dual form of large scale international trade and local peddling. The more petty commodity production develops, the more producers themselves sell their goods on the market, and no room is left for professional trade except outside this normal circulation of goods.

But the union of production and trade presents technical problems that can be solved only within a restricted framework. The craftsman who himself takes his products to the market has to stop producing while he is travelling; this is why, in a petty commodity society, markets are usually held on holidays. Discussing with Malay fishermen, Raymond Firth noted that as a rule they do not engage in trade on a working day. It is only when not going fishing, for one reason or another, that "one buys fish to sell".[13] To facilitate the petty producer-merchants' journeys to the markets, the Chorti Indians have adopted "the custom of providing food, a bed, and pine torches to anyone, even strangers, who may request them. The giver does not expect to be paid but in turn may request the same hospitality in the future when he needs it . . ."[14] All these customs are effective only if the distance between the place of production and the market is not too big. When the distance increases, the producer finds it too much of a burden to carry his products to the market himself. The craftsmen of Nuremburg in the Middle Ages brought their goods as far as the Frankfurt Fair; but for more distant centres they handed over their products to professional traders.[15]

Professional trade thus appears as the result of a division of labour which spares the producers the losses they would have suffered by interrupting production in order to sell their products directly.[16] Professor Jacquemyns has worked out these losses in the case of the Flemish linen-weavers of the first half of the nineteenth century, who had to go and buy raw material for themselves, in small quantities, in the neighbouring markets, and then to sell their fabric, piece by piece, in these same markets. He estimates them at one-fifth of their small incomes.[17]

Professor Ashton arrives at even more definite conclusions when he studies the situation in the British textile industry in the eighteenth century:

"Generally the [textile] worker had to do his own fetching and carrying [of the products he needed] . . . On the roads of the North large numbers of weavers were to be seen bearing yarn in packs on their backs, or heavy rolls of cloth under their arms. The distances covered were often as great as most men would care to traverse in a

day . . . It is said that in the hosiery trade of the east Midlands as much as two and a half days a week might be taken up in getting orders and material, returning finished work, and collecting wages."[18]

Observing a community based on petty commodity production, Professor Sol Tax notes that the producers calculate, in the literal meaning of the expression, the *labour-cost* of the direct selling of their goods to possible customers, and prefer to sell to traders only when the *saving in labour-time* is a real one (when the production which could be carried out during this time lost in selling is worth more than the trader's profit):

"In Panajachel, where merchants come to the farm and bargain for beds of onions even before they are harvested, the farmer calculates his chances of getting more by harvesting the onions, taking them to market, and so selling them at wholesale or retail. In doing so he calculates the value of his time . . ."[19]

The problem arises in the same way when industrial capital takes the place of the independent petty producer, and commercial capital replaces the old merchant. When the production of commodities is completed, the industrial capitalist already possesses the surplus-value produced by his workers. But this surplus-value exists in a particular form; it is still crystallised in commodities, just as the capital advanced by the industrialist is, too. The capitalist can neither reconstitute this capital nor appropriate the surplus-value so long as they retain this form of existence. He must transform them into money. To realise the surplus-value he must sell the commodities produced. But the industrialist does not work for definite customers (except when he carries out orders for the "ultimate consumer"); he works for an anonymous market.

Every time that a production cycle is completed, he would thus have to stop work at the factory, sell his commodities in order to recover his outlay, and only then resume production. By buying what the industrialist produces, the traders relieve him of the trouble of going himself to look for the consumer. They save him the losses and charges involved in interrupting production until the commodities have reached their destination. They, so to speak, advance him the money-capital that allows him to carry on producing without any interruption.

But the traders, who advance to the industrialists the funds they need to reconstitute their capital and realise their surplus-value, must in their turn quickly sell the goods thus bought, so as to begin the operation anew as soon as possible. As the capitalist mode of production spread and commodity production became general, towns and villages were covered with an ever denser network of wholesale and retail shops. Just as the expansion of the luxury trade in the Middle Ages was characterised by the transformation of travelling merchants into

sedentary merchants,[20] in the same way the expansion of trade in products of primary necessity, at the dawn of industrial capitalism, was marked by the transformation of the little itinerant hawker into a retailer permanently stationed in the village.[21]*

In the Middle Ages, wholesale and retail trade were not separated so far as products intended for the local market were concerned, and wholesale trade was often completely absent. Specialised retailers begin only with the *mercers*; there were 70 in the whole of France in 1292, 200 in 1570 and 2,800 in 1642.[23] It was after the commercial revolution that the separation of wholesale from retail trade took place as regards luxury products, the big colonial companies keeping only the wholesale trade for themselves.

The industrial capitalist does not only want to *realise* his surplus-value. He further wishes to *capitalise* it, to transform into machines, raw material and wages all that part of it which he does not consume unproductively to meet his own needs. The capitalisation of surplus-value thus itself implies a circulation of commodities in which the industrialist, instead of being a seller, appears as a buyer. In this capacity he is also interested in reducing to the utmost the period of circulation of machinery and raw materials, the waiting period between orders and deliveries. Commercial capital thus does him the twofold service of reducing the circulation-time of his own commodities and also that of the commodities he wishes to buy.

Annual amount of surplus-value and annual rate of profit

The small craftsman who avoids the expenses of waiting and not producing to which he is exposed if he sells the products of his labour himself, thus realises a gain a part of which it is to his interest to hand over to the merchant. The industrial capitalist knows no other gains than the surplus-value produced by his labour-force. Does the reduction in the circulation-periods of the goods he sells and those that he buys increase the amount of surplus-value produced by the workers?

From the standpoint of its circulation, industrial capital comprises two parts. One part of this capital, called *fixed capital*, consists of buildings and machinery which are not replaced until after the lapse of a fairly long period, after a number of production cycles. The value

* In Eastern Europe, in the Balkans and in Russia, these travelling retailers were still to be met right down to the beginning of the twentieth century, together with travelling craftsmen who themselves sold the products of their labour. In the under-developed countries they may still be encountered today, and even in the advanced countries they have not completely disappeared. The *White Book* (1953) of the Belgian Ministry of Economic Affairs shows that the number of travelling merchants who sell from door to door is quite high in the Flemish areas, where the peasants live scattered about the countryside.[22]

of this capital, advanced all at one go by the industrialist, is reconstituted—amortised, or depreciated—little by little. At the end of each production cycle, when the goods produced have been sold, a mere fraction of this fixed capital has been reconstituted. The period needed for reconstituting the whole of this fixed capital, called the rotation period of fixed capital, thus comprises a number of production cycles.

It is otherwise with *circulating capital*, that is, the part of constant capital which consists of raw material and auxiliary products, together with variable capital, the wages advanced by the capitalist. Circulating capital has to be advanced at the beginning of each production cycle. But as soon as the goods produced during this cycle have been sold, the capitalist is back in possession of this circulating capital, and can recommence a fresh production cycle. The rotation period of circulating capital thus breaks down into a production cycle of commodities and a circulation period of these same commodities. Substantially reducing the circulation period of commodities means reducing the rotation period of circulating capital and thus enabling a larger number of production cycles to be accomplished in a given period of time—say, a year.

Let us suppose that in a cotton mill each rotation period of circulating capital comprises two months; one month to produce a given amount of cotton cloth and one month to sell it and buy a fresh stock of raw material. There will thus be six production cycles in a year. By reducing from a month to a week the period needed for selling the cotton goods and buying fresh raw material, the rotation period of circulating capital is reduced to 5·3 weeks, and there will then be ten cycles a year instead of six.

Now, each production cycle brings in the same amount of surplus-value, provided that the capital and the rate of surplus-value remain the same. Increasing the number of production cycles accomplished in one year means increasing the total amount of surplus-value produced in that year. Reducing the circulation time of commodities is thus not only a way of realising surplus-value *more quickly*, it is also a way of *increasing the amount*.

"The quicker the rotation of money-capital in the enterprise the higher is its profitability (its annual rate of profit)."[24]

From the standpoint of the value of the commodities there is no change resulting from the reduction in the rotation period of circulating capital. So long as the production cycle of commodities is not changed, the value of the commodities remains the same. But it is otherwise with the rate of profit on the capital. This rate is not calculated in relation to the production cycle but to the fiscal year. Suppose that the capitalist has installations valued at 1,000 million francs, one per cent of which is depreciated in each production cycle. Further, sup-

pose that in each cycle he has to advance 20 millions, 10 millions to buy raw materials and 10 millions to pay his workers' wages. The value of the production in each cycle will thus emerge as follows, the rate of surplus-value being 100 per cent:

$$20 \text{ millions } c + 10 \text{ millions } v + 10 \text{ millions } s = 40 \text{ millions.}$$

The value of a year's production, after six production cycles, will thus be 240 millions. But when he calculates his annual rate of profit the capitalist does not compare his profit with his *turnover* but rather with his *capital actually expended*: 6 per cent of his fixed capital, i.e. 60 millions, plus his circulating capital of 20 millions, making a total of 80 millions. And as each cycle has brought him 10 millions in profit, his annual rate of profit will be $\frac{60}{80}$, or 75 per cent. If now the number of production cycles in a year is increased from 6 to 10, the capital expended every year increases to ten times 10 million of fixed capital, i.e. 100 millions, plus 20 millions of circulating capital, making 120 millions. The profit will rise to ten times 10 millions, or 100 millions. The annual rate of profit will thus increase to $\frac{100}{120}$, or 83·3 per cent as compared with the previous 75 per cent.

Reducing the circulation period of commodities thus makes it possible to increase the annual rate of profit. Uninterrupted production is an important form of capitalist *rationalisation*; it effectively counters the tendency of the average rate of profit to fall. Japanese manufacturing industry has accomplished a significant rationalisation of this kind since the defeat of 1945 and the American occupation, in order to make up for the loss of the Chinese and Korean markets and the increase in labour-costs (the fall in the rate of surplus-value). The number of rotation periods in a half-year for the whole of the capital invested in Japanese industry (except mining and transport) has increased from 0·66 in the first half of 1936 to 1·54 in the first half of 1950 and 1·84 in the second half of 1951. Whereas, twenty-five years ago, 40 weeks had to pass before the industrial capitalists as a whole had recovered the capital they had advanced, today only 14 weeks are needed.[25]

In order to reduce to the utmost the circulation-time of commodities, this network of shops and businesses is complemented by a dense network of roads, canals and railways. Capital is not merely athirst for surplus-value; it is, further, obsessed with the need to reduce to the utmost the rotation period of circulating capital. This reduction makes it possible *continually to transform circulating capital into fixed capital*, reducing the former in comparison with the latter. This is the very essence of what is called the industrial revolution.[26]

Commercial capital and commercial profit

It is very much to the interest of the industrial entrepreneur that the circulation period of commodities should be reduced as much as possible. This is why he hands over the greater part of all the operations in the distributive sphere (transport, storage, selling and buying at the source, advertisement, etc.) to a specialised branch of capital, commercial capital. For this specialisation to occur, however, it is necessary that capital invested in the sphere of distribution should bring the same rate of profit as the total capital invested in industry. Since commercial businesses need much smaller initial outlay than large-scale industrial concerns, there is much quicker fluctuation as regards entries into and and exits from the sphere of distribution than is the case with that of production. A commercial rate of profit higher than the rate of profit in industry would lead to a flow of capital into trade, a flow which would lower the rate of profit, owing to the increased competition. A rate of profit in trade lower than the industrial rate would lead to an ebbing of capital from the distributive into the productive sphere, an intensification of industrial competition and a corresponding fall in the industrial rate of profit.

Commercial capital thus participates in the general share-out of surplus-value, but without itself producing any part of it. The total amount of surplus-value produced always results exclusively from *production* of commodities, only from the incorporation of unpaid labour in these commodities while they are being produced. Though itself not producing surplus-value, commercial capital shares in the division of the total surplus-value, on an equal footing with industrial capital, because by reducing the circulation-time of commodities it helps the industrialists to increase the total amount and the annual rate of surplus-value. This applies to each branch of commercial capital: wholesale, semi-wholesale, and retail. Commercial profit is thus proportional to the capital invested in trade, on the same basis as industrial profit. Owing to the equalisation of the rate of profit, it constitutes a fraction of the total amount of surplus-value in proportion to that fraction of total social capital constituted by the capital which brings it in.

Suppose that a country's total production is worth 900 billion francs, of which 800 billion represent capital (constant and variable) conserved by labour-power and 100 billion represent surplus-value produced by it. Suppose that commercial capital in this country amounts to 200 billion francs, made up of 100 billion in wholesale trade, 40 billion in semi-wholesale trade and 60 billion in retail trade. The average rate of profit will be $\frac{100}{1,000}$, or 10 per cent. The industrialists will sell the commodities produced to the wholesalers for 880 billion francs, making the average rate of profit, 10 per cent. The wholesalers will sell these commodities to the semi-wholesale traders for 890 billion, so making

10 billion profit, or 10 per cent on their capital of 100 billion. The semi-wholesale traders will re-sell them to the retailers for 894 billion, making a profit of 4 billion, i.e. 10 per cent on their capital of 40 billion. Finally, the retailers will sell the goods to the consumers for 900 billion, making a profit of 6 billion—10 per cent on their capital of 60 billion. At the conclusion of these successive sales, the goods are sold at their exact value: 900 billion francs. No new value has been created in the course of their circulation. Each unit of capital has realised the same average profit, 10 per cent.

It could be claimed that, if commercial capital had not intervened, industrial capital would have made a higher profit, namely, 12·5 per cent. But this would mean forgetting that the total amount of surplus-value, 100 billion, would have been less without the reduction in the circulation-time of commodities which commercial capital ensured, or, what comes to the same thing, that industrial capital would have had to operate with a larger quantity of money-capital, thrown into the production process as the latter went forward continuously, before the commodities of the preceding cycle had been sold to the consumers. In the last analysis, nobody has suffered in the total operation carried out.

In practice, such an *absolute* identity of rates of profit in the different branches of trade and between trade and industry is naturally not found to exist. The variations in commercial profit are many, depending largely on the actual stage of the industrial cycle. In the phases of economic recovery and boom, when prices are rising quickly, stocks can be realised and disposed of with ease, demand exceeds supply, and traders make super-profits in comparison with industry. At such moments, the number of traders rapidly increases. As trade necessitates very much smaller advances of constant capital than industry, many small capitalists can appear, to try their luck in a period of general euphoria. A phenomenon like this was seen in Western Europe after 1945, and in West Germany after the currency reform of summer 1948. But, generally speaking, the rate of commercial profit cannot vary for long from the average rate of profit; otherwise, the industrialists would themselves start to expand their own organisations for direct sale to the public.

Contrariwise, on the eve of and during periods of crisis and depression, the traders are the first to be hit by the fall in sales. Possessing smaller reserves than the big industrialists, and obtaining bank credit less easily, they will be forced to get rid of their stocks at any price, that is, to sell at a loss. The commercial rate of profit then falls below the industrial rate of profit. Through conjunctural variations the equalisation of the rate of profit in trade and in industry becomes effective.

These conjunctural contractions and expansions in trade can be illustrated by the following figures: in 1929, a year of prosperity, the turnover of the retail shops in the U.S.A. represented 61·3 per cent of the total expenditure of the consumers. In 1933, a year of crisis, it represented no more than 49 per cent. In 1939 it rose to 62·9 per cent, and reached 72·9 per cent in 1945, a boom year.[27]

Commercial capital and labour-power engaged in distribution

At first sight it would seem that commercial capital passes through the same metamorphoses as industrial capital. The large-scale trader launches his enterprise by investing initially a certain amount of money-capital in the form of *fixed capital* (buildings for shops, depots, warehouses) and *circulating capital* (stocks of goods and wages for labour). It would even be possible to talk of the "organic composition" of his capital, since, just as with the industrialist, his fixed and circulating capital have very different rotation-periods.

But there the apparent parallel ends. In reality, the "variable capital" of the trader—the capital needed for the purchase of the labour-power employed in distribution—is not variable at all, since it produces no new value, no surplus-value. The labour-power bought by the commercial capitalist merely enables him to participate in the general share-out of the surplus-value produced by the productive workers.

The concepts of productive and unproductive labour from the standpoint of *production of new value* must not be confused with the concepts of productive and unproductive labour from the standpoint of the general interests of society. When they produce dum-dum bullets, opium or pornographic novels, workers create new value, since these commodities, finding as they do buyers on the market, possess a use-value which enables them to realise their exchange-value. But from the standpoint of the general interests of human society, these workers have done work which is absolutely useless, and even harmful. By recording the arrival and departure of goods in a big shop, or by enabling consumers to choose between different examples of a given commodity, workers employed in the sphere of trade do work which is useful and productive from the standpoint of society's general interests—without, for all that, creating any new value.

Nevertheless, the line separating labour which produces new value and labour which does not is hard to draw. In general, one can say that all labour which creates, modifies or conserves use-values or which is *technically indispensable* for realising them is productive labour, that is, it increases their exchange-value. In this category belong not only the labour of industrial production properly so called, but also

the labour of storing, handling and transport without which the use-values cannot be consumed.*

It goes without saying that this does not apply to the storing of goods in the traders' depots, which results from speculation, non-sale, competition, or the trader's mistakes in his estimation of the market. In this case, not only does the commodity not increase in value, it even loses value, because the storage period usually implies a degree of deterioration (real or moral). Similarly the commercial packing of most commodities adds nothing to their value; it represents overhead costs of distribution, included in the outlay of commercial capital on which the latter expects to realise its average profit. But this does not apply to the containers for liquids (milk, syrup, preserved fruit, jam of all kinds) without which these commodities would not reach their consumers. Here it is again a matter of costs which are indispensable for realising the use-value of a commodity, and which therefore add to the value, the price of production, of the latter. Often, these costs actually make up the largest element in the price.

From the trader's point of view, all these outlays, whether used for buying goods or for hiring labour or for renting premises, represent capital on which he has to realise the average profit. The industrialist's position is not the same. He regards as indispensable only those outlays by the traders which make it possible to realise the value of his goods in advance. All the rest constitutes, in his view, extra and useless expense, an increase in distribution charges of which he complains, since it increases the amount of capital which will participate in the share-out of the surplus-value created by his workers. Under the influence of industrial capital, political economy distinguishes the trader's "capital", needed for the purchase of goods, from his "overheads", needed for buying labour, renting shops, etc., "overheads" which are not very flexible and which "uselessly" enhance the price of goods.

It must be added that the "organic composition of capital" is much lower in trade than in industry, and that funds for fixed investments are often lacking. In the United States, insurance companies and building societies often buy sites, build shops on them and then let these to retailers.[29]

The concentration of commercial capital

Like industrial capital, commercial capital is subject to the fundamental tendency towards concentration. In periods of crisis and intensified competition, the big shops which have better reserves and substantial credit resist the blows of bad luck better than the small shop-

* It is interesting to observe that, six centuries before Marx, St. Thomas Aquinas laid down essentially the same distinction between these two forms of "commercial" labour—the one productive and the other not.[28]

keepers who are really working for a modest wage. Similarly, in periods of boom, large-scale traders are able to invest larger amounts, buy bigger stocks of goods and profit to a larger extent from the possibility of realising super-profits. The big shops can sell cheaper because they buy as wholesalers, and are in a position to cut down to a considerable extent the retail profit margin which is added to the wholesale price of commodities where the small shopkeepers are concerned.

"Brokers' fees, wholesalers' commissions, salesmen's salaries, advertising expenditures—all are partially chargeable to the efforts of sellers and manufacturers to find retail outlets for their goods . . . This is the key to much, if not most, of the advantage which the grocery chains have over the independent retailer-wholesaler system. When the function of wholesaling is integrated with that of retailing, it is no longer necessary to 'sell' the retail store."[30]

Other advantages consist in the possibility of using more modern and effective equipment, and of profiting immediately from the creation of new needs for expensive products, in being able to site shops more conveniently, to specialise the staff, standardise goods, rationalise services, and so on.[31] The big shops also received enormous free subsidies for advertisement purposes from the big industrial concerns. For the year 1934 the American "Atlantic and Pacific" chain stores received 6 million dollars for "advertising charges" and 2 million dollars for "advertising commissions", despite the fact that their actual advertising costs did not exceed 6 million dollars![32]

The concentration of capital resulting from commercial competition has taken a variety of forms:

(*a*) *The department stores* which first developed in Paris, through the extension of what were called "novelty" shops (1826: foundation of *La Belle Jardinière*), and then spread in the second half of the nineteenth century throughout all the capitalist countries. In 1852, foundation of the *Bon Marché* in Paris; about 1860, foundation of Whiteley's and Peter Robinson's, then of Selfridge's and Harrods, in Britain; about the same time, foundation of R.H. Macy's in New York (1858), of Marshall Fields in Chicago and of Wanamaker in Philadelphia (1861), in the U.S.A.; in 1881, foundation of Karstadt, and in 1882, of Tietz, in Germany; and so on. Department stores profit especially from an increase in turnover proportionally greater than the increase in capital outlay.[33]

(*b*) *The one-price stores* began in the United States, where Woolworth's was established in 1879. About 1910 a branch of Woolworth's was opened in Britain, about 1925 these one-price stores spread in France and Germany, and in the following decade they spread all over Europe. These stores reduce to the utmost their overheads—less packing, no specialised staff for paying invoices, no delivery to customers' homes, etc.—are able to turn over their capital much more rapidly

(8·4 times a year, compared with 3 or 4 times a year in the French department stores in 1938), and thus realise a higher annual rate of profit.[34]

(*c*) *The chain stores* are the most characteristic form of concentration of commercial capital. They enable the range of operations to be extended considerably without any increase in the amount of capital tied up in fixed installations. The increase in the rate of profit results in their case mainly from buying cheaper, because on a large scale, and from saving in administration charges.[35]*

The chain stores, which have developed strongly from the end of the last century onwards, have succeeded in absorbing a considerable share of all trade.

In France in 1906 there were 22, with 1,792 branches, in the food sector. In 1936 there were already 120, with over 22,000 branches, or 16 per cent of all the food shops in France.

In Britain the number of chain store firms and the number of their branches has steadily increased since the last quarter of the nineteenth century:

	Number of firms with more than ten branches	*Number of branches*
1875	29	978
1880	48	1,564
1885	88	2,787
1890	135	4,671
1895	201	7,807
1900	257	11,654
1905	322	15,242
1910	395	19,852
1915	433	22,755
1920	471	24,713
1925	552	29,628
1930	633	35,894
1935	668	40,087
1939	680	44,487
1950	638	44,800[37]

Since then, these firms have themselves undergone the process of concentration: their number has declined while the number of branches has gone on increasing.†

* Galbraith, Holton and others point out that in Puerto Rico the turnover per employee increases from 254 dollars a month to 466; 724; 1,061; 1,485 and 1,901 as one proceeds from shops with a monthly turnover of less than 500 dollars to those with one of 500 to 1,000, 1,000 to 2,000, 2,000 to 4,000, 4,000 to 10,000 and 10,000 to 40,000.[36]

† In 1880 there was only one firm which had more than 200 branches; in 1900 there were already 11, in 1920 there were 21, and in 1950 there were 40. The first firm with more than 500 branches had appeared by 1890. In 1910 there were two firms with over 1,000 branches, and in 1950 five firms with over 1,000 (9,695 branches altogether).[38]

In all, the share of chain stores in British retail trade rose from 3 to 4·5 per cent in 1900 and 7 to 10 per cent in 1920, to 14 to 17 per cent in 1935, and 18 to 20·5 per cent in 1950. For certain products, however, this proportion is very much bigger, notably for clothes and footwear, in which it rose from 3·5 to 5 per cent in 1900, to 11·5 to 14 per cent in 1925 and 27 to 30·5 per cent in 1950.[39]

In the United States the chain stores, the most powerful of which is the Atlantic and Pacific Tea Company trust, founded in 1859, accounted in 1929 for 20·8 per cent of the total turnover of retail trade; this percentage rose to 22·7 per cent in 1939 and 30·7 per cent in 1954.[40] The number of branches increased from 8,000 in 1914 to 105,000 in 1950.

We also find in the commercial sector the classical indices of concentration of capital. The number of wage-earners employed in the big shops has increased as compared with the number employed in the small shops. In France the number of wage-earners employed in trading establishments with a staff of more than ten increased from 268,187 in 1906 to 765,293 in 1931, whereas the number of establishments with not more than ten only increased from 517,650 to 631,796. Small and medium shops accounted in 1906 for 66 per cent of all commercial wage-earners, but in 1931 for only 45 per cent.[41] In 1958, 23 per cent of commercial employees were working in enterprises with more than 100 employees—that is, in 0·33 per cent of the total number of shops!

In Germany, commercial enterprises employing more than 50 wage-earners embraced in 1882 2·5 per cent of the total number of commercial employees, in 1895 3·2 per cent, in 1907 8·9 per cent, and in 1925 14·5 per cent.

The turnover of a small number of big stores is equal to that of a very large number of small shops. The census of distribution carried out in England in 1950 showed that in the food sector the 255 largest concerns had a joint turnover of £40 million a year, which was the same as that of 27,000 small shops; 75 per cent of the enterprises accounted for only 35 per cent of the total turnover.[42]

In West Germany, taking retail trade as a whole, 76·7 per cent of small shops (those with an annual turnover less than 100,000 DM) accounted in 1956 for only 22 per cent of the total trade turnover. The 4,447 large or medium-sized firms, 0·85 per cent of the total number of retailers, were responsible for 35 per cent of the total turnover.[43] The tendency towards concentration has been rapid since 1950. It is estimated that in Hanover the share of the big stores in the food trade has risen from 16·2 per cent in 1951 to 19·4 per cent in 1952, 23·6 per cent in 1953, 27·1 per cent in 1954 and 28·6 per cent in 1955.[44]

In the United States in 1954, 65 per cent of the retail shops accounted

for only 17·5 per cent of the turnover. One per cent of the retailers (with an annual turnover exceeding a million dollars) accounted for 26 per cent of the total turnover. Among the food shops, 6 per cent of the total, the supermarkets, accounted in 1955 for 60 per cent of the turnover, while the 80 per cent of small shops had only 13·9 per cent of it.[45]

Finally, in Britain, the share of the small retailers in the total amount of retail trade has steadily fallen: from 86·5 to 90 per cent in 1900 to 81·5 to 85·5 per cent in 1910, 77 to 82·5 per cent in 1920, 76 to 80 per cent in 1925, 71 to 76 per cent in 1930, 63·5 to 67·5 per cent in 1939, and 61·5 to 67·5 per cent in 1950.[46]

Though commercial concentration has made enormous progress, especially in this century, the obstacles to such concentration, and especially to complete domination by the big stores, are much greater than in the sphere of production. We have already noted that the small amount of money needed to start a small trading business makes possible the appearance from time to time of new shops, opened by former peasants, craftsmen, or even skilled workers, especially in periods of boom. Sometimes this small-scale trade can be carried on with a tiny return that does not even cover the wages of a worker; the wife, or the pensioned relatives, of a worker seek a modest extra source of income in this field.

Confronted with this tiny profit, the competition of the big store loses its effectiveness, since the use of machines cannot spread in this branch of the economy as it can in industry, to replace human labour-power:

"The highly competitive conditions which prevail in these industries [i.e. the wholesale and retail trades] and the small amount of money which suffices to set up a store result in a rapid influx of new enterprises who just as rapidly drop out again but who have meanwhile operated at a loss, have conducted an inefficient business, and thus contributed toward keeping down the level of productivity in the industry as a whole . . . Some of the persons absorbed must . . . be regarded as having assumed a status of disguised unemployment, judging from the higher rates of mortality of establishments engaged in retail trade and the incomes of large sections of the small businessmen."[47]

The comparative ease of entry into this "capitalist" branch is obviously linked with a frightful mortality rate among the enterprises concerned. Between 1944 and 1945, 21·7 per cent of all the retail shops, 28·9 per cent of all the cinemas and other places of entertainment, 37·2 per cent of all the cafés, bars and restaurants, and 39·2 per cent of all the petrol stations either disappeared or changed ownership, in the U.S.A.[48] About 320,000 enterprises were involved in these two years.

The concentration of capital is accompanied, in trade as in industry, by an increase in fixed costs and, consequently, a tendency for the rate of profit to fall. But whereas in industry this tendency to fall is partly offset by the appearance of *monopoly profit*,* this kind of profit is much harder to realise in the sphere of distribution, where monopolies are rare or non-existent. Thus, the net profits are, in "normal" times, much lower in trade than in monopolised industry. The Harvard Business School estimates them for 1955 at 2·6 per cent in the big stores, 5·1 per cent in the drug-stores, 4·6 per cent in the drapers' shops, 2·5 per cent in the hardware business, and so on.[49] It follows that the expansion of commercial businesses comes up against a profitability barrier, beyond which the concentration of capital leads to a reduction in profit margins. The increase in fixed and overhead costs already obliged the big stores in France to increase their share in selling prices from 25 to 30 per cent towards the end of the nineteenth century to 35 to 40 per cent around 1939.[50] In the U.S.A. this share increased from 27·1 per cent in 1944 to 31·2 per cent in 1948 and 35·2 per cent in 1954.[51] Thereby, the big stores became a factor in relatively raising prices instead of lowering them, and their power to compete with the small shops suffered accordingly.†

On the other hand, the increase in industrial concentration and the appearance of monopolistic trusts in the sphere of production leads to a substantial intervention by these trusts in the sphere of distribution. This intervention takes place not so much by way of establishing big stores as through founding a large number of small dependent businesses (cafés subsidised by the wine, beer and aperitif trusts; petrol stations subsidised by the petrol trusts; motor-car shops, garages and repair shops dependent on the motor-car trusts, etc.). The "heads" of these businesses are really managers appointed by the trusts. But their profit margins are sufficiently small to hinder the concentration of capital. The most striking example is that of the motor-car industry in the U.S.A., where three trusts concentrate over 85 per cent of production, whereas the trade in cars is dispersed among 40,000 enterprises whose profits come, to the extent of 97 per cent from the sale of single items, and 25 per cent of which, on the average, closed down every year before the Second World War.[53] Alderer and Mitchell add judiciously: "The distribution of automobiles is organised so that the burden of competition falls upon the dealers rather than upon the manufacturers."[54]

The ties of dependence which increasingly subject the retailers to

* See Chapter 12.

† This evolution has given rise to a reaction, the appearance of the "supermarkets", which endeavour to reduce their margins by restricting to the minimum the numbers they employ. Nevertheless, these margins remain around 18-20 per cent, and tend to get larger.[52]

the big trusts are also expressed in the spread of resale price maintenance. In Britain, it was estimated in 1938 that 31 per cent of retail sales were made at a price fixed by the manufacturer. In 1955 the percentage was estimated at 55 per cent![55] In West Germany some trusts impose commercial profit-margins so low as 10–15 per cent.[56]

Capital invested in transport

Improvement in the means of transport makes possible a considerable reduction in the circulation period of commodities and at the same time a reduction in their value, as the indispensable costs of transport are embodied in their exchange value. At the beginning of the Middle Ages, bringing back luxury products from the East was a complicated problem and a dangerous business. Transport costs were enormous. Only trade in goods very small in weight and very high in value was profitable.[57] In the sixteenth and seventeenth centuries both sea and land travel was a matter of much time and great risk. This was one of the major obstacles to the development of trade in goods which were both heavy and cheap.

The building of railways and steamships completely changed this situation. Henceforth, every part of the world was more closely linked with the big manufacturing centres than the towns of a single country had formerly been linked together. The establishment of a real international division of labour and a real world market would have been impossible without the prodigious development of means of transport and communication in the nineteenth century.

From the days of itinerant traders, commercial profit and "transport costs" were mixed up together, the latter constituting in fact only a small part of the former and including the subsistence of the merchant himself, his agents and his beasts of burden. Boats, carts, bags were cheap, and their value was replaced in a single expedition. This was no longer so, once the means of transport had undergone their enormous extension, in our own epoch. Railways, vessels that can cross the Atlantic, transport aircraft, all demand substantial outlay. The replacement of this outlay takes effect over a fairly long period. Transport costs thus become fixed charges which are embodied in the prices of commodities, regardless of the stage of the industrial cycle. This compels commercial capital to seek cheaper transport routes for non-perishable goods, even at the cost of considerably prolonging the time these goods spend in transit. In 1933 the cost of transporting grain, per ton-kilometre, varied between 5·50 francs for sea transport to 126 francs for land transport. For coal the figures were respectively, 3·5 francs and 107 francs, and for petrol 4 francs and 210 francs.[58] Commercial competition thus leads capital not to reduce but to extend the circulation period of heavy goods.

Furthermore, the immense investment of capital in the transport

sector has given the latter a special dual function in the history of capitalist industry. In the first place, the buiding of means of transport has played a key role in determining the growth of heavy industry; first, railways, and then motor-cars and aircraft soon after, have been its best customers. Consequently, the concentration of capital has been much more radically and rapidly accomplished in the transport sector than in the other sectors of industry. The struggle against the high costs of transport waged by other branches of capital, has generally concluded either with the absorption of the transport sector by monopolistic trusts, whether industrial or financial, or else by the nationalisation of this sector. In the end, the State alone has been shown to be capable of gathering sufficient capital to lower transport costs in the general interest of the capitalist class. Only through the appearance of road haulage on a large scale has medium and even small-scale private capital recently re-entered the transport sector.

International trade

Pre-capitalist large-scale trade was exclusively foreign trade. It drew its strength from the unevenness of economic development as between different parts of the world. With the rise of the capitalist mode of production, international trade attained a volume without precedent. But the nature of this trade changed at the same time as it became general. In former times essentially a trade in luxuries, it now became above all a trade in goods of current consumption, raw materials and means of production. The creation of a unified *world* market cut out, right from the start, fraud and trickery as essential sources of commercial profits. The majority of goods were now sold throughout the world at their actual prices of production. Commercial profits were henceforth deducted from the total amount of surplus-value produced by the workers.

This, however, does not mean that the unevenness of economic development, which continues, and is indeed intensified and worsened by the world development of the capitalist mode of production, has ceased to constitute a source of additional profits, and transfers of wealth from one country to another. The capitalist mode of production, the export of industrial commodities produced by the first great industrial countries, has indeed unified the *world market*. But it is far from having unified *world production*, its technical and social conditions, its average degree of productivity of labour.

On the contrary, the unification of the world market effected by capitalism is a unification of antagonistic and contradictory elements. The gap between the average productivity of labour of an Indian peasant and that of an American or British worker exceeds by far the gap between the productivity of labour in the largest Roman slave enterprise and that of the poorest peasant on the borders of the Empire.

This unevenness of development has become, under the capitalist mode of production, a special source of *super-profits*.

The value of a commodity is the amount of labour socially necessary to produce it. This amount of socially necessary labour depends in turn on the average level of productivity of labour. From the moment that marked differences exist between the average levels of productivity of a number of countries, the value (the price of production) of a commodity may differ markedly as between these countries.

Now, the formation of a world market implies the formation of world prices. As the modern textile industry has not covered from the start, and, in fact, still to this day does not cover, *all* the clothing needs of all the world's inhabitants, part of the human labour expended on making clothes with hand-looms, or by other archaic methods, still constitutes socially-necessary labour on the world market. The value of imported industrial cotton goods will thus be fixed in the backward countries at a higher level than in their countries of origin.

But only *a part*, and a continually shrinking part, of the total human labour expended on making clothes by old-fashioned methods is not socially-wasted labour, that is, actually finds purchasers for its products. This is why the value of cotton goods in the backward countries is fixed well below their local price of production (before the introduction of the most modern production methods).

When they export their goods to backward countries and import from them raw materials, foodstuffs, etc., the industrially advanced countries thus sell goods above their value and buy goods below their value. Behind a seemingly equal exchange "at world market prices", trade between an economically advanced country, possessing an advanced degree of productivity or even a monopoly in the given field, and an economically underdeveloped country, thus represents the exchange of less labour for more labour, or, what comes to the same thing, a transfer of value from the backward country to the advanced country: *

"It has often been said that the European peoples became rich by the impoverishment of other parts of the world, and there is truth in the charge."[60]

International trade is not only a source of super-profits for the advanced capitalist countries. It is also the indispensable safety-valve for the development of capitalist industry. Industrial production expands at a much faster rate than the market in the home countries;

* This explains the enormous profits made by British capital at the beginning of modern capitalism thanks to the notorious "triangular trade"; selling cotton goods in West Africa, where slaves were purchased who were then sold from the same ships in the West Indies, from which in turn these ships fetched sugar and rum to be sold in England itself.[59]

indeed, the contradiction between the tendency to unlimited development of production and the tendency to constant limitation of popular consumption, is one of the essential ways in which the basic contradiction of the capitalist mode of production shows itself. The prodigious development of capitalist industry, above all of British industry, in the first half of the nineteenth century, was possible only because, over and above the national market there was an international market to be conquered which seemed limitless. Exports of British cotton goods expanded with the capitalist mode of production, growing from £300,000 in 1781 to £30 million in 1825.[61] Trade with India grew from 250 million francs in 1820 to over 3 billion in 1880. And the total value of world trade grew from 10 to 30 billion francs between 1830 and 1850.[62]

Costs of distribution

All the expenses of distribution—trade, advertisement, telecommunications, etc.—are undertaken by commercial capital, which shares in the general division of surplus value. So long as this capital is above all ensuring the *increase* in the amount of profit, and the annual rate of profit, by reducing the circulation period of commodities and the rotation period of circulating capital, it contributes, as a whole, to the all-round lowering of prices which is characteristic of the capitalist epoch. The annual amount of surplus value thus increased is in fact transformed into ever more up-to-date industrial plant.

But this role undergoes a profound alteration as the capitalist régime evolves. As the productive forces expand prodigiously, and at more and more frequent intervals come up against the limits of the capitalist market, the essential role of distribution becomes less that of increasing the amount of surplus value than that of *ensuring its realisation.*

This realisation becomes a more and more complicated matter for the total mass of capitalist commodities. It requires longer and longer periods of time. The most frenzied competition dominates it. Stocks of commodities begin to pile up as a regular thing, at all levels, from the manufacturer to the small retailer. They accumulate not just for weeks but for months, and in the case of certain products, for years.*

To the *costs of distribution* which are technically necessary must thus be added the *selling costs* which are determined by the nature of the system, costs which grow unceasingly, making bigger and bigger the price the ultimate consumer has to pay for commodities.†

* Note, however, that these stocks fulfil, *to some extent,* the necessary function of social reserve funds, thanks to which society can face up to a sudden increase in demand, or to the effects of social or natural catastrophes.

† E. H. Chamberlin and Steindl have revealed this difference between distribution costs properly so called and socially determined selling costs.[63]

This increase in distribution costs is expressed first and foremost in the considerable increase in the number of persons employed in the distributive sphere. In the United States trade employed the following percentage of gainfully-occupied persons: in 1880, 10·7 per cent; in 1900, 16·4 per cent; in 1910, 18·9 per cent; in 1920, 21·2 per cent; in 1930, 23·9 per cent; in 1939, 24·4 per cent; in 1950, 24·7 per cent; in 1960, 27·6 per cent.[64]

Harold Barger estimates that 6·1 per cent of the total active population of the United States was engaged in distribution in 1870, 9·9 per cent in 1920, and 16·4 per cent in 1950.[65]

In Germany the proportions engaged in trade were, in 1861 one German in 83, in 1875, one in 65; in 1882 one in 54; in 1895, one in 39; in 1907, one in 30; in 1925, one in 19; in 1939, one in 17·5.[66]

This increase is then manifested in an increase, in the strict sense of the word, in the trade margins in the ultimate selling price. The growth in the general costs and fixed charges of trade is not accompanied by a rationalisation movement such as that which, in industry, accompanies the growth of fixed capital in relation to circulating capital. It is estimated as generally true that distribution costs make up 35 to 40 per cent of the average prices of commodities sold retail in the large capitalist countries.* At the same time, a more and more substantial part of the total available capital is tied up in the various spheres of distribution and in the form of stocks accumulated in the industry itself.

There is no more striking proof of the more and more *parasitic* character that the capitalist mode of production is beginning to assume as it approaches its maximum extension than the more and more limited place occupied by the *producers*, in the strict sense, in certain important branches of industry.

Thus, on 1st July, 1948, there were 2 million wage-earners in the petroleum industry in the United States, of whom only 400,000 were employed in exploration, production, refining and other productive activities; whereas 125,000 were employed in administration and scientific research, 225,000, in transport, 120,000 in supplies and services—in all, about 24 per cent in the spheres intermediate between production and trade. In all forms of distribution and sales, over 1·1 million people were employed, or 55 per cent of all the wage-earners in this branch of industry.[68] Similarly, in the motor-car industry, in the

* For the year 1939 the *Journal of Marketing* estimated at over 50 per cent of the total value added in national production the "value added" by distribution and transport. A recent study carried out in West Germany fixed at 44 per cent (including turnover tax) or 37 per cent (excluding this tax), the element of distribution costs in the prices of all products other than food. For bananas the distribution and transport costs have been estimated in the U.S.A. at 75 per cent [!] of the selling price, the distribution costs alone making up 55 per cent.[67]

same year, there were 978,000 wage-earners in the production sphere, as against 1·5 million in the sale and distribution of cars.

The shift of capital into the struggle not for producing but for realising surplus value becomes a real obsession when capitalism has reached maturity and is entering its declining phase. "The American citizen lives in a state of siege from dawn till bed-time," writes the magazine *Fortune*. "Nearly everything he sees, hears, touches, tastes and smells is an attempt to sell him something . . . To break through his protective shell, the advertisers must continually shock, tease, tickle or irritate him, or wear him down by the drip-drip-drip or Chinese water-torture method of endless repetition."[70]

And a mission from the Belgian Department for Increasing Productivity, made up entirely of executives of capitalist firms, which visited the United States in 1953, summed up admirably the absurd blind-alley of present-day capitalism:

"Production is becoming easier and easier, and perhaps gives cause for alarm [!] by this very ease; it tends to run ahead of effective [!] consumption. Technological unemployment can be avoided only by a continuous extension of consumption, and it is the task of distribution to foster to utmost this increasingly rapid evolution. It is distribution that decides what production will be useful if the consumer buys. 'Why produce if you cannot sell?' It is the last three feet of the course followed by the product on its way to the consumer that decides the success or the failure of the entire production-consumption cycle.

"The great danger at present threatening [!] the economy in several sectors is overproduction. As regards both agricultural and industrial products, the capacity for production is much bigger than needed . . .

". . . The wheels of production nowadays turn at such a rate that the slightest hesitation to buy on the part of the consumer [!] may make the entire economic edifice shake."[71]

Specialists in new techniques, from market study to public relations, including experts in advertising, marketing and motivational research, accordingly strive to avoid or forestall these "hesitations". In 1955 more than 9 billion dollars were assigned to advertising expenses.* This conditioning of the consumer (which makes ridiculous the apology for capitalism as a system which guarantees the freedom of the consumer!) leads to an extreme form of human alienation: the large-scale employment of means of persuasion which mobilise the unconscious, instinctive forces in men so as to cause them to buy, to "choose" and to "act" independently of their own will and their own consciousness! In *The Hidden Persuaders*, Vance Packard has drawn a frightening picture of this conditioning of the masses. He

* In general it is the consumer himself who pays the bill, for advertising costs are included when the cost of production of many products is calculated!

quotes a specialist who declares frankly in *The Public Relations Journal:*

"One of the fundamental considerations involved here is the right to manipulate human personality."[72]

We thus find the contradictions of capitalism pushed to the point of absurdity. Instead of freely distributing the wealth created by the rise in the productivity of labour; instead of making it the foundation for a free development of the human being, capitalism, wishing to keep profit and the market economy under conditions of semi-abundance, is forced to outrage and mutilate people more and more, at the same time the possibilities for their free development are increasing from day to day! The artificial organisation of want amid plenty; the artificial unleashing of passions when the age of reason could be coming to triumph; the dishonest creation of a feeling of dissatisfaction, when all needs could be satisfied; the ever more marked enslavement of man to things (things, moreover, of mediocre quality and dubious value), when man could become the absolute master of matter; this is what the capitalist mode of production has come to, in its most benign, prosperous and ideal form . . .

The Tertiary Sector

Taking up a remark by Sir William Petty, dating from before the industrial revolution, the economist Colin Clark has developed a theory according to which the "tertiary sector" (trade, transport, public services, public administration, insurance, banking, the professions, etc.) is more "productive" than the "secondary", meaning industrial production. According to this theory, the larger the proportion of the active population that is engaged in the "tertiary" sector the higher is the national income.[73] Far from merely serving to realise surplus value, and expressing the increasing difficulties of realising it, the rise in the "tertiary" sector marks an important economic advance by mankind.

We must observe first of all that the definition of this sector (a definition which has been adopted, amplified and modified by the French economist Jean Fourastié, in *Le Grand Espoir du XX^e Siècle*, where he writes of the "services" sector) is extremely confused. Colin Clark here lumps together productive activities (transport, public services such as production and distribution of water, gas and electricity) and unproductive ones; useful activities (teaching, health, public administration and accountancy) and others of a much more qualified, or even doubtful, utility (advertising, the armed forces, the police). The militarisation of Nazi Germany, which caused the "tertiary" sector to grow at the expense of the "secondary", was certainly not a sign of economic progress.

The concept of "productivity" is used by Colin Clark in the most

vulgar sense, that of "bringing a return". But from the fact that *in a certain social and political context* an expert in motivational research, an admiral of the fleet or a prima ballerina earn more money than an engineer, a miner or a foundry worker it would be mistaken to draw the conclusion that a nation would become richer if all the latter were replaced by the former . . .

Finally, Colin Clark's theory is contradicted by his own statistics. These show that before the Second World War, 34 per cent of the active population were engaged in the "tertiary" sector in Japan, compared with 30·4 per cent of them in Sweden and 33·2 per cent in Switzerland. Yet nobody would deny that Sweden and Switzerland were (and are) more prosperous than Japan. In China 20 per cent of the active population worked in the tertiary sector compared with 16·8 per cent in Bulgaria and 15 per cent in Yugoslavia; yet, despite their backwardness, the latter two countries were nevertheless a lot less poor than China. Egypt and Italy had the same percentage of people employed in the tertiary sector, though an abyss of poverty separated the former from the latter, etc.[74]

Colin Clark's mistake consists precisely in the confusion in his definition of the "tertiary" sector. At least five different phenomena need to be distinguished here, which are moreover *contradictory* in their relation to the economic progress and the average level of productivity of a nation:

1. The *survival* of a mass of small "retailers" and "middlemen" which is merely the manifestation of a degree of under-employment, of disguised unemployment, the absorption of which into manufacturing industry would constitute an enormous step forward economically. This phenomenon explains the inflation of "employment" in the "tertiary" sector in under-developed countries like old China and Egypt.

2. The *specialisation* of certain nations in transport activity (especially maritime) which are in reality productive activities that should be classed in the "secondary" sector. This phenomenon explains the inflation of employment in the "tertiary" sector in countries like Norway, and to some extent Japan.

3. The *backwardness* as regards mechanisation and rationalisation of certain distributive activities and personal services (such as retail trade, insurance and banking, footwear and clothing repairs, hairdressing, beauty parlours, etc.), compared with the mechanisation of industrial production,* which causes employment in the "tertiary" sector

* It is interesting that Alfred Marshall notices the same phenomenon, when he writes of activities in which the use of machinery plays little part,[75] or, still more, when he refers to activities in which the progress of invention has contributed too little to the saving of effort in the attempt to meet a growing demand.[76]

to become inflated as a result of the growth in *industrial* productivity. This inflation of employment, far from expressing the higher productivity of the "services" expresses, rather, their backwardness. But this is, of course, only a *temporary* backwardness; the mechanisation of office work, the appearance of supermarkets, the use of "disposable" napkins and plates, and other phenomena of the same order, make it possible to look forward to a quite different line of development. Further, it must be mentioned, in this connection, that Colin Clark *reverses* the relationship of cause and effect. It is true that the richer a *capitalist* country is, the bigger is the proportion of surplus-value that can be devoted to the purchase of services, the more diversified are the needs of the better-paid workers, and the larger is the proportion of their wages that goes on the purchase of services. It is thus not the development of the services sector that is the *cause* of social enrichment, but social enrichment that is the cause of the development of services.

4. The excessive inflation of the "services" connected with distribution, owing to the increasing difficulty of realising surplus-value in the period of the decline of capitalism. This is an irreversible tendency, but only within the framework of present-day *capitalism*, not that of present-day technique.

5. Finally, the development of creative occupations not linked with the direct production of commodities: pure and applied science, the arts, medicine and public health, education, physical culture, and all the "non-productive" activities connected with leisure. This is the only one of the five phenomena that seems to be definitely and irreversibly linked with economic progress and the rise in the productivity of labour. It means that a larger and larger section of mankind are freed from the obligation of carrying on uncreative work. Here we have not a survival from a dreary past but the harbinger of a wonderful future. When automatic machines will do all the work needed to produce goods for current use, men will all become engineers, scholars, artists, athletes, teachers or doctors. In this sense, but in this sense only, the future is indeed with the "tertiary sector".*

* See Chapter 17.

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CREDIT

Mutual aid and credit

TRADE was born of the uneven development of production in different communities; credit was born of the uneven development of production among different producers within the same community. When cattle breeding or cultivation are carried on as private activities, the differences of aptitude between individuals, the differences of fertility between animals or soils, innumerable accidents of human life or the cycle of nature, bring about this uneven development of production as between different producers. In this way there appear, side by side, farms which accumulate several yearly surpluses and farms which are working at a net deficit, that is, producing less than is needed for current consumption and for seed.

The uneven development of production as between different producers within the same nation does not *automatically* lead to the development of credit. This is not a natural institution but a product of certain social relationships. The private mode of exploitation of flocks and herds, or of the soil, develops within primitive communities which are slowly breaking up. During a long transition period it is combined with labour co-operation. A society based on co-operation does not know credit, but only mutual aid. The better-off members of the community usually come to the help of the less well-off, without expecting to get any material advantages in return for this help. This is still true among several primitive peoples.

Among the Dakotas, a North American Indian tribe, food and hunting equipment are freely lent.[1] In the Indonesian *desa* interest on advances of seed or fruit for planting or loans of cattle, etc., is unknown.[2] The Malay fishermen receive free loans of rice and money from their friends or relations during the monsoon periods, when they cannot go to sea.[3]

When primitive society has been disintegrated to the point where exchange relations and division of labour have become general, the concept of equivalence of values, based on the economy of labour time, replaces the concept of unstinted mutual aid among members of the same community. The more that production of mere use values is ousted by production of exchange-values, the more does the loan charged for replace the free advance made in the spirit of mutual aid.

Among the natives of the New Hebrides it was the custom to advance *food* to members of the same clan without any idea of getting payment in return for such advances. But advances *in the form of shell-money*, or the loan of a canoe to carry on trade with, had to be paid for by gifts.[4] Alonzo de Zurita and Mariano Veytia, two sixteenth-century writers who have left us interesting accounts of the life of the natives of pre-Columbian Mexico, record in the same way that among the Aztecs advances were usually made without any profit being sought. In certain parts of Mexico, however, the custom had developed of obtaining a payment in return for advances in *money* (chocolate-nuts, gold dust, copper discs, jade, etc.). Credit thus separates off from mutual aid at the *periphery* of primitive economic life, in those spheres of activity not directly linked with subsistence in the strict sense.

The ancient custom of mutual aid to ensure the subsistence of all the members of the community was kept up in agricultural societies long after the village community had begun to break up. Lending of wheat without interest went on in China right down to the time of the Chou dynasty.[5] Prohibition of taking interest on loans of corn or cattle is found in the earliest collections of laws: Vedic, Jewish, Persian, Aztec, Moslem.[6] At Susa, in ancient Iran, in the epoch called that of the High Commissaries, interest-free loans continued around 2000 B.C. alongside loans at interest.[7] In the Middle Ages the monasteries gave loans without charging interest.[8] Even in the fully-developed society of petty commodity production in Babylonia which we know from the Code of Hammurabi, "free loans" (mutual aid) for the poor, the sick, peasants hit by harvest-failure, are common alongside business loans at interest.[9]

Today still, "in many indigenous communities (in Latin America) there is a strong tradition of mutual help among independent small landholders and tenants in the granting of small loans without interest."[10] Bauer and Yamey note, similarly, that mutual aid is widespread wherever the "large family system still flourishes, as in India."[11]

The separation of credit from mutual aid thus takes place in the sphere of relations with foreigners sooner than in that of relations within a community. In the Old Testament and in the Koran, this distinction is clearly expressed. The principle of collective payment of taxes by a village, which has survived in all societies where the village community and petty commodity production exist together, represents a special form of mutual aid, preserving the poorest peasants from complete ruin.[12]

The origin of banking

The development of petty commodity production causes the circulation of commodities to be accompanied by circulation of money,

and the development of a money economy in the pores of a society based on the production of use values only. This explains the grip secured by *usury* on the producers at this stage of social development. But in a money economy money is not merely the *instrument* of exchange, it also becomes an *object* of exchange. The trade in money separates off from trade in the narrow sense just as the latter previously separated off from the crafts.

At the beginning of money economy, the precious metals were rare and their circulation was limited. They constituted primarily a reserve and security fund for society, and they were hoarded rather than put into circulation. Now, in those disorderly epochs, keeping one's treasure at home meant an excessive risk, especially of confiscation, robbery or destruction. So the custom grew up of entrusting them to the most respected institution of the time, namely, the *temples*. Had not the precious metals, like all objects regarded as precious, had originally a magico-ritual function, which made temples the obvious depositories for important hoards? This concentration of precious metals in the hands of the temples transformed the latter into the *first institutions of occasional credit*, from the first rise of a money economy.

This happened in Mesopotamia, from the first great temple-bank of Uruk (3400 to 3200 B.C.) to the age of Hammurabi (2000 B.C.), when the average rate of interest was fixed by the temple of Samas.[13] In ancient Iran the temples were the first moneylenders,[14] and this was still true in the days of the Sassanids.[15] In Israel, the Temple remained, right to the time of its destruction the chief place for storing movable wealth.[16] In ancient Greece, the temples of Olympia, Delphi, Delos, Miletus, Ephesus, Cos, all the temples of Sicily, functioned as storeplaces for money and as banks.[17] This position remained the same in the Hellenistic epoch.[18] In Rome the Pantheon was the centre of banking.

In the Byzantine Empire the monasteries were, from the fifth century onward, the chief owners of hoards; it took the Iconoclasm of the eighth century to bring these hoards into circulation as money.[19] Something similar happened in China, under the Tang dynasty. The Buddhist temple-banks increasingly monopolised both the stock of monetisable metals and credit operations; the State attacked them, secularised several thousands of temples and monasteries, and had all statues made of precious metal melted down in 843.[20]*

In Japan "the religious establishments . . . were the only places of safety during the Middle Ages, a period marked by civil disturbances . . . People carried on business under the protection of shrines

* Yang Lien-sheng notes that the practice of granting loans on security began, in China and in Japan, in the Buddhist temples. The expression "pawnshops" (*ch'ang-shing k'u*) originally meant "monastery treasuries".[21]

and temples. Some entrusted their precious documents and treasures to these sacred places in order to protect them from the destruction and pillage of warfare. Shrines and temples also acted as financial organs and made loans; organised co-operative credit facilities known by the names of *mujin* and *tanomoshi*; and utilised bills of exchange."[22]

In the period of the Lower Empire, the Buddhist temples were the only banks in the eastern part of Central Asia, where natural economy still prevailed.[23] Finally, in the early Middle Ages in Europe the monasteries likewise appeared as the only credit institutions giving loans *à mort-gage*.[24]* At the beginning of the twelfth century the religious order of the Templars became the first international bank of deposit, clearing and mortgage credit.[25]†

When large-scale trade developed, the precious metals began circulating to a greater extent. Now, as we have seen, large-scale trade was, at the start, above all international trade. This trade thus pre-supposed the simultaneous appearance of a large number of minted coins of different origins and amounts, which had to be exchanged one for another in accordance with their true value. This inevitably led to the appearance of a new technique with money itself as object, the technique of the money-changers. Offering in their turn reliable guarantees to the owners of precious metals who wanted to deposit them somewhere safe, these money-changers and traders in precious metals thus became the first lay guardians of hoards, and then the first *professional bankers*. The word "bank" comes from Italian *banco*, the table on which the money-changers carried out all their operations. Similarly, in ancient Greece, the word for a banker, *trapezites*, comes from *trapeza*, a money-changer's table.

In the ancient world the money-changers were the first professional bankers.[26] This was so in India, too,[27] and in China, where the diversity of coins was not the result of international trade but of the diversity of regional currencies.[28]‡ The money changers became real bankers in Japan in the age of the Tokugawas.[29]

In the Islamic empire of the Abbasids the introduction of a gold standard alongside a silver standard made the money-changers, or

* A loan *à mort-gage* is one where the lender receives as security a piece of land, a house, a mill, etc., from which he draws the revenue until the loan is repaid. This was the chief form of mortgage credit in the Middle Ages, down to the twelfth century, when it was forbidden by a bull of Pope Alexander III, being replaced by the sale of bonds (see Chapter 4). The expression gave rise to the English term "mortgage". It was contrasted with the loan *à vif gage*, in which the revenue from the security (land, or whatever it might be) was set against the debt, gradually reducing it.

† The Templars accumulated their starting capital from the ransoms they extorted from Moslem prisoners.

‡ See Chapter 3.

jahbadh, economically indispensable persons; soon they were fulfilling all the functions of bankers.[30] Kulischer[31] lists the chaotic conditions which determined the appearance of the money-changers in the Middle Ages and favoured their transformation into bankers:

"In the thirteenth and fourteenth centuries there were circulating in France, alongside coins of royal origin, or struck by the great vassals, also Arab, Sicilian, Byzantine and Florentine coins; in southern France, Milanese *libri* and Venetian ducats, in Champagne Spanish *reals*, Burgundian and English *nobili* and crowns from the Low Countries. People everywhere accepted coins minted at Lübeck and Cologne, English *sterling* and French *tournois*. The *grossi* and *ducats* of Venice and the *fiorini* of Florence were the most widespread coins."

The origin of the mediaeval banks has been thus described by R. De Roover:

"The Genoese money-changers specialised first in exchange by hand, but they soon extended their field of action by accepting deposits repayable on demand, carrying out settlements of accounts by transfer in accordance with their clients' instructions, and, finally, advancing loans to their clients on current account. The tables or offices of the money-changers thus gradually became banks of deposit and clearing. In Genoa the evolution was complete before the end of the twelfth century."[32]

The famous Bank of Amsterdam, founded in 1609, owed its formation likewise to the monetary confusion prevailing in those days in the young republic of the United Provinces.[33]

Credit in pre-capitalist society

The first banking operations, money-changing by hand, receiving and guarding hoards, and giving loans on security of land (mortgage loans) were not operations in the "money trade" in the strict sense. Indeed, in the age of the *depositum regolare*, the deposit to be looked after and returned on the mere demand of the depositor, the trustee, far from paying interest to his client, claimed a fee for his services as guardian of the wealth deposited with him.[34] This was still the case with the Bank of Amsterdam in the seventeenth century.[35]*

These operations involved essentially classes of society which were outside the production and circulation of commodities, or only on their periphery. With the development of a money economy, these classes became the classic victims of usury, either large-scale or petty. In the Middle Ages the big international commercial and banking societies practised the loan on security at the expense of kings and

* The practice of charging a small safeguarding rate on hoards deposited reappeared in the second half of the nineteenth century, in the system of safe deposits inaugurated in 1861 by the Safe Deposit Company of New York.

princes, while the more modest Lombards looked after the feudal small fry and the commoners.[36] This was, basically, a form of *consumer's credit*.[37]

The real "trade in money" appeared only in connection with the classes engaged in the circulation of commodities and capital, that is, the young bourgeoisie, usurers and merchants. The development of international trade itself created an inherent need for credit. The separation in time of purchase from delivery;* the separation in space of buyer from seller; the need to transfer substantial sums of money over considerable distances, while the coins concerned were subject to continual fluctuations in value[39] all this gave rise to the need for commercial credit or *circulation credit*. Every society with a developed international trade creates the essential instruments of this credit: bills of exchange and letters of credit. "The negotiation of bills of exchange has its roots in international trade."[40]

We see them appear in 2000 B.C. at Ur in Babylonia, under the Chou dynasty in China (1134–256 B.C.) and at the beginning of the Buddhist epoch in India.[41] In ancient Greece they were in wide use from the fourth century B.C. and subsequently spread throughout the Hellenistic world.[42] From there they passed to Byzantium and the Islamic world from which they made their way back into Europe in the Middle Ages.[43]

The circulation credit provided by these first non-negotiable merchants' bills did not widen the sphere of operation of capital. It only made possible a more rapid turnover and a larger return; when investment credit appeared, that is, the advancing of funds for a business which would bring in surplus value, the sphere of activity of capital was extended; "sterile" money, hoarded money, was transformed into capital and participated in the production of surplus value.

The oldest form of this entrepreneur's credit was the *maritime loan*, the association of a lender with an adventurous captain to carry out an enterprise of maritime trade, a loan which was itself derived from the practices of groups of pirates, as was shown especially in the stipulations regarding the division of profits.[44] From ancient Greece and the Hellenistic world this "loan for a great venture" was passed to the Byzantine and Islamic empires, to reappear from the ninth century in Byzantine Italy and spread from there throughout Europe in the form of *the commenda contract*.[45]

At first, this sort of trading association was confined to a single venture. Later, however, with the transition from itinerant trade to

* "In so far as the Genoese buy wool, paying for it before it is supplied to them, they take care to lower the price they pay . . . They are themselves ready to raise the price by one or two *reals* for each unit of weight, on condition that they pay for it only when they receive the wool, and especially if, for at least half of the bill, there is a further three-months period of grace."[38]

sedentary trade, the *commenda* gave place to *multi-partnership companies* formed for a certain number of years. From the thirteenth century onward, all the big Italian companies (Peruzzi, Bardi, Medici, etc.), were associations of this sort. The Bardi, for instance, were working in 1331 with a capital made up of 58 shares, belonging to 11 partners.[46]

Finally, when international trade became regular and lost its adventurous character, at least in a certain sphere, it attracted a large share of idle capital. This was deposited with the big merchant-banking concerns as *depositum irregolare*, the merchants being authorised to operate with it as they chose, the money not being repayable at short notice, and *fixed interest* being paid on it by the merchants, as a share of the merchants' profit they realised.[47]

The bankers thus became, with petty commodity production, "middlemen between the suppliers of money-capital and the demand for it."[48] Now, at this time, it was not private individuals but the State (kings, princes, communes, etc.) that mainly had need of money. The *public debt* thus developed parallel with circulation credit and investment credit, taking precedence over them.

The oldest known example of public credit is that recorded by the pseudo-Aristotle in the Second Book of the *Economics*: the Ionian colony of Klazomenae, in Asia Minor, lent leaders of mercenaries the means of settling their men's arrears of pay, and covered this loan by a forced loan from its rich citizens, who were obliged to accept iron money in exchange for their gold and silver coins. The annals of Han-chow record that in 154 B.C. a Chinese usurer named Wu Yen-chih had lent 1,000 catties of gold (about 530 lb. or a little under one million gold francs) to the government to enable it to wage war against the "rebellion of the seven kingdoms". He was paid 1,000 per cent interest, or 10 million gold francs.[49]

Public credit soon assumed its classical form by being provided with the *future revenues of the State* as security. In most societies based on petty commodity production, operations of public credit remained rare and risky, and normally ended in the bankrupty of the lenders.

But from the sixteenth century onward, *negotiable bonds based on the public debt** effected a revolution in the history of credit and made it possible to extend considerably the field of operation of capital, by transforming into capital masses of non-capitalised money. Encouraged by the expeditions of the Kings of France into Italy and by the

* "Francis I spent on an enormous scale. In order to have funds, he found himself obliged to resort to a new technique. Turning to the municipality of Paris, he assigned to it 20,000 *livres* of revenue which he collected in the Paris area. The town gave him 200,000 *livres* which it received from its citizens in return for a regular payment of 8 per cent (the twelfth *denier*): these payments were the famous *rentes sur l'Hotel de Ville*."[50]

scattered disposition of the states ruled over by Charles V, public credit became international.

"Credit, after being a mere means of settling accounts, became a value in itself, a negotiable and transmissible object of exchange."[51]

On the Antwerp stock-exchange the obligations of the King of Castile, the letters of credit of the government of the Low Countries and of the Kings of England and Portugal, bonds issued by the great cities of Europe, all were fully negotiable. During the currency upheavals and the disorder of public finances during the sixteenth century, all the old banking houses failed. From this circumstance arose the *modern public banks* which combine the guarantee of the security of deposits which is indispensable for the bourgeois public with the promise to the State that it will be the chief, if not the only beneficiary of these deposits. The *Bank of the Rialto* of Venice, founded in 1587, corresponded above all to the first purpose; the *Bank of Amsterdam*, founded in 1609, added to it the need to regulate the circulation of money. The *Bank of Hamburg*, founded in 1619, united with these functions that of lending to the State. The same applied to the *Bank of Sweden*, founded in 1656, whereas for the *Bank of England*, founded in 1696, it was the last-mentioned function that became predominant.[52]

The remarkable development of international trade after the commercial revolution of the sixteenth century led to a fresh extension of commercial credit. Following the example of the public debt bonds, merchants' bills became negotiable in their turn from the sixteenth century onward, following the practice of endorsement and discounting.[53] At the same time, the development of the colonial joint-stock companies widened the sphere of activity of investment credit. But it was necessary to wait for the development of the capitalist mode of production for credit to pass from the sphere of trade, properly so called, to that of production.

Supply and demand of money capital in the epoch of commercial capital

Thus, with the rise of commercial capital, credit became, from having been an exceptional phenomenon, a regular institution of economic life. The discounting of merchants' bills spread widely from the seventeenth century onward in England, and from the eighteenth century in France and in the big centres of international trade, first for foreign trade purposes, then for internal trade as well.[54] The geographical extension of trade, the long time taken by trading operations with America and the Far East, the concentration of the chief trading concerns in a few big international centres, all favoured this use of trade bills to mobilise capital.

Whereas the bill of exchange had hitherto been only a means of

speculating on variations in exchange-rates,[55] it now became a regular means of supplying circulation credit to trade, and also means of short-term investment of "sterile" money capital. In this way a *market for money capital* was developed.

The chief representative of demand on this market was the State, which continued to be, in the epoch of commercial capital, the great, insatiable borrower. Clapham observes that down to the Industrial Revolution the Bank of England carried out the bulk of its credit operations with the King's government.[56] It was the same with the Caisse d'Escompte, founded in 1776, not to mention the ill-starred bank set up by Law, which was sunk by its operations in the sphere of public credit.[57]

Alongside the State, however, other borrowers began to appear. These were, in the first place, the big joint-stock trading companies, whose need for money was enormous for those days and which often had to apply to credit institutions for cover for their needs until a fleet returned to port.

Thus, the Dutch East India Company borrowed money from the Bank of Amsterdam, while, along with the State, the English East India Company was the chief debtor of the Bank of England throughout the eighteenth century.[58]

Next came holders of public bonds (rentiers, nobles, traders and bankers) and the bills of merchants who, needing ready money, discounted this paper. At first the discounting of public bonds predominated, but in the closing decades of the eighteenth century the discounting of private bills began to be more important.

Finally, as in the epoch of petty commodity production, there was demand for money—consumer's credit—on the part of the nobility and the high officials of the State, and this was met by loans on security, the latter taking the form of precious metals, jewellery, deeds, etc.

The supply of money capital came from persons holding liquid capital, principally the large landowners, together with traders who accumulated more money than they could invest in their own businesses. The bankers on the Continent were engaged exclusively in exchange and deposit operations in the seventeenth century and the first part of the eighteenth century, and gave no credit. In England, however, from the seventeenth century onward there appeared the trader who occasionally advanced money to his customers.

With the growth in the circulation of money, the enrichment of society, the parallel development of this demand and this supply of money capital, local private banks began to be formed, about the middle of the eighteenth century, in England first of all, with the function of acting as middlemen between those who were looking for capital and those who were looking for opportunities of transforming

into capital their reserves of ready money. These local banks, which normally developed from prosperous trading houses, accepted deposits, issued bank notes and discounted trade bills: this was the birth of the modern banking system.[59]

The Industrial Revolution rapidly expanded this initial network of banks. Whereas in 1750 there were only a dozen local banks, the number had risen to over 200 by the end of the century (even to 350, according to some writers).[60]* The organic way in which these banks developed in the midst of the mode of production of that time is indicated by the example of the house of Gurney, at Norwich, as described in a circular sent by this house itself to bankers on 5th October, 1838:

"The collecting of yarns from . . . manufacturers of the East of England and holding them in stock to supply those who are employed in weaving . . . was a very lucrative business, and we deliberately question whether the Gurneys did not at one time derive from it an annual income greater than is obtained by any bank in the Island of Great Britain . . . In the course of dealing with the worsted spinners for their yarn, this family began to supply them with cash to pay the wages of labour and enable them to carry on their operations in business. Out of these circumstances arose the great banking operations of this family . . ."[62]

This rapid development is explained above all by the uneven development of the different regions of England. The banks in the regions that remained agricultural usually had deposits for which they sought a field of investment,† whereas the banks in the industrial areas were under pressure to furnish credit and were constantly looking for funds. The London money market was born of this situation; it acted as intermediary between the banks with too much in the way of liquid funds and those with too little.

Supply and demand of money capital in the epoch of industrial capitalism

With the Industrial Revolution, however, the market for money capital was greatly enlarged and changed. Alongside supply and demand coming from the pre-capitalist strata of society (landowners,

* On the basis of a study of the records of the private bankers of London at the end of the seventeenth century and during the eighteenth, D. M. Joslin observes that these banks did not as a rule advance funds to traders or entrepreneurs. It was only when, around 1770, some banks were established which included indistrialists among their founders that the first credit operations directed toward industry began.[61]

† Down to the beginning of the nineteenth century rural banks paid commissions to London brokers so that the latter would procure them merchants' bills to discount.[63] This shows how scarce and sought-after were fields for the short-term investment of capital!

traders, craftsmen, civil servants, rentiers, etc.) appeared supply and demand arising from the mechanism of capitalist production itself.

Money capital is the starting point and the finishing point of the rotation of capital. But it does not appear only at the beginning and the end of this process of rotation. Constantly, during the production process itself, money capital is eliminated from the process and turned into money which is "unproductive" from the capitalist's point of view. And, also constantly, a demand for *additional* money capital arises from the entrepreneurs, to enable them to achieve the investment of their own capital in the most profitable way.

The money capital needed to renew the fixed capital of an enterprise is not accumulated until several years and several rotation cycles of circulating capital have passed. This *depreciation fund*, unless it be used meanwhile for other purposes, will lie "unproductive" during this period. The *wages fund* of a big enterprise, advanced at the beginning of each production-cycle, would remain unproductive to the extent that this production-cycle was longer than a month (for employees paid monthly) or even a week (for those paid weekly). The share of the annual profit put aside by the capitalist for his own consumer needs (*unproductive consumption fund*) is expended only during the course of an entire year, so that a large part of it will remain unproductive for a large part of the year. The *accumulation fund* of the enterprise, the share of the profits which is reinvested in the business, is not used in its entirety right from the start of a fresh production-cycle. The capitalist will await the favourable moment, for instance, a good market conjuncture, before investing these profits. There we have four sources of money capital temporarily excluded from the production process and so made unproductive.

On the other hand, the renewal of fixed capital does not take place exactly at the moment when the necessary depreciation funds have been accumulated. Necessitating as it does the involvement of substantial amounts of capital, and entailing very large risks, this renewal will be effected, for preference, at particular moments of the economic cycle, when the capitalists expect a significant expansion of the market.[64] If a certain capitalist has not yet accumulated the depreciation (and accumulation) fund by this precise moment, he will have to try and borrow the capital he needs, so as not to let slip this opportune occasion. The capitalist who has at his disposal a technical invention which would enable him to expand his market at the expense of his competitors is in a similar situation if he lacks the capital needed to exploit this invention.[65]

At certain moments of the economic cycle, the industrialist knows that any increase of production whatsoever can be absorbed by the market. That is the moment when he needs to get his capital together

and invest his profits. If he has not yet realised his profits, he will have to borrow so as to be able to invest them in advance.

Finally, the recovery of production, after the close of a production cycle, should in theory begin as soon as the circulation cycle of commodities has concluded. But, as we have seen, the amount and annual rate of profit depend on the number of annual production-cycles, and so on the industrialist's capacity to resume production *before* his circulating capital, invested in commodities which have been produced but not yet sold, has come back to him. For this purpose, too, he will seek to borrow additional money capital, which he will be able to repay as soon as he has received the money from the sale of his goods.

The function of credit institutions under capitalism is to fulfil the same role of intermediary between those who hold unproductive sums of money and those who are looking for opportunities to increase their own capital with the aid of borrowed capital. The pre-capitalist relationship between bank capital and the other forms of capital is thus reversed; in the capitalist mode of production, bank capital begins as a subordinate servant of industrial capital. But whereas the separation of the modern capitalist trader from the capitalist industrialist is only a question of functional division of labour, the separation of the capitalist banker from the capitalist industrialist or trader is inevitable from the very first appearance of the capitalist mode of production.

Contrary to the industrialist and the trader, the banker has in fact to play a social role *directly*. He is useful to the capitalist mode of production only to the extent that he can overcome the fragmentation of social capital into a multitude of individual properties. It is in this function of *mobiliser and centraliser of social capital* that his whole importance to society consists. This function goes beyond the class limits of the bourgeoisie in the strict sense and embraces the centralisation of the funds saved by landowners, rich and middle peasants, craftsmen, civil servants, technicians, and even skilled workers in prosperous periods.

"[By about 1875] the organisation by which all free British capital was sucked into the London money market was functioning almost perfectly. Compared with other national organisations, or lacks of organisation, it had been highly efficient even twenty years earlier. In the interval, Scottish and provincial branch banking had drawn in almost the last of those rustic hoards which country folk had kept 'in their desks and cupboards'; and a smooth open channel had been cut, down which the northern surpluses flowed South. The channels from East Anglia, the South-West, and rural England generally, had been cut long before . . . From Town, what was not used there ran out into the industrial districts, by way of the discount or re-discount of manu-

facturers and merchants' bills. These were the greatest days of the London bill-brokers, the Lombard Street houses."[66]

At the same time the market for money capital became more and more specialised, and two distinct markets came into being:

(1) The money market, the supply and demand of *short-term credit*, dominated by the banks, except in England, where the bill brokers have long played a predominant part, and (2) The finance market, the supply and demand of *long-term credit*, at first dominated by the banks and the stock-exchange, joined in the twentieth century by the insurance companies, the savings banks, the building societies and other organisations of institutional saving (pension funds, health insurance funds, semi-public institutions, etc.), which seek to transform into capital (often without any profit to the owner)* all money income not immediately spent. The centralisation of money capital thus attains its highest, perfected phase; the banks "allow no sum of money to remain unproductive".

Interest and rate of interest

Like the profit on usurer's capital with which it is identified in its beginnings, interest is at the time of its first appearance in the economy only a *displacement* of value from debtor to creditor. When a peasant has to borrow X amount of wheat in order to survive till the next harvest, and when he then has to deduct from this harvest X + Y amount of wheat in order to repay his creditor, the total amount of wheat in the possession of these two people will not have increased owing to the loan. An amount Y will merely have been transferred from the debtor to the creditor. This form of usury, which is far from having disappeared, permanently impoverishes its victims and enslaves them to their creditors:

"In Cochin-China the farmer, or *ta dien*, borrows from his landowner the means of feeding himself and his family until the harvest; when the harvest is in it is usually not big enough to release him from his debt, and the *ta dien* remains tied to the land by his debt no less surely than a mediaeval serf was tied by custom."[67]

This is no longer true with circulation and investment credit in capitalist society. The advancing of funds no longer has for its aim the survival of the debtor, but is intended to *enable him to realise a profit*:

"Business will pay a positive interest if a present sum can be so used in commerce and industry as to yield a greater sum in future" [i.e. the sum borrowed, plus a surplus value, a profit.][68]

"It is a well-recognised principle . . . that in the last analysis the

* This is in particular the case with the funds of the savings banks and the social insurance funds, which are used to finance the State's expenditure. See Chapter 13, section "War Economy".

money rate of interest depends upon the supply of and demand for *real capital* . . . that the rate of interest is regulated by the profits from the employment of capital itself . . ."[69]

Circulation credit is intended to realise in advance the value of commodities already produced: investment credit has for its purpose to increase the capital of an enterprise. In both cases the amount of surplus value increases, either by reduction in the rotation-time or by growth in the amount of capital. The interest is thus nothing but *a fraction of the extra surplus-value obtained through the borrowing of capital*. It is lower than the profit,* because if it were equal to the latter there would normally be no advantage in borrowing, since the capital borrowed is expected itself to bring in the average profit. The creditor is satisfied, because before he lent his capital it was "lying idle" and bringing no return. And the debtor is also satisfied because, though he has to surrender interest to the creditor, he still makes more than if he had borrowed nothing.

The interest paid by a capitalist entrepreneur for the borrowing of capital is a fraction of the total surplus value produced by his workers, a fraction surrendered by the entrepreneur because the loan has enabled him to increase this total surplus-value by an amount greater than the interest due. But with the generalisation of the capitalist mode of production every entrepreneur is on the look-out for additional capital. At the same time, the socially-centralising function of the banks enables *every* sum of money to be transformed into additional money-capital. Thus, by the working of supply and demand in relation to money capital the *average rate of interest* is constituted, the "normal return" on every sum of money which is not "lying idle". This, needless to say, has nothing to do with the "intrinsic qualities" of the money, but represents the outcome of definite relations of production, which enable this sum of money to be *capitalised*, so that it may appropriate a fraction of the surplus value produced by the totality of workers in the given society. From this basis the habit spreads in bourgeois society of regarding all income as the income on an imaginary capital, capitalised at the average rate of interest: † "With the growth of capitalist mentality an obviously useful habit has developed, the beginnings of which are in Germany, for instance, observable since the fourteenth century, of expressing any returns,

* Except in the backward countries, where the rate of interest also includes part of the ground rent. It thus exceeds the rate of profit on merchant capital, which is what explains the predominance of usurer's capital in these countries. The *New York Times* reported in 1955 the case of a laundryman of Karachi (Pakistan) who paid 3,925 rupees in interest on a loan of 100 rupees, at the rate of 25 per cent a month, or 300 per cent a year, for 13 years and one month.[70]

† An income of £500, when the average rate of interest is 5 per cent, would be regarded as the return on an assumed capital of £10,000.

except returns to personal services, as a percentage of a capital value."[71]

This habit has led bourgeois economists to the idea of similarly separating, in the case of a capitalist entrepreneur who operates with his own capital only, the interest on his capital and the entrepreneur's profit (called "a sort of rent" by some writers, such as Marshall) which is left when this interest is deducted from the total profit. This is obviously an "ideological" operation, that is, a fictitious one, since any entrepreneur expects to obtain on his capital not the average rate of interest but the average rate of profit. This practice is all the more useful for bourgeois economists in that it enables them to dodge the problem of profit, that is, of exploitation, and replace in their systems all theory of profit by a simple theory of interest.*

The credit organisations do not fulfil their function, as intermediaries between those who have money capital to offer and those who want it, out of pure altruism. They, too, operate with a capital of their own which must bring in the average rate of profit. Their profit appears in the form of *banker's profit*, which consists mainly in the difference between the rate of interest paid by these institutions for money entrusted to them on deposit and the rate of interest they exact from those to whom they grant credit. To this must be added other income derived from, e.g. commission and brokerage for making investments, carrying out exchange transactions, etc.

As credit institutions, the banks especially, pay interest (even though very little) on every sum of money deposited with them, even for a few days (current accounts), it is to their advantage to lend out in their turn all the money at their disposal, so that these transactions may end in a profitable balance for them. Thus there appears on the money market, alongside circulation credit in the strict sense, *day-to-day credit* ("call money"). It began in England in 1830, when, on the eve of the quarterly payments of interest on government stock, large sums of money accumulated in the Treasury's accounts in the Bank of England, which caused a shortage of money on the money market. To offset this shortage, and so as not to let these sums remain "unproductive", they were advanced for a period of a few weeks, or even a few days, to clients desirous of this sort of credit, especially to the discount houses, which used them to increase the volume of their rediscounting operations. These advances made on security of deeds and bonds deposited could be recalled merely on demand. The deposit banks, too, adopted the practice of lending available funds from day to day.[72]

In this way a whole scale of rates of interest has been established,

* With Keynes the bourgeois economists rediscovered that interest relates only to the demand for *liquid* capital, that is, money capital, and so cannot determine the profit brought in by productive capital.

rising higher and higher, from the rate paid on long-term deposits and demanded for investment loans. At each level there is a difference between the rates paid by the banks and credit institutions and the rates they in turn demand from their clients.

The difference between these different rates arises in the first place from the degree in which the credits contribute to increasing directly the amount of surplus value produced by society. Clearly the rate of long-term interest, that which governs investment credit, which means especially the purchase on credit of means of production, is the highest, closest to the average rate of profit, and governs *ultimately* all the variations in the different rates of interest. The rate of short-term interest, which mainly governs circulation credit, is lower than the rate of long-term interest to the extent that circulation credit, by reducing the rotation-period of capital, makes *possible* but does not ensure the increase in the amount of surplus value. The short-term rate of interest may, however, sometimes exceed the long-term rate, for instance when there is a shortage of money on the money market which threatens not merely to extend the rotation period of capital but to destroy capital itself (danger of bankruptcy).

Also to be taken into account is an insurance and risk premium which is contained in interest and which varies according to the duration of the loan and the particular moment in the industrial cycle and also according to the particular conditions of supply and demand of money capital at the various levels, which (given a free market) subject the different rates of interest to daily fluctuations.* But these fluctuations occur around an average figure determined in the last resort by the level of the average rate of profit.

This is why, apart from the regular fluctuations resulting from the phases of the industrial cycle, it is hard to establish laws of long-term evolution applicable to the rate of interest. The latter depends in the last analysis on the *relative* shortage or plenty of money capital, in relation to the relative level of the rate of profit.

Thus, the rate of interest goes down in a society of petty commodity economy which has unified a vast international market within which the unevenness of economic development between different regions is increasingly reduced. This is what happened in Antiquity from the time of Caesar,† and in mediaeval Europe (Western and Southern Europe) from the second half of the fourteenth century.[73] The rate of interest goes down also when money economy becomes general in an agricultural country, and when in consequence the agricultural

* For the reciprocal effect of variations in long and short-term interest during the industrial cycle, see Chapter 11.

† At this moment it becomes more profitable to make *loans in kind* to the peasants, loans which continue to bring in very high interest. These loans in kind became the main form of usury in the Roman Empire.

classes free themselves a little from the oppression of usurer's capital; interest then no longer includes as heretofore a part of the ground rent.

On the eve of the great imperialist expansion of the last quarter of the nineteenth century, the industrialised countries all experienced a marked lowering of the average rate of interest, owing to the lack of fresh fields of investment for capital. On the morrow of the Second World War, in the United States and in Switzerland, the plentiful supply of capital and the lack of fields for investment offering the average profit severely reduced the rate of interest, whereas it was rising in the other capitalist countries, where a shortage of capital prevailed as a result of war damage and general impoverishment (Germany, France, Italy).

Circulation credit

All credit granted so as to make possible the realisation in advance (i.e. before actual sale) of the *value of commodities* is a circulation credit.[74] This is a short-term credit, rarely for longer than three months, which is granted by banks, both specialised and other.

With the generalisation of the capitalist mode of production, production becomes increasingly separated from the market, and the realisation of the value of commodities and surplus-value becomes more and more complicated, with risk of prolonging the rotation period of capital, even taking into account the intervention of commercial capital. But it is precisely at this epoch that, in order to react against the tendency of the rate of profit to fall which results from the immobilisation of an ever-growing fraction of capital as fixed capital, the capitalist seeks to *shorten* the rotation time of circulating capital. This is the essential function of circulation credit, which makes it possible to cut down to the minimum the entrepreneur's own circulating capital.

"The Bullion Report, referring to the increased operations of brokers in the four or five years before 1810, pointed out that the improved discount facilities available in London had tended to increase the business of the country manufacturer, by enabling him to turn over his capital more quickly."[75]

Macrae estimates that 30–40 per cent of the circulating capital of the whole of British industry is provided by credit.[76]

In the nineteenth century, circulation credit functioned mainly in the form of *discounting merchants' bills*. The producer of cotton goods does not pay his supplier in cash, but gives him a draft or promissory note. The supplier goes to a banker who takes over this merchant's bill, paying him the sum due, less an interest called discount. When the promissory note falls due to be paid, the cotton manufacturer pays the amount stated on it to the banker. The latter has thus in

reality lent this sum for three months to the supplier of raw cotton, so enabling him to reduce by three months the rotation time of his capital (and also that of the cotton manufacturer, who receives credit from his supplier only because the latter in his turn receives credit from his banker).

Since the Middle Ages, however, another form of circulation credit has existed.[77]* Each capitalist has a current account with the local banker which enables him to make payments and receive sums of money by way of mere written orders (transfers from one account to another). All the payments in and out thus pass through the hands of the banker, who becomes a sort of central book-keeper. At a given moment a manufacturer has in his bank only a current account of one million francs to his credit. To continue production, however, he needs immediately two million francs, so as to be able to pay wages. The banker knows that, a few weeks later, the manufacturer will make large payments-in of money arising from the sale of his commodities. He therefore allows him to draw out of his account more money than he possesses (to have an overdraft); in fact, he advances him one million francs. Naturally, the manufacturer will pay interest for such an "advance on current account", normally not less than 5 per cent, except when very large firms are involved.†

From the last quarter of the nineteenth century, the advance on current account has more and more taken the place of the discounting of merchants' bills as the main form of circulation credit.[79] The concentration of capital leads to the formation of enterprises so big that they possess sufficient credit with their banks to obtain by way of advances on current account all the short-term credit they need. Small enterprises, however, are more and more embarrassed by the need to settle the discounted merchants' bill at *a fixed date*, and fear the discredit attached to the non-payment (protesting) of drafts when this becomes known. Finally, the integration of big enterprises with their suppliers of raw material and their selling organisations in trusts, financial groups, etc., abolishes the classical partnerships that made use of merchants' bills.[80] Thus, in Great Britain, the volume of ordinary merchants' bills discounted fell from £250 million in 1913 to £100 million in 1937, whereas advances on current account to industry reached £850 million in 1929 and £1 billion in 1938.[81]

Nevertheless, since the great crisis of 1929, especially in the United States, advances on current account to large-scale industry have begun to decline in their turn, owing to the accumulation of huge reserves of ready money by monopoly capital,‡ the relative decline of the

* Polanyi declares that a system of advances on current account was already practised by the bankers of ancient Assyria.[78]

† On the *monetary* consequences of this form of credit, see Chapter 8.

‡ See Chapter 14, section "Overcapitalisation".

industries especially dependent on bank credit, the extension of cash payments in retail trade, and the development of specialised credit institutions. It is above all the small and medium entrepreneurs who are responsible for the bulk of requests for advances on current account.[82] Along with this, in the last few years there has been a growth in the amount of discounting in some European countries, such as Switzerland, France and Belgium, as a result of an attractive policy of rediscounting on the part of the currency authorities, who expect to be able to influence more directly the fluctuations in the volume of money if circulation credit takes the form of discounting rather than of credit on current account.[83]

Investment credit and the finance market

All credit given in order to increase the *amount of capital* of an industrial or commercial entrepreneur is an investment credit. It is a *long-term credit* involving comparatively substantial sums, and is given, from the creditor's point of view, with the purpose of bringing in *a lasting income.*

The immediate origins of this form of credit are to be found in the purchase of ground-rent in the Middle Ages, in the constitution of the mediaeval trading companies, in the depositing of sums of money at fixed interest with the great trading associations of the fourteenth century, and in the long-term loans granted to kings, princes and cities by merchants and usurers in the Middle Ages.* It did not assume its modern character until the sixteenth century, with the appearance of the stock-exchange and negotiable instruments. From then onwards there was a social class which sought to dedicate its wealth—its capital —to investment in long-term credit operations, so as to increase this capital by the product of these investments. These people furnished the *supply* of capital on the embryonic finance market. The *demand* for capital was provided above all by the State, and then, to an ever-increasing extent, by the joint-stock companies. The predominance of government stock on the finance markets of Western Europe continued throughout the whole epoch of commercial capital, that is, in the majority of countries, down to the beginning or even the middle of the nineteenth century.

The public debt quickly took on the form of *fixed-income* stock payable from the future receipts of the State;† private stock was and remained above all *variable-income stock*, the actual return depending

* See Chapter 4, where also described are the origins of the stock-exchange, the public debt and joint-stock companies.

† Governments unable to pay the interest on their public debts experienced the seizure by foreign powers of their customs administration, this being the principal source of their income! This happened to China in the nineteenth century and to Venezuela in the twentieth.

on the yearly (or half-yearly, etc.) profits of the companies issuing the stock. In both cases the purchase of a share represented for the capitalist the purchase of a *claim to income*, a right to participate in the future share-out of society's surplus-value. The social nature of investment credit became more and more marked as stock-exchange operations widened their scope and numerous bourgeois built up portfolios containing shares in a growing number of companies, together with stock issued by many States, provinces, communes and other public entities.

The risk run in lending substantial sums to an enterprise for a lengthy period of time logically implies that additional guarantees are sought: the right to supervise the management of the money lent and the general administration of the business. This is why direct share-holding in the enterprises being aided, that is, the formation of multiple-partnership companies, has always been the most usual form of investment credit.

The old companies of the Ancient World, of China, of the Middle Ages, of the Arab and Byzantine civilisations, and so on, were all companies of *unlimited liability*: the partners were liable for the company's debts to the full extent of their possessions, whether these were invested in the company or not. This brought about the rapid collapse of all the mediaeval banks which granted investment credit. In Venice, of the 103 banks set up in the fourteenth century, 96 went bankrupt.[84] The development of the capitalist mode of production ended by *depersonalising* credit, a process which reached its stage of perfection in the joint-stock company and limited liability company of modern times. The purchase of shares and debentures in a business has become the normal way of giving investment credit.

Though the joint-stock company began to appear in the sixteenth century, it was not until the nineteenth century that it finally became dominant. Two shattering bankruptcies which occurred at the opening of the eighteenth century, that of the South Sea Company in Britain and that of the Mississippi Company in France, had developed in the bourgeoisie a holy terror of the risk implicit in this form of credit.[85] Actually, the manufacturing epoch was not yet propitious to such an extension of credit as the later rise of industrial capitalism demanded.

Thus, the investment credit given to private businesses increased little between the sixteenth century and the end of the eighteenth. While joint-stock companies developed but slowly, the deposit banks, remembering the lessons of the end of the Middle Ages,[86] turned away from investment operations, which, moreover, were forbidden them if they were chartered as public banks. The banks confined their long-term operations to the State and a few rare privileged customers.

Only when the British merchant bankers and the Continental "*haute banque*" establishments appeared, towards the end of the eighteenth century, did bankers begin afresh to interest themselves in private business, commercial and industrial. In 1822 the *Société Générale de Belgique* was the first business bank in the true sense, which, by at first granting short-term advances to industrial enterprises, soon found itself suffering from excessive tying-up of capital and was thus led to acquire shares and to take the initiative in founding joint-stock companies.[87]

The example of the *Société Générale* was followed in France, but the resounding downfall of the Pereira brothers' *Crédit Mobilier* set back the expansion of business banking in most European countries until after 1872.[88] Several countries then saw the rise of mixed banks, that is, banks which accept deposits and which also give investment credit.

In the twentieth century the finance market has become transformed under the influence of the development of insurance companies, savings banks, social insurance funds, etc., which, while assembling huge amounts of capital, cannot use them to buy securities with variable income. Several countries have passed laws defining these limitations or even extending them to the deposit banks. As a result, government stock has assumed the preponderant place on the contemporary finance market in most countries, just as used to be the case before the nineteenth century.[89] This phenomenon has accompanied that of *self-financing* of big concerns.*

It would be wrong to regard the sums deposited in the social security funds, the savings banks, etc., as an *accumulation of money-capital* more or less equivalent to the accumulation of capitalist funds in the banks. In reality, workers' savings constitute a *deferred consumption fund* which will be mostly spent during the depositor's own lifetime. In a global figure of the incomes of *the class of wage and salary earners*, there must be set off against these workers' savings the debts of sick, disabled and pensioned workers, the aid they have to seek from public assistance, or from family or other private sources, the reductions in level of consumption by these sections falling below the subsistence minimum, etc. The overall balance, which these figures confirm, shows that one generation of workers accumulates practically nothing in the way of transferable securities in the course of its lifetime taken as a whole.

The Stock Exchange

The capitalists and credit institutions who invest their available money capital in the form of shares and debentures in joint-stock

* See Chapter 14, section "Self-financing".

companies expect to obtain for these loans the *average rate of interest*. With debentures and fixed-income shares this is guaranteed them in advance. With the mass of shares in the proper sense of the word, the interest obtained fluctuates with the profit realised; it is called the *dividend*.

But shares, debentures and other transferable securities, as claims to income, become negotiable and are bought and sold on the stock-exchange. Their price is then simply *the capitalisation of the annual dividend (income) at the average rate of interest*. This price is the share's quotation on the stock-exchange.* Since the dividend paid by a company varies from year to year, and as estimates of probable dividend likewise vary throughout the year, these quotations may fluctuate violently. Real speculation on a rise or a fall is organised, often causing artificial changes in quotations; false rumours are circulated, or imminent sharp changes affecting the profitability of the business are concealed.

In some countries this speculation is carried on to a large extent on credit; thus, in New York, credits to speculators on Wall Street constitute the chief operations of the money market.[90]

Holders of shares and debentures receive the *average interest*; joint-stock companies in industry, trade and finance realise the *average profit*. Where does the difference go? In so far as it is not reinvested in the business and transformed into reserves, it is *capitalised in advance* in the form of *founder's profit*: additional shares, special preference shares, etc., are assigned to the founders of the company.

Let us suppose that an industrial enterprise has a capital of 100 million francs, and it wishes to obtain a further 200 million francs from the public to expand its business. Let us suppose that the average rate of profit is 10 per cent and the average rate of interest 5 per cent. If shares were issued for the sum of 300 million francs, they would be expected to bring in every year, on the average, 15 million francs in dividends. But the founders of the joint-stock company anticipate an annual profit of 30 million francs. The difference between the average interest and the average profit, or 15 million francs, will be capitalised at the average rate of interest of 5 per cent thus forming an additional capital of 300 million francs, which the founders take for themselves. The founder's profit thus materialises in the fact that the total capital for which shares have been issued will be 600 million francs, whereas only 300 million francs will have actually been paid in. The 300 million francs of additional shares will constitute merely *claims to income*, enabling their holders—the founders of the busi-

* This is not absolutely true. Also to be taken into account is possible reimbursement in the event of the winding-up of the company. This factor does not enter into calculations, however, except when such winding-up is in actual prospect.

ness—to take every year the difference between the average profit and the interest (the dividend), or entrepreneur's profit. Thus, when the great British chemical trust, Imperial Chemical Industries, was formed in 1926, its nominal capital was £56,803,000, whereas the aggregate of enterprises merged together to form it had capital totalling only £39 million.[91]

The capitalisation of founder's profit explains the remarkably rapid enrichment of "captains of industry" in the great periods of foundation of joint-stock companies (*Gründerjahre*). But in fact it capitalises *in advance* the *future* difference between the average profit and the interest, and so includes a large speculative element. Many joint-stock companies, overcapitalised in this way, prove unable to pay for long dividends equivalent to the average interest, precisely as a result of this overcapitalisation, while others even go bankrupt.

Another way of appropriating founder's profit is to boost the quotations of shares on the stock-exchange. Take a company founded with a capital of 10 million francs, divided into 1,000 shares each of 10,000 frances. This company is expected to earn an annual profit determined by the average rate of profit, say, 15 per cent, or an annual profit of 1·5 million francs, or 1,500 francs per share. Now, the average interest being 5 per cent, a sum of money lent is not expected to bring in more than 5 per cent, and 1,500 francs is regarded as the normal annual income on 30,000 francs. The founders will therefore succeed in selling their shares on the stock exchange for 30,000 francs each instead of 10,000 francs, and thus appropriate the difference, which is again the capitalisation of a difference between *future* average profit and the present average interest. When Dunlop, the British rubber trust, was refloated in 1896, shares issued at £3 million were sold six weeks after issue for £5 million.[92]

A good example of a combination of these two forms of founder's profit is provided by Harrods, the large British department store, established as a joint-stock company in 1889. The company had a capital of £1 million, of which £1,400 was preference shares for the founders, who assured themselves a large and increasing participation in the profits. Despite the fact that Harrods' ordinary shares paid annual dividends of 10 per cent at first, and later 20 per cent, on the average, during over 20 years, the founders' shares were immediately capitalised at £140,000 and were worth on the stock-exchange in 1911 not less than £1,470,000, ten times their nominal capital and 1,000 times the capital actually paid in . . .[93]

While shares and debentures continue their independent circulation on the stock-exchange, among brokers, the real values they represent may have long since disappeared. The warships built with capital borrowed by a government may long since have gone to the bottom of the sea, just as the machines bought with the money raised by the

sale of shares may have been transformed into so much old iron. The divorce between real capital and the mass of negotiable claims, already marked as a result of the overcapitalisation of many joint-stock companies, thenceforth becomes complete. The mass of claims no longer represents anything but a *fictitious capital* which, under the appearance of a fraction of the total capital of society, hides its true nature, that of a mere claim to income, which confers a right to participate in the share-out of society's surplus-value.

Joint-stock companies and the evolution of capitalism

For a long time some people have wanted to see in the development of joint-stock companies a proof that capital, far from becoming concentrated, is "democratising" itself. Are there not millions of shareholders in some countries, for instance, in the United States? Is it not possible for any skilled worker to use his savings to buy shares in big industrial companies?

This notion is based on a twofold confusion. First, not everybody is a capitalist who claims an income from the sharing-out of society's surplus-value; if that were so, every disabled ex-Serviceman would be a "capitalist". Only those shareholders who, thanks to the income on their capital, can live without selling their labour-power, and live at a standard which corresponds at least to that of a small industrialist, can be classed in this category.

Investigations carried out by the Brookings Institute in the U.S.A. in 1952 showed that out of more than 30 million American workers only 2 per cent held shares. Out of a total of 6·5 million shareholders, 4·5 million held fewer than 100 shares each and received from them an *annual* income of less than 200 dollars, or less than the *monthly* wage of an average worker. It would therefore be absurd to regard them as being "capitalists".

Consequently, though the joint-stock companies appear formally as institutions which *diffuse* ownership of the means of production, in reality they constitute an important stage in the *concentration* of capital. It is a mere legal fiction to regard a small shareholder as being "co-proprietor" of a giant trust like General Motors, for instance. In return for this title he has in practice handed over his savings to the big industrialists and bankers to do what they like with them. The joint-stock company is therefore rather a disguised form of *expropriation* of small savers, not for the benefit of a nameless force but for that of the *big capitalists*, who thus succeed in getting control of a mass of capital which greatly exceeds their own property.

"In effect, when an individual invests capital in the large corporation, he grants to the corporate management all power to use that capital to create, produce and develop, and he abandons all control over the product. He keeps a modified right to receive a portion of the

profits, usually in the form of money, and a highly enhanced right to sell his participation for cash. He is an almost completely inactive recipient."[94]

It is interesting to note that the decision of a British court has confirmed this view. Lord Evershed declared in 1949: "Shareholders are not, in the eye of the law, part owners of the undertaking. The undertaking is something different from the totality of shareholdings." And the *Economist* adds: "In other words, an ordinary stockholder does not own an aliquot part of the company's assets. He is entitled to an aliquot part of the profits that the directors recommend for distribution . . ."[95]

Before the rise of the joint-stock company one had to own the greater part of the capital of a business in order to control it effectively. Gardiner C. Means has shown how, thanks to the development of these companies and the dispersal of their shares among small shareholders, a few big shareholders can be sure of controlling the trusts with shareholdings which give them only a minor part of the capital.[96] In the American Telegraph and Telephone Company, for instance, 43 big shareholders held in 1935 more shares than 242,500 small shareholders. In one of the chief American cigarette trusts, the Reynolds Tobacco Company, there were in 1939 66,357 shareholders; but 20 of these held 59·7 per cent of the "A" ordinary shares and 22·5 per cent of the "B" ordinary shares.[97] The British Bowaters trust had 42,866 shareholders on 1st June, 1959; but the 26,000 smallest shareholders held altogether £2·8 million ordinary shares, compared with £4·3 million in the hands of 151 big shareholders—63 of whom held £3·4 million worth!

The Brookings Institute investigation already mentioned showed that 2 per cent of the total number of shareholders, or less than 0·1 per cent of the American people, or 130,000 persons, each one holding 1,000 shares or more, together account for 56 per cent of the stock-exchange value of all American shares, and so control the bulk of American capital.

Professor Sargant Florence has examined in detail the distribution of shares among the small and large shareholders of the chief joint-stock companies of Britain and the U.S.A. The result is significant. In 1,429 American companies 98·7 per cent of the shareholders—the mass of small shareholders—hold only 38·9 per cent of the shares, whereas 0·3 per cent of the shareholders—those who each hold more than 5,000 shares—concentrate 46·7 per cent of the shares in their hands. If we take only the big companies with a capital exceeding 100 million dollars, these percentages remain practically the same. (These figures relate to the situation in the years 1935–37.)

In Britain, in the case of the 30 largest companies, 96·4 per cent of the shareholders—the small ones—hold 40·1 per cent of the shares,

while 0·5 per cent of the shareholders—the big ones—hold 35·9 per cent of the shares.

Of the 126 largest joint-stock companies in the U.S.A., the 20 principal shareholders hold over half the shares in one quarter, from 30 to 50 per cent in another quarter, and from 20 to 30 per cent in a fifth. In Great Britain, out of the 82 largest joint-stock companies, the 20 principal shareholders hold over half the shares in 40 per cent, from 30 to 50 per cent of the shares in 17 per cent, and from 20 to 30 per cent of the shares in 21 per cent.

Finally, analysing the way all these companies are run, one finds that 58 per cent of the British and American companies are clearly dominated by the principal shareholders, while 33 per cent of the British and 15 per cent of the American companies are "marginal" cases.

And Professor Sargant Florence concludes: "Proceeding thus from the known to the unknown there is certainly evidence for believing that the managerial revolution has not proceeded as far as is sometimes thought (or stated without thought) and that leadership and the ultimate decision on top policy may remain in many companies or corporations with the larger capitalist shareholders."[98]

Norman Macrae estimates that in Britain 2 per cent of the population holds over 90 per cent of all the shares, and that between 100,000 and 150,000 people (0·2 to 0·3 per cent of the population) hold more than 50 per cent of these.[99]

It is the same in India, where the shares of some of the biggest companies are distributed like this: [100]

	Advance Mill		*Tata Mills*		*Tata Hydro-Electric*	
Category holding	*share-holders* %	*shares* %	*share-holders* %	*shares* %	*share-holders* %	*shares* %
From 1 to 25 shares	93·6	40·0	79·0	14·1	82·0	24·2
Over 150 shares	0·9	36·5	2·4	64·0	2·2	48·33

In each case, a small number of large shareholders hold as many shares as or more shares than the great mass of small shareholders and thereby control the joint-stock companies. In reality, a still narrower group wields a preponderant influence on the joint-stock companies: *

"The company form favours the creation of a real aristocracy or oligarchy. It gives rise to professional administrators whose role consists exclusively of undertaking the administration of the big capitalist companies . . . By multiplying the links which connect them with numerous companies they form among themselves a sort of personal dynasty. An entire system of interlocking relationships comes into being, to which a great variety of names are given: 'communities of interest', 'inter-directorates' . . . this dual fact of personal freedom from

* See Chapter 12.

responsibility and possession of administrative authority favours the making of alliances and agreements (i.e. monopoly)."[101]

The generalisation of joint-stock companies (limited liability companies, corporations, etc.), constitutes an important stage in the *de facto* socialisation of credit and of the economy as a whole. When the bank lends an industrialist the money that a small rentier has deposited with it, the industrialist remains the owner of most of the capital with which he operates. With the formation of joint-stock companies we see a more and more marked separation of the entrepreneur from the *rentier*-owner. The entrepreneur's capital becomes a means of control over capital many times larger than his own.

Consumer's credit

Circulation credit and investment credit essentially remain within the circle of the bourgeoisie, big and small. But the capitalist epoch also sees the reappearance of consumer's credit, whether provided by way of usury or otherwise. Falling into debt in the shops where they have to buy goods of primary necessity, the workers, office-workers, unemployed, and declassed people may soon find themselves chained for life to a pitiless creditor who seizes a large part of their meagre incomes as interest on a debt which they will never be able to shake off. This form of usury is particularly hateful when it is practised by shops which belong to the very enterprise to which the worker sells his labour-power.

With the mass production of what are called consumer *durables* (cookers, sewing-machines, refrigerators, washing-machines, radios and television sets, motor-cycles and cars, etc.) there appeared, around 1915, another modern form of consumer's credit.[102] Usually, the wages of workers and office-workers, even skilled ones, are inadequate for them to buy such goods for cash. The payment of a fraction of their weekly or monthly wage enables them, however, to acquire the goods as their own property, after a certain time. Industrialists and traders are interested in fostering this *hire-purchase* method of selling because it constitutes the only way to expand the market for these consumer durables, and because as a rule they receive considerable interest on this credit (difference between the cash price and the hire purchase price).* Also the traders' overheads (storage and handling) are substantially reduced, since the purchasers take responsibility for these charges. But even apart from the exploitation which is implicit —return to the company of articles on which an instalment has not been paid—the excessive development of the hire-purchase system is a factor of instability in the capitalist system, especially

* This interest is often usurious, since it continues to be calculated on the total price of the article, even after 50 per cent or 75 per cent of the price has already been paid.

towards the end of the boom and on the eve of the slump in each economic cycle.[103]

The close link between this modern consumer's credit and the mass production of consumer durables is clear from the fact that, almost non-existent before 1914, these credits developed in the U.S.A. after the First World War—6·3 billion dollars in 1929, 25 billion in 1952—and in Great Britain, West Germany, Belgium, Sweden, France, etc., after the Second World War, at the very moment when the motor car, motor-cycle, refrigerator and T.V. industries were expanding in these countries.[104]

Credit and the contradictions of capitalism

Credit has thus deeply marked the history and development of capital. It has mightily extended the field of operations of capital, by making possible the capitalisation of every available reserve of money. It has facilitated, accelerated, generalised the circulation of commodities. It has stimulated capitalist production, competition, the concentration of capital, in short, all the developmental tendencies of capitalism. Credit appears as an instrument no less indispensable to the capitalist mode of production than trade, making possible a substantial reaction against the tendency of the average rate of profit to fall.

Credit has likewise transformed the bourgeois class itself. The separation of interest from profit, of a class of rentiers from the mass of the bourgeoisie, marks at the same time both the logical culmination of capitalist development and the first definite sign of its decay. Here, indeed, is a fraction of the bourgeoisie who live merely on their *ownership* of capital, and who, by doing this, are placed completely outside the production process, without any direct contact with the machines or the workers. The *private* character of capitalist appropriation, which remains personal and tangible in the capitalist enterprise which is family property, becomes more and more objective, abstract, in the joint-stock company. The rule of capital assumes its most general and anonymous form. Apparently it is no longer men of flesh and blood who embody exploitation, but "companies", synonyms of objective, blind economic forces.

Like trade, credit makes possible a considerable reduction in the rotation-time of capital, *an ever greater mobility of circulating capital, in contrast to the tying-up of a growing share of capital* in gigantic fixed installations.* It thus mitigates for the immediate future the

* At the beginning of the crisis, credit even makes it possible to absorb the first shock of a sudden fall in prices. In so far as the entrepreneur is operating with borrowed capital, he can sell *below the price of production*. The price obtained need only be sufficient to pay the interest, which is less than the average profit.

contradictions resulting from the evolution of capitalism. At the same time, however, it intensifies these contradictions in the long run. At the beginning of industrial capitalism, each capitalist was able to check very quickly whether the labour-time expended to produce his commodities was socially-necessary labour-time or not. It was enough to go to the market-place and there look for buyers of these goods at their price of production. When trade and credit insert themselves between the industrialist and the consumer, the former begins by realising automatically the value of his commodities. But thereafter he is unaware whether or not they will find a real outlet, whether they will find an "ultimate consumer". Long after he has already spent the money representing the value of the commodities produced, it may turn out that the latter are unsaleable, not really representing *socially necessary* labour-time. The slump is then unavoidable. Credit tends to postpone the slump while making it the more violent when at last it comes.

By making possible an expansion of production without any direct relation to the absorption capacity of the market, by concealing for a whole period the real relationships between the production potential and the possibilities of effective consumption; by stimulating the circulation and consumption of commodities over and beyond the real purchasing power available, credit puts off the date of the periodical crises, aggravates the factors of disequilibrium, and thereby makes the crisis the more violent when it breaks. Credit merely develops the basic divorce between the two essential functions of money—means of circulation and means of payment—and between the circulation of commodities and the circulation of the money which realises their exchange value, contradictions which are the primary and general sources of capitalist crises.

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CHAPTER EIGHT

MONEY

The two functions of money

MONEY, the universal equivalent, is above all a commodity in the value of which all other commodities express their own exchange value.[1] The equation: 25 sacks of wheat are worth 1 pound of gold expresses an equivalence in exchange value, that is, in socially-necessary labour-time. As a common measure of value money possesses no mysterious quality. It can fulfil this function because it is itself a product of human labour and itself possesses a definite value.

When exchanges are simple, and buying and selling are gradually replacing barter, this basic quality of money is obvious. At the beginning of petty commodity economy there are usually two or three universal equivalents, which are used together as measures of value: wheat and gold or copper in Egypt and Mesopotamia; wheat, rice and silver in China, etc. Under these circumstances, nobody could regard money as being merely a conventional instrument of exchange.

The social division of labour is still relatively simple and transparent. When 25 sacks of wheat, 5 cows and a pound of silver are exchanged, the respective labour of the cultivator, the cattle-breeder and the miner appear reduced to a common measure, a common fraction of the total labour-time available to the given society based on accounting in labour-time.

But when exchanges become numerous and more and more common, this simple and quite transparent relation vanishes. Money is no longer merely the common measure of values, it has also become the means of exchange.[2] A large number of commodities come together on the market, in the possession of their respective owners. These commodities will pass from hand to hand until they reach those purchasers who wish to realise their use value. The latter take them finally off the market. Money facilitates these successive exchanges and makes them possible in the conditions of a unified market.[3] For it to carry out this function, however, its own intrinsic value is only of secondary importance. If the value of 25 sacks of wheat is equal to that 5 cows, it matters little to the cultivators and the cattle breeders that they have exchanged these two commodities after having first received and then paid one pound of fine silver, or ten pounds of crude-alloy silver. Because the entire circulation of commodities looks like

a succession of exchange transactions in which money plays only the part of an *intermediary*, the illusion may arise that the value of the universal equivalent itself is of no importance for the proper functioning of the economy.

This is indeed an illusion. In so far as the circulation of commodities develops into a circulation of commodities and a circulation of money, money itself develops simultaneously into a means of circulation and a *means of deferred payment*. In a society which is essentially commodity-producing, a mass of commodities is in circulation thanks to credit. The money equivalent of these commodities will not be received until later.[4] Every fluctuation in the intrinsic value of money, the universal equivalent, immediately gives rise to disturbances in the relations between debtors and creditors, harming the former when the value of money rises (as happened with copper in the days of the Roman Republic) and ruining the latter when the value of money collapses.

The value of metallic money and price movements

Since the moment when the precious metals were more or less universally adopted as universal equivalents, fluctuations in their intrinsic value have always caused great upheavals in commodity prices, that is, in the expression of the value of these commodities in money terms. A rise in the value of metallic money causes a fall in prices expressed in this money, whereas a fall in the value of metallic money causes prices to rise.

The first great revolution in the value of money occurred when, as a result of the use of iron tools, the conditions of production of silver were much improved, and this led to a fall in the value of the metal, about 900 B.C. This decline in value caused a marked rise in prices expressed in silver: the price of a "qur" of wheat rose from two silver shekels under Hammurabi (2,000 B.C.) to 15 shekels about 950 B.C.[5] Six centuries later, Alexander the Great seized huge amounts of precious metals accumulated in the Persian imperial treasury, and this loot had the same effect as very cheap production—it led to a fall of about 50 per cent in the value of gold and silver, and a corresponding rise in prices.[6]

From the second century A.D. the reverse process occurred. The increase in the price of slaves, the decline in their output, the closing of numerous mines, the ebbing of the plundered treasure back towards India, increased the value of gold and silver, and caused a fall in prices expressed in precious metal (though this was obscured by the debasement of the coinage by successive Emperors).[7] This movement reached its culmination about the eighth and ninth centuries A.D. Then the trend was again reversed. From the fourteenth and fifteenth centuries onward, a real technical revolution in silver mining brought

about a fall in the value of this metal and an all-round rise in prices. This became general in the second half of the sixteenth century, following the opening up of the silver mines of Potosi in Bolivia, and those of Mexico, by means of slave labour, which greatly reduced the costs of production and led to the closing of many mines in Europe.

When comparing the fluctuations in value of metallic money with the fluctuations in prices, one must not lose sight of the fact that the same technical upheavals that, by increasing productivity, cause a fall in the value of the metal, may likewise bring about a fall in the value of *all* commodities. In these circumstances, a fall in the value of gold and silver may be accompanied by stability or even decline in the prices of commodities. Thus, the same revolutionary technique of the iron age which lowered the value of silver in the tenth century B.C. made possible a considerable extension of agricultural production at lower costs, and led to a collapse of agricultural prices between the tenth and seventh centuries B.C. (the price of wheat, for instance, fell from 15 shekels to half a shekel per "qur").[8]

So long as the world market was fragmented into thousands of regional markets whose mutual relations were infrequent and slight, the coexistence of numerous universal equivalents in the world was not felt as any special difficulty in the way of exchanges. When the Portuguese, and later the Dutch, began trading in Indonesia, they found there various currency standards in force side by side. Gold and silver money has been able to coexist with shell money in aboriginal communities.[9] Only when industrial capitalism has effectively unified the world market, when nothing but exchange values are being produced, does the need for a universal equivalent for all countries make itself felt. The attempt made by several countries to base the universal equivalent simultaneously on gold and on silver (bimetallism) was doomed to defeat. These two metals having each their own exchange-value, which is subject to many variations in the capitalist epoch, constant disturbances were inevitable in the expression of the price of one metal in terms of the other and in the expression of the prices of commodities in either of them.[10] Finally, towards the end of the nineteenth century, nearly all countries were obliged to come round to accepting the gold standard; gold became the universal measure of gold for all countries. Resistance was prolonged, however, in the Far East, where, from the sixteenth century, silver had been used as the universal equivalent, first in China and later in India and Japan.

The circulation of metallic money

The precious metals serve as instruments of exchange by themselves representing a definite exchange-value. Equal values exchanging for equal values, it seems obvious that with the use of metallic money

a precise ratio is established between the total price of all the commodities in circulation and the amount of currency needed for the exchange value of these commodities to be realised. To determine this ratio, account has to be taken of the fact that one unit of currency can effect several successive exchanges.

A peasant has brought a coin to market in order to buy some cloth. With the same coin the cloth merchant buys a supply of flour from the miller. The miller in his turn buys some wheat from a peasant, still using the same coin. The latter will thus have effected in one day three exchange transactions, each being equal to the value of the coin itself. If we represent by v this velocity of circulation of the currency—the number of exchange transactions carried out by one coin in a certain period of time—by Q the number of commodities in circulation, and by p the average index of prices, we get the following formula which defines the amount of currency in circulation, M:

$$M \times v = Q \times p^{11}$$

The total amount of currency in circulation, multiplied by the velocity of circulation of the currency, must be equal to the total amount of commodities in circulation multiplied by the average index of prices. From this we get the following formula for the amount of currency needed for exchanging all the commodities in circulation:

$$M = \frac{Q \times p}{v}$$

Finally, by replacing $Q \times v$ by P, the total sum of the prices of all the commodities in circulation, we get the following formula:

$$M = \frac{P}{v}$$

The total amount of currency in circulation must be equal to *the sum of the prices of all the commodities exchanged*, divided by the velocity of circulation of the currency.

This formula must not be regarded as reversible. Nor must it be considered as an algebraic formula in which the knowledge of three factors enables one automatically to deduce the fourth.[12] It is P that must be seen as being normally the *only independent variable* of the formula. The prices of production of the commodities may fluctuate with their value; technical progress may cause a more or less radical fall in prices. In that case, some of the metallic money may be withdrawn from circulation, and perhaps hoarded. If the quantity of commodities in circulation increases markedly, without any corresponding increase in productivity (i.e. a corresponding decrease in the value of each commodity), an extra amount of metallic money will be needed

to make exchanges possible. There will therefore be a drive to increase by all possible means the production of precious metals (reopening of closed mines, search for new mines, etc.). This is what happened from the end of the fourteenth century down to the sixteenth. But the velocity of circulation of currency is not an autonomous factor. "The velocity with which currency circulates tends to vary with production itself, and, in this sense, variations in currency circulation do not affect prices."[13]

Origins of private fiduciary currency

From the rise of petty commodity economy, however, the use of metallic money alone could put a brake on the rapid settlement of exchanges. A sharp expansion in international trade could cause a shortage of coin and so hinder economic growth. This happened not only in Western Europe in the fourteenth and fifteenth centuries but also in the Islamic Empire in the days of the Abbasids,[14] in Egypt in the Hellenistic epoch,[15] in ancient Greece before the discovery of the mines of Laurium,[16] in China in the ninth century A.D.[17] Periods of shortage of currency are usually characterised by an ever more rapid circulation of coins, which wear out more quickly and so deteriorate in weight and value.

Moreover, the use of metallic money alone entails a number of difficulties in the setting of fully developed petty commodity production. The departure of maritime expeditions and caravans which have to carry their means of exchange for a long period may cause sudden shortages of currency. R. de Roover quotes a fifteenth-century treatise on trade,[18] written by Uzzano, which shows that in Venice, every year, in the months of June and July, there was a shortage of currency owing to the departure of the galleys for Constantinople. This "tension" on the mediaeval "money market" regularly continued until after the departure of the galleys for Alexandria at the beginning of September, and was repeated between 15th December and 15th January, after the departure of the galleys sent to fetch cotton. On the other hand, in October and November there was plenty of currency around, because at that time the German merchants who had come to buy spices brought a lot of money to Venice.[19]

The simple need to transport often substantial amounts of coin in order to make payments shows that the use of metallic money could become very cumbersome.

"[Under Louis XVI] the transport of coin undertaken by the stage-coach service was very burdensome . . . On the 10th, 20th and 30th of every month, Mercier tells us in his *Tableau de Paris*, between ten o'clock and mid-day one encountered porters lugging bags full of money, and bending under their weight, running as though an enemy army was about to surprise the town . . ."[20]

These transport difficulties were found particularly troublesome in countries like China, where the metals used for coinage were baser than gold and silver, namely, copper and even iron.

To this must be added the great monetary insecurity that usually prevailed in those days, as a result of the simultaneous circulation of a wide variety of coins,* and also of fraudulent operations such as clipping, etc., especially on the part of the royal exchequers. In the sixteenth and seventeenth centuries this phenomenon existed on so large a scale in England that in 1695 50 per cent of the value of the country's tax receipts was lost through the inadequate weight of the coins paid in.[21]

All these reasons explain why, at a certain stage of development of petty commodity production, the growth of trade leads merchants to invent *tokens for money* by means of which exchanges can be accelerated and their settlement simplified. The two classical forms of these tokens, which appear more or less generally in every society with a developed merchant capital, are bills of exchange and transfers of bank deposits (bank money).

We have seen how the bill of exchange was born of the separation in time between purchase and delivery and in space between the buyer and the seller.* In mediaeval Europe these bills were, at first, exchange contracts and credit instruments. In other societies, they were mere credit instruments, like the "rice bonds" of Japan,[22] or cheques payable in metallic money or in specific commodities, like the "tea bonds" in China under the Sung dynasty.[23] What is characteristic of these documents, leaving aside the part they play as credit instruments, is that when their use has become general it is possible for them to serve as tokens for money. All that is needed is that they be capable of circulating, that is, be accepted by persons other than those named on the given document. In Western Europe this circulation was ensured though the practice of *endorsement of bills of exchange* which became widespread there in the sixteenth century.[24] At the beginning of the nineteenth century, in Scotland and Lancashire, bills of exchange still circulated as means of exchange, each being covered with many signatures.[25]

The technique of transfers of bank deposits by writing was more extensively used to make up for the inadequacy of metallic money, at least in Western Europe from the Middle Ages onward. The majority of merchants opened accounts with the big merchant banker houses. When they bought goods they instructed their banker to enter in his books the sum to be paid, on the debit side of their account and on the credit side of their supplier's account. Similarly, when they sold products, they had entered on the credit side of their account the sum due

* See Chapter 7.

to them, while the same sum was entered on the debit side of their customer's. At certain intervals, the net balances of the debit and credit accounts of each merchant were settled by means of deposits which they placed with the bankers, and possible extra payments of cash which had become necessary. This clearing system, which developed mainly through the fairs of the thirteenth century, enabled mediaeval society to make a tremendous saving in currency.

"These great fairs, where the trade in the spices of the Levant and the cloth of the West was centralised, were familiar with payments by setting-off one deal against another. Very little money was actually handled at Troyes or Provins; what was exchanged was chiefly bills, and at the end of the fair the money-changers' shops became a real clearing-house. The unpaid bills could, moreover, on payment of a commission, be carried forward from one fair to another."[26]

De Roover found in Bruges thousands and thousands of clearing entries in the books of the Bruges bankers of the fourteenth and fifteenth centuries; he estimates that, at that time, bank deposits had become a real currency.[27] Bank clearings used as means of exchange and payment are called bank money because the transfer of funds is carried by mere written entries in the bankers' books.

Bills of exchange, like bank money, can be used instead of metallic money to carry out a series of money transactions. But these money-tokens constitute a fiduciary currency, because they are accepted in payment only to the extent that the people concerned have confidence in the issuer, or in the banker who carries out the clearing. This is a *private fiduciary currency*, because it is issued by private persons.

Tokens for metallic money can serve as means of exchange and payment of commodities only provided they are *ultimately convertible into metallic money*, the universal equivalent. The circulation of private fiduciary currency always implies an ultimate settlement in public currency which is universally acceptable. Each merchant is naturally alone responsible for the convertibility of his own bills. If these are ultimately not paid, the merchant goes bankrupt, and those who are left holding his bills have lost the money they advanced. Private fiduciary currency is thus, by definition, a form of credit, a *credit currency* the solidity of which—the degree of its equivalence with the metallic money of nominally the same value—depends on the solvency of those who issue it.

Origins of public fiduciary currency

There is, however, something odd in the *private* effort to make up for the inadequacy of metallic currency. Money, the universal equivalent, is by definition a *social* instrument which has to neutralise precisely that which is purely private in commodities so as to make possible a development of exchange with the minimum of restrictions

in time and space. Currency tokens the use of which depends on the solvency of individual bourgeois cannot in the long run fulfil such a social function. This is why the development of merchant capital demands the creation of *public currency tokens*, that is, the creation of a public fiduciary currency. Historically, public fiduciary currency derives from a third form of private fiduciary currency, deposit receipts functioning as bank notes. This originated in China.

The merchant's bill was known there from the time of the Chou dynasty (1134–256 B.C.).[28] In the ninth century A.D., which was marked by a severe shortage of metallic currency, the merchants arriving in provincial capitals adopted the habit of depositing their precious metals with private persons and circulating the *deposit receipts* they obtained from them.[29] This private fiduciary currency was called *fei-ch'ien*, or "flying money". The central government forbade this practice because it feared that the precious metals might disappear from circulation. As, however, the shortage of currency was genuine, the State was obliged, in the year 812, to open deposit offices itself, in the capital. With the receipts given them by the central government, the owners of these deposits could have metal coins paid to them in any of the provincial branches of the imperial offices. Later, in the tenth century, a "Bank for Easy Currency" was set up to regulate the system as a whole.

The deposit receipts issued by this bank were still made out to named individuals. But at the beginning of the eleventh century the metal coins of Szechwan province, made of iron, were hindering the circulation of commodities by their excessive weight. The merchants then decided to stop the circulation of coins completely. Sixteen rich merchant houses assembled all their metal coins and issued letters of credit, no longer by name, but *to the bearer*, covered by this stock, and replacing all the metal currency in circulation. The issue of these notes was undertaken rashly and the merchants were ruined. But the central government now intervened again and set up, in 1021, a Bank in Szechwan for the issue of *public bank-notes*. Two years later, these notes began to circulate throughout the Empire. A special bank was then set up to issue and convert this paper money. In 1161 the latter was already circulating to the value of 41,470,000 *kwan*, whereas there were only 700,000 *kwan* of metal coins. Under the following dynasties of Yang (the Tatars) and Ming, paper money remained preponderant, with many phases of depreciation and inflation. The fall of the Ming dynasty was partly due to a galloping inflation of paper money.* After this disaster, the Manchu dynasty, in the seventeenth century, abolished paper money, which was not re-established in China until the middle of the nineteenth century.

Public fiduciary currency was born in Europe in exactly the same

* See later in this Chapter, page 254.

fashion. From the fifteenth century onward, private banks in Venice and Barcelona had adopted the custom of giving deposit receipts to their depositors. When they crashed, towards the end of the sixteenth century, the *Banco di Rialto*, later the Bank of Venice, both public institutions, issued deposit certificates "to bearer", which circulated as paper money, but which soon became depreciated. The Bank of Amsterdam, founded in 1609, issued only certificates of equivalent of the metal coins deposited with it to the currency of the United Provinces. These notes remained remarkably stable down to the end of the eighteenth century. The first issues of bank notes in the strict sense were made by the Bank of Sweden in 1661.[30]

Creation of public fiduciary currency. First source: discounting

It was in Britain that public fiduciary currency, the bank note, received its classical form. In this country, too, it originated from private fiduciary currency, the *goldsmith notes*. The English merchants at first deposited their jewels and private hoards with the King. But in 1640, Charles I, struggling with ever more serious financial difficulties, confiscated their wealth. Thereafter the merchants adopted the custom of depositing their riches with goldsmiths who, in exchange, issued deposit receipts called "goldsmith notes", and then, when the goldsmiths began calling themselves bankers, "banker's notes".[31]

At first, these notes were issued for the total amount of the deposit; if the depositor withdrew part of this deposit, the note was given an additional inscription recording this withdrawal. Later, the bills were drawn up in fixed sums, and a depositor received a number of notes, the total value of which was equal to that of his deposit. Private bankers in Scotland, and the Bank of England, founded in 1697, issued notes which likewise went through these two successive stages.[32]

Now, from a certain moment onward, the Scottish bankers and the goldsmiths began lending to third parties the stock of metal currency which did not belong to them. In exchange for these loans they were given acknowledgements of debt. From that time, the fiduciary currency circulating among the public was covered not only by a stock of metal coins but also by acknowledgements of debt from third parties (one of these covering another). When the Bank of England was founded, in 1697, it issued notes covered by its stock of metal coins and by a State debt owed to it.[33]

Experience taught the bankers that bank-notes covered by third parties' acknowledgements of debt can be issued up to a definite limit (for example, three or four times the value of the stock of metal currency), because the public never all try at once to convert their bank notes into metal coins. Slowly, during the course of the eighteenth century, the Bank of England established a procedure by which the issue of bank notes was regulated both by the stock of metal currency

in its possession, and by the discounting, first, of government bonds only, and later also of merchants' bills.[34] The discounting, and later above all the re-discounting, of merchants' bills, was during the nineteenth century the chief source of the creation of bank notes, of public fiduciary currency, not only in Britain but in all the capitalist countries.

When the bank of issue discounts (or re-discounts) a merchant's bill, it pays the owner of the bill (or his bank) the face value less the interest; it thus puts into circulation bank notes for a value equal to this amount. When the time comes for the bill to be paid, it receives this sum back; the same amount in bank notes is withdrawn from circulation. The fluctuations in the volume of its collection of bills will thus determine the amount of paper money in circulation. As the volume of merchants' bills presented for discounting increases in periods of good conjuncture and declines in periods of crisis and depression, the issue of paper money covered by the discounted bills constitute a very flexible currency instrument, which makes it possible to adapt the stock of currency to the economy's need of means of exchange.[35]

Creation of public fiduciary currency. Second source: advances on current account (overdrafts)

So long as the discounting of merchants' bills was the chief form of circulation credit, the bulk of the fiduciary currency in circulation originated from the discounting and re-discounting transactions of the central banks of issue. But from the moment that advances on current account (overdrafts) replaced discounting as the main form of short-term credit—from the end of the nineteenth century in Britain, at the beginning of the twentieth century in the rest of the capitalist world, it was the circulation of bank deposits (of bank money) that became the principal element in currency circulation.

The capitalists do not in fact keep more than a small part of their circulating capital in the form of ready money. Most of it is deposited in the banks. The bankers function as their cashiers, paying out the amounts they owe and taking in the sums paid to them. All these payments are effected by cheques* or by clearing, and are thus completed without cash playing any part, through mere comparison of entries.

* The word cheque comes from the English "to check", i.e. to compare, to verify, and relates to the practice of tearing bills payable to order in such a way as to make an irregular edge which can be compared with the corresponding edge of the other half.[36] In Antiquity the same method was used with potsherds. The first paper cheques were used in Barcelona and Venice in the fourteenth century, but they were then forbidden.[37] The custom of tearing bills payable to order in such a way as to make an irregular edge was kept up in the Middle Ages for recognizances of debt, such as those which Des Marez discovered at Ypres.[38] The first English cheque that has been preserved dates from 1675.

One might suppose that this bank money originates from payments in of cash by the depositors, but this is only partly true. A large share of bank deposits do not originate from payments in actually made by the bank's clients but from advances on current account (overdrafts) granted by the bank to capitalists. These are the "loans that make deposits":

"The bulk of the deposits arise out of the action of the banks themselves; for by granting loans, allowing money to be drawn on overdraft, or purchasing securities, a bank creates a credit in its books which is equivalent to a deposit."[39]

The bank deposits thus created—or at least the current accounts—really represent *currency*, since they can be used for any transaction of purchase or payment within the country. They represent a *fiduciary currency*, because in the last resort their circulation depends on the good management and solvency of the banks, and not on the intrinsic value of the universal equivalent. And they represent a *public fiduciary currency*, because in all the advanced countries all the important deposit banks are linked to the central bank of issue by a special system which ensures that the bank money is covered by the bank notes of the central bank.

The credits given by the banks to the capitalists and which are at the origin of many current accounts, are intended for use. The banks create deposits so that these may circulate. If a bank, by granting a loan on current account to Mr. X, increases his deposit from 4 to 6 million francs, Mr. X will use these 6 millions to pay a debt to Mr. Y or buy goods from Mr. Z. These other capitalists also have bank accounts. If their accounts are with the same bank, all these transactions will take place by comparison of entries and will not require any transfer of bank notes. The deposit of 6 millions will merely be transferred from the account of Mr. X to that of Mr. Z. If their accounts are with other banks, the transfers in question will require a transfer of cash only to the extent that these other banks do not have to transfer an equal amount to Mr. X's bank. Actually, clearing houses specially set up for this purpose reduce to the absolute minimum any transfer of cash from one bank to another.*

Banks, finally, are able to increase their loans on current account

* The cashiers of the London banks, who had the task of transporting the amounts of money needed for settlements between these banks, adopted the custom, in the second half of the eighteenth century, of meeting together over drinks in order to compare their accounts and hand over only the difference between the amounts due and the amounts to be received, and vice versa. Starting in 1775 the bankers themselves imitated their example, which gave rise to the Clearing House. Clearing houses have developed in all the big cities of the world. Their transactions involve huge sums. In 1945, for instance, the Federal Reserve Banks carried out in the U.S.A. clearing operations for a total of 688 billion dollars.[40]

and thus create bank money, to the extent that other banks grant them credit or the central bank allows them to increase their debit accounts with it.[41] Experience has shown bankers that in normal times the public does not withdraw its cash from the banks in excess of a relatively small fraction of the total amount deposited.* It is thus sufficient that these deposits should not exceed a definite relationship with the liquid assets, called the cash ratio, or liquidity ratio (i.e. minimum cash in hand, expressed as a percentage of the total assets) for the banks to be able in normal circumstances to give loans on current account and create bank money. At exceptional moments the central bank has to step in to prevent the collapse of this credit system from entailing the collapse of the entire currency system. In order to avoid rashness, the majority of advanced countries lay down a "cover ratio" fixed by the government.†

In Britain this has been 8 per cent since 1946.[43] In the U.S.A. it is 24 per cent for current accounts in the big banks, in Belgium 4 per cent for short-term deposits, in Sweden and Italy 25 per cent, etc. Furthermore, in Belgium 65 per cent of the total of current accounts have to be covered by public bonds.[44]

It is thus apparent that bank money makes up a large share of the stock of currency, that is, of the totality of means of exchange and payment circulating in a particular country. In 1952, bank money constituted 78·6 per cent of this stock in the U.S.A., 74 per cent of it in Britain, 65 per cent in Australia, 51 per cent in Italy, etc.[45] To this must be added that bank money usually circulates more rapidly than bank notes.[46]

Creation of public fiduciary currency. Third source: public expenditure

The public fiduciary currency created by discounting or by overdrafts corresponds to needs—for credit, exchange, payment—inherent in the economic system. The fact that the State regulates the creation of this fiduciary currency corresponds to the social character of money, which becomes more and more marked as exchange-relations become increasingly interlocked and complex in modern capitalism. But this regulation, which is indispensable for the proper functioning of the economy, can at the same time give rise to many disturbances.

The State which regulates the issue of paper money and ultimately determines the volume of the stock of currency as a whole is actually itself both buyer and seller, and so needs means of exchange

* These withdrawals are mainly made in order to pay wages and salaries or to meet the needs for unproductive consumption of the capitalists and other savers.

† Distinction is made between the *cash ratio* (ratio between cash in hand and total deposits) and the *liquidity ratio* (ratio between holdings of cash, money at call or short notice, and bills discounted on the one hand, and total assets on the other).[42]

and payment. From the beginnings of public fiduciary currency, the governments which regulate its issue have been subjected to the temptation to use it at the same time to meet their own needs. The first experiments in issuing paper money have invariably led to inflationary disasters. This happened with China's paper money which, under the Tatar emperor Kublai Khan, attained the circulation, fantastic for those days, of 249,652,290 *kwan* issued.[47] It was the same with the first experiments in others continents, such as the "card money" in the British and French colonies in America in the seventeenth century, the "Continental money" issued during the American War of Independence, the *assignats* issued during the French Revolution, etc.[48]

Even in a bourgeois state conducted according to principles of strictest monetary orthodoxy, it is inevitable that a certain seasonal and cyclic movement of increased need for disposable funds (e.g. on the eve of the dates for payment of civil servants' salaries) should lead the Treasury to increase its debts to the central bank which in turn will increase the stock of currency. This extra mass of currency is usually re-absorbed in time. But when the State increases the circulation of currency in order to finance its long-term expenses or, still worse, its budgetary deficit, risks of loss of value of the currency arise in so far as no extra mass of commodities corresponds to this extra mass of currency in circulation.[49]

Socially-necessary stock of currency

The whole pyramid of bank money is thus built up on a basis of paper money. It is the same with private fiduciary currency, as we have already shown. All credit money needs, as means of final settlement, a definite amount of currency. In reality, it is a question of a mass of bills which, after clearing, have to be honoured financially. The mass of currency thrown into circulation in a capitalist society thus has to fulfil a dual role, that of constituting the equivalent of the *commodities* which enter into this circulation (money acting as means of circulation), and that of representing the value of the *bills* which fall due, taking into account those which neutralise each other (money acting as means of payment). Here we meet again the two functions of money already described.

Money as means of payment, effecting the payment of bills, like money as means of circulation, has a definite velocity of circulation: the same sum of money may, passing from hand to hand and from firm to firm, effect a successive series of payments in a given period of time. We thus obtain the following formula for the amount of currency needed to settle all payments due (e.g. during one month):

$$\frac{\textit{Total of payments due, minus total of payments which cancel each other out}}{\textit{Velocity of circulation of means of payment}}$$

By adding the stock of currency needed for the circulation of commodities and the stock needed for the payment of bills, one can determine the total stock of currency which is essential for the proper functioning of the capitalist economy. It must be remembered that the same bank note may be used successively to purchase a commodity, and then to enable the seller of this commodity to pay a bill. The stock of currency needed by the economy for a certain period of time must therefore be equal to:

$$\frac{\textit{The sum of the prices of the commodities in circulation}}{\textit{The velocity of circulation of money as means of circulation}} + \frac{\textit{The sum of payments due, minus the sum of mutually-cancelling payments}}{\textit{The velocity of circulation of money as means of payment}}$$

The sum functioning successively as means of circulation and means of payment.

It follows directly from this formula that the *stock of currency necessary* for the proper working of the economy is a very elastic quantity, which varies uninterruptedly during the course of a month. On the eve and at the moment of the first day of each month, for instance, very much more currency, as means of payment, is needed than eight days later. The stock of currency necessary likewise fluctuates in accordance with the ups and downs of the conjuncture. It also follows that a currency instrument of a *very flexible* kind is needed in order that it may be rapidly adapted to the constantly changing needs of the economy.

In the nineteenth century a series of credit crises were caused in Britain by the fact that the Bank of England was obliged by the Peel Act to keep within a rigid maximum in its issuing of banknotes. This act had to be suspended on each occasion.[50]

In the twentieth century bank money has proved a currency instrument even more flexible than paper money. When the mass of bank notes and current accounts remains stationary, while the demand for circulation credit and means of payment is increasing, the increase in the *velocity of circulation of bank money*—that is, the use of the same deposit for the increased number of transfers in a given period of time—offers a solution to the difficulty. This is what happened in Belgium in 1950 and at the start of 1951, when this velocity of circulation increased by 20 per cent.[51]

The circulation of inconvertible paper money

Bank money is based on public paper money. So long as the latter is convertible and remains based on the stock of metal currency in the bank of issue, the use of token currency does not present any prob-

lems regarding the nature of currency. The latter is continuing to serve as universal equivalent by virtue of its own intrinsic value. The fact that only a fraction of the banknotes are covered by the metal in hand (just as only part of the bank money is covered by banknotes) merely represents a social saving in circulation devices, a saving made possible by the laws of behaviour on the part of the public which have been discovered empirically.

These laws reflect in their turn *the increasing socialisation of the capitalist economy, the more and more objective nature of money.* In order that the working of the currency mechanism be not hindered it is sufficient to keep the use of convertible fiduciary currency within the limits of the socially necessary stock of currency. Any issue which went substantially beyond this would cause an outflow of precious metals and a stoppage of convertibility which would doom the currency to devaluation.

By starting from this more and more objective nature of modern capitalist money it is possible to grasp the problem of the circulation of inconvertible paper money. This does not necessarily entail a fall in purchasing power, an obvious depreciation. Experience showed this already in the nineteenth century. The French franc was made inconvertible between 1870 and 1877, but it lost hardly 1·5 per cent of its value in relation to gold and to convertible currency.

In fact it is enough to restrict severely the issue of inconvertible paper money (and the creation of bank money) to the currency stock which is socially necessary, in order to avoid in the main any manifestation of fall in the value of money. All the currency thrown into circulation being absorbed by current economic transactions—exchanges and payments—an inconvertible paper currency of this kind circulates representing only the same amount as a convertible paper currency would have represented in its place, and *within the limits of the national market* no disturbance can occur.

Some writers have seen in this phenomenon proof that money has never been a commodity with its own value, but has always had a "rate" determined by the public authorities.[52] However, nineteenth century experience, especially in countries with bimetallic currency, showed that currency fluctuations were caused by fluctuations in the intrinsic value of gold and silver: "After the great gold discoveries in California and Australia [in the 1850s], silver was an expensive metal and hard to keep in circulation . . . Soon, however, an abrupt reversal took place. From 1842 on, metallurgical processes were discovered which improved the recovery of silver from lead ones. These were widely used after what are now the Rocky Mountain States were taken over by the United States from Mexico in 1848 and 1853. A flood of silver cheapened the metal in relation to gold, and silver was progressively demonetised."[53]

In reality, the transition from the money based on the gold (or silver) standard of the nineteenth century to *partly inconvertible* money after the First World War corresponded to two quite different phenomena. On the one hand, a real currency depreciation caused by the huge expenditure on arms and war, together with the burden of a constantly growing public debt. This currency depreciation even hit the U.S.A., the country possessing a big share of all the world's gold reserves, since in purchasing power a dollar in 1958 was worth less than 50 cents before the war (of 1939). On the other hand, the increasing intervention of the State in economic life, the growing organisation of certain sectors of the economy by the State in the interests of the bourgeois class as a whole, and thereby the elimination of the "pure" conditions of a market economy, an elimination also achieved through the intervention of other "organising" and "conscious" forces, the cartels, trusts, holding companies and monopolistic groupings in general.* A currency with an intrinsic value is essential to a pure market economy based on exchange. The more elements of "economic organisation" are introduced into the economy, the more completely can an "abstract" currency, a money of account, be substituted for this currency of intrinsic value.[54]

But the elements of organisation that capitalism introduces into the economy during its period of decline are disparate and contradictory. They abolish the anarchy and automatic working of the market at one level, only to reproduce them at higher level. In the days of currencies based on the gold standard, many of the payments made, not only on the national market but also on the international market, were carried out without the use of precious metals. In the days of inconvertible or only partly convertible national currencies, international settlements are more complicated; gold (or currency convertible into gold) is insisted on more than before for payments on the international market.

Consequently, even under the régime of inconvertible paper money, the precious metals, commodities with intrinsic value, remain ultimately the only universal equivalent on the world market. A "managed" world currency, the only one which would finally sever the instrument of circulation from its metallic base, cannot be created in a capitalist economy. It can result only from a world-wide planning of the economy, the outcome of the world-wide victory of socialism.

This is why modern currencies are not in reality completely severed from a metallic base, even when the law lays down that no quantity of gold may be obtained in exchange for a banknote (become paper money).† Through foreign trade and the movement of international

* See Chapters 12 and 14.

† It is interesting to observe that this duality has been given curious applications in the courts. French law normally recognises only the "nominal" franc in all disputes that arise between persons resident in France. But as soon as it

payments, every national currency is linked at once to gold and to other national currencies, and the fluctuations in its relative purchasing power, the fluctuations in its rate on the free or black market, are indices of the extent to which it is or is not depreciated. This depreciation results from a property which is peculiar to public fiduciary currency alone: *the solidarity, the collective equivalence, of all the banknotes printed by the State.*

Metallic currency, a product of human labour, possesses an intrinsic value. The increase in its circulation, over and above the stock of currency socially necessary, does not lead to its becoming depreciated but to its being hoarded. It is the same with convertible banknotes, the excessive issue of which may furthermore lead to a flight of gold. *Private* fiduciary currency, issued by insolvent capitalists, brings about its own complete depreciation along with the bankruptcy of the issuer, but does not automatically depreciate the private fiduciary currency issued by other private persons.

Public inconvertible paper money, on the contrary, is subject to depreciation as soon as an excess issue takes place, not accompanied by an equivalent increase in the commodities in circulation. All the banknotes being depreciated together, the increase in the currency in circulation, far from leading to their being hoarded, causes, on the contrary, their de-hoarding. Their value thenceforth depends on their declining purchasing power. The quantity theory of money here applies with a certain amount of validity.*

As this currency is now depreciated, people try to get rid of it and instead to hoard precious metals, metallic money or other, non-depreciated paper money.† Private hoarding of gold between 1946 and 1951 was estimated at an annual average of 250 million dollars. In this way Gresham's Law made itself felt: "bad" money (more or less depreciated) drove good money out of circulation.

The automatic rise of prices as a result of the depreciation of paper money occurs only in a country where price-formation is more or less "free", i.e. determined by economic forces alone. The inconvertible

is a question of international disputes, only the gold value counts, whether this be to the advantage of the French parties to the dispute (dispute about Serbian and Brazilian loans before the Hague Court in 1929, and about the Norwegian loans in 1957) or to their disadvantage (loan issued by the *Messageries Maritimes*).[55]

* On the quantity theory of money, see Chapter 18.

† The depreciation of paper money is a very relative notion. Between 1938 and the end of 1946 the bank notes in circulation in the U.S.A. increased by 400 per cent, whereas industrial production barely doubled. The dollar lost nearly 40 per cent of its purchasing power. This was an obvious case of depreciation. Nevertheless it was not so serious as the depreciation of other paper currencies, such as the French franc and the lira, so that dollar bills were hoarded in France and Italy.

banknotes can be imposed on a country for a certain time, along with strict regulation of the exchanges, which makes it possible to limit to the minimum the increase of prices, in spite of a substantial issue of paper money, shown only on the free currency market abroad and the "parallel", illegal markets in the country itself. This was the case in Nazi Germany.[56] However, a system like this of "deferred inflation" implies other contradictions which need to be studied separately, within the framework of the "managed" economy and the economy of rearmament and war.

The balance of payments

Even when a paper currency is "solid", i.e. when it has not been issued in excess of the socially *necessary stock of currency*, and when it possesses a gold cover traditionally regarded as adequate, it may lose its convertibility into gold. This happened to the pound sterling after 1931. The cause of this inconvertibility lies in the *dual function of gold*, at once cover for paper money and also sole international means of payment. Just as private fiduciary currency circulates within a country only to the extent of the private issuer's solvency (i.e. his capacity to pay a bill when it falls due), public fiduciary currency circulates internationally only to the extent that the issuing country is solvent, that it has the capacity to settle in gold (or in currency convertible into gold) its debts to other countries.

This does not mean that every purchase made abroad entails a transfer of gold to the selling country. On the international plane as on the national and local plane a clearing system operates which implies the transfer of the *net balances* only between the amounts due to the foreign country and the amounts due from it to the country in question. These net amounts appear in the balance of payments, which is mainly made up of the following entries:

(*a*) The trade balance, i.e. the difference between exports to a given country and imports from it. If exports exceed imports in value, there is a credit entry in the balance of payments, if the opposite, there is a debit entry.

(*b*) The movement of capital, i.e. the difference between the outflow and inflow of capital. Into the first of these categories go the purchase of shares, factories and bonds abroad, and foreign landed property, together with the placing of capital in foreign banks, and the sending abroad of dividends, interest, assurance premiums or insurance for foreigners who own property in the country in question. Into the second go the purchase of shares, bonds, factories, land in the country in question by foreigners who bring in their capital, the placing of foreign capital in national banks, the repatriation of dividends, interest, assurance premiums, etc., by residents of the country, and the sending of gifts, public and private, from abroad to the country

in question. If the import of capital exceeds the export, this will mean a credit entry in the balance of payments; if the reverse, a debit entry.

(*c*) Maritime traffic. Ships of the given nation which carry goods abroad are paid for the freight in foreign currency which they bring into the country. Contrariwise, foreign ships which bring goods into the country are paid in currency which they take out of the country. If the first total is greater than the second, there will be a credit entry in the balance sheet; if the other way round, a debit entry.

(*d*) Tourist traffic. If the tourists of the country in question spend more money abroad than foreign tourists spend when they visit this country, the entry will be on the debit side. If the opposite is true, it will be on the credit side.

(*e*) The movement of immigration and emigration. If immigrants bring more funds with them than emigrants take out, the entry will be on the credit side; if the contrary, there will be a debit entry. Etc.

So long as a country has normally a credit balance of payments, the convertibility of its paper currency is secured by a relatively modest stock of metal. But as soon as the balance of payments begins to become regularly a debit balance, only a substantial stock of metal can, as a rule, maintain the convertibility of the paper currency. Otherwise, the outflow of gold risks causing speculation and panic.[57] Finally, if the majority of the commercially important countries abandon the gold standard, as happened during the 1930s, the other countries are compelled to follow suit, since otherwise their national currencies become the object of international speculation and are systematically withdrawn from circulation.

The balance of payments affects the volume of money in circulation, and thereby, when the paper currency is partly or totally inconvertible, the purchasing power of money. A permanent deficit in the balance of payments is the product of inflationary tendencies, a surplus is the product of deflationary tendencies.* However, in the short run, when the Central Bank pays exporters the equivalent of the currency surplus it accumulates, a surplus in the balance of payments may provoke an inflationary tendency, because this extra purchasing power finds no counterpart on the market.[58] To avoid these effects, the surplus in the balance of payments would have to be neutralised by an increase in domestic saving.[59]

* A credit balance of payments over a long period corresponds in fact to a *sterilisation of purchasing power*; the gold which is accumulating in the vaults of the central bank could have been used to import various goods, that is, to create extra income. In the same way, a persistently deficitary balance of payments expresses the fact that *surplus purchasing power*—inflation!—has been created in the country, in exchange for which more and more goods and services have to be imported from abroad.

Central banks and bank credit

So long as a currency is based on the gold standard, the role of the issuing institution consists in safe-guarding first and foremost the convertibility of the currency. The restriction of credit that it can bring about by raising the discount rate is conceived in the first place as a means of restricting the fiduciary circulation, and only indirectly as a means of correcting the excesses of a boom. In the age of inconvertible paper money, however, the tasks of the central bank extend to become a function of supervising the entire economy. It has in fact to regulate the credit policy of the commercial banks, which, in their turn, influence the whole progress of the economy.[60]

The central banks of the nineteenth century had as cover the banknotes which they issued, their supply of gold (or silver), and the bills they discounted. They influenced the volume of credit by means of the discount rate.

The economic and financial instability characteristic of the epoch of decline of capitalism, after the First World War, compelled the central banks to resort to extra cover and to different methods of influencing credit. On the one hand the large private banks possess considerable reserves which render them largely independent of the discounting policy of the central bank. On the other, in a period of marked depression, the mere lowering of the discount rate is no longer an adequate stimulus to increase the volume of credit, exchanges and circulation of money. In these conditions, the central bank resorts to an old technique, which was already in extensive use by the public banks of the seventeenth and eighteenth centuries: the policy called that of the "open market".

This policy had always been permitted in the U.S.A. but was practised on a large scale particularly after 1933. It was authorised by a special act in Britain in 1931, and in France and Belgium in 1936. It provides that the central bank may buy and sell government stock (loans, treasury bonds, etc.) on the open market. When the government wants to effect a contraction in the volume of money in circulation (credit), it can sell government stock, which results in an ingathering (and so a sterilisation) of banknotes, or, what comes to the same thing, a reduction in the current credit accounts of the private banks with the central bank, and a reduction in the amount of bank money that these banks can henceforth create.[61] Contrariwise, when the government wants to enlarge the volume of money in circulation (credit) it must buy up government stock, which results in an issue of new banknotes or an increase in the credit accounts of the private banks with the central bank. The open market system can, however, easily degenerate into a means of covering state expenditure due to a budget deficit.[62]

It is in the U.S.A., where the depreciation of the currency has

nevertheless gone less far than in Europe, that government stock today represents the chief corresponding value to the bank money of the private banks, and a far more important entry in the assets of the central bank than the private obligations:

"Until 1933, the principal way in which money came into existence was through short-term borrowing by business concerns. In 1929, the loans of commercial banks accounted for nearly two-thirds of the country's supply of money . . . At the end of 1950, they accounted for less than one-third . . . The largest single source of money supply is borrowing by the government. The holdings of government obligations by commercial banks are half again as large as their short-term loans."[63]

However, the supervisory function that the central bank can exercise in its capacity as ultimate source of cash is not absolute. It can either rigidly determine the amount of currency or else rigidly determine the cost of money-capital (cash), that is, the rate of interest. The first path was followed in the nineteenth century, the second is being followed now.[64] But to regulate simultaneously and rigidly *both* the amount of currency *and* the rate of interest is impossible in a capitalist economy.

Currency manipulations

The dual function of gold, that of serving as metallic basis to paper money and that of acting as international means of payment, makes this precious metal an instrument of economic and commercial policy. When the national currencies are freely convertible into gold, their respective value is determined directly either by the metal content of the coinage or else by the gold cover of the banknotes, which are mere tokens for the precious metals. When the convertibility of paper currencies is more or less abolished, these currencies acquire a *forced rate* in relation to foreign currencies. This rate is usually determined by international conventions, but it can be modified unilaterally. If it corresponds to the actual relationship between the purchasing power of the two currencies, it will usually be respected and will undergo only slight ups and downs, caused by temporary fluctuations in the balance of payments between two countries, in the reciprocal supply and demand of their respective currencies.[65]

If this rate is, on the contrary, an artificial one, a "parallel", "free" or "black" market will appear, on which the currency thus officially over-valued will be depreciated in exchange for other currencies.

A government may attempt to bring about internationally such a depreciation, with the aim of favouring its exports, either in order to improve the balance of payments or to help the general state of business. As the rate of exchange of an inconvertible currency is a forced rate, the government can lower it by mere decree. It can

announce arbitrarily that henceforth there will correspond to the unit of currency a gold equivalent devalued, say, by 20 per cent, and that consequently, foreign currencies will henceforth be quoted at a rate 25 per cent higher than before. A depreciation of the currency effected like this, called devaluation, causes the prices of a country's products in foreign markets to fall.

American and British cars are competing on the Australian market. Let us suppose that the current selling price of the American car most frequently sold in Australia is 3,000 dollars, which is worth £A750, at the rate of £A1 = 4 dollars. The British cars, which cost £600 sterling will be sold at £A750 too, if £1 sterling is worth £A1·25. But if the pound sterling is devalued by 20 per cent, this same car will be sold at £A600, without any reduction in the cost of production or the manufacturers' profit.

The use of devaluation as a weapon in competition comes up against two obstacles, however:

(a) It risks starting a snowball, with all countries trying to improve their trade balance in the same way. This is what happened after the devaluation of the pound sterling in 1931, which entailed the devaluation of 34 other national currencies between 1931 and 1935. The same phenomenon recurred after the devaluation of sterling in 1949.

(b) Every country has not only to export but to import as well. If devaluation reduces export prices, it increases the prices of imports. It thus favours the industries working for the export trade using home-produced raw materials, as against the industries working for the home market using imported raw material, and so leads to a redistribution of the national income. These effects can be mitigated if substantial stocks of foreign raw material have been accumulated before devaluation, or if a fall in the price of these goods is expected, a favourable change in the "terms of trade".* In the end, the elasticity of the foreign demand for the products exported by the country devaluing its currency will prove decisive.[66]

A currency policy opposite to devaluation can likewise tend to bring about an increase in exports. Without modifying the backing of the country's paper money in gold or currency, it is possible to cause a fall in prices on the home market by restricting credit and the amount of money in circulation, lowering nominal wages, etc. This fall will then react on export prices. As a rule, however, this policy of *deflation* increases the stagnation of business and the degree of unemployment within the country,[67] so destroying all the advantages to be expected from an increase in exports, which, moreover, are neutralised, as with devaluation, by international chain reactions:

"If pressure on money wage rates improves a country's balance

* The expression "terms of trade" is used to mean the relationship between the price index of exported goods and the price index of imported goods.

[of payments], it becomes possible for home producers to gain advantages at the expense of foreign producers, and thus to shift the incidence of unemployment on to other countries. These other countries who find their exports declining and their imports rising will react to the resulting unemployment by putting pressure on their own wages. If, however, wage cuts in country A are followed or outpaced by wage cuts in country B the former does not obtain a net advantage."[68]

In fact, after the outbreak of the economic crisis of 1929, there followed one after the other two international chain reactions, first a deflationary one, then one of devaluation.

The manipulations of paper currency by governments who try to use it as a weapon against the trade cycle have created illusions as to the possibility of correcting serious excesses in the conjuncture by means of a "managed currency". By increasing the amount of fiduciary money in circulation and lowering the rate of interest, the banks of issue can in fact encourage an expansion of credit by the commercial banks, which is expected to favour economic recovery when there is depression.

However, the influence of the rate of interest on economic conjuncture should not be exaggerated. An investigation undertaken in the U.S.A. shows that the interest paid by the entrepreneur represents there a very small element in the cost of production: 0·4 per cent of the cost of production of manufactured goods: 0·2 per cent of the cost of production in the building trade; 0·8 per cent of that of mineral products; and 0·2 per cent of distribution costs.[69]

It is an illusion to suppose that the banks can ensure on their own (with the aid of the central bank) an expansion of credit and of the stock of currency. They can at most grant loans more easily and at lower cost. But for the stock of currency to increase effectively by way of credits on current account, it is further necessary that the entrepreneurs should *effectively use* the facilities thus provided. It is the entrepreneurs and not the banks who are really the initiators of the expansion of bank money at the start of recovery.[70] Now: "In a [deep] depression things look so gloomy that no conceivable drop in the rate of interest is likely to induce [a businessman] to embark upon any but the most blatantly desirable adventures."[71]

It is then, in the last analysis, the factors that determine the economic conjuncture as a whole that explain the transition from a depression to an economic recovery—and among these factors the manipulation of the stock of currency and the rate of interest play only a subordinate role.*

Three forms of inflation

Depreciation of the currency is as old as public currency itself. It is

* See Chapter 11.

engendered by the needs of the State which mints the coins or issues the notes. Its oldest form is the falsification of the alloy, base metals being substituted for precious ones. Owing to the sharp oscillations in prices to which it gives rise, it disorganises the economy of any society based on petty commodity economy. The Czech chronicler Cosmas, who died about 1125, called it "worse than the plague, more disastrous than an enemy invasion, than famine or other calamities."[72]

Paper money, which seems to free itself from its metallic basis, offers by its very nature a strong temptation to depreciation, either intermittent or continuous.

Accordingly, in the imperialist epoch, this depreciation or inflation has become a quasi-universal phenomenon. Several degrees of gravity need, however, to be distinguished.

Moderate inflation corresponds to an issue of fiduciary currency (or an increase in the stock of currency by other means) without any immediate equivalent increase in goods or services, but in circumstances in which the volume of employment and production increases. For this to happen a certain amount of unemployment and a reserve of unemployed means of production are needed, among other things.[73]* When the State uses the increased stock of currency to buy goods and labour-power which serve to make means of destruction—i.e. goods which do not come back into the reproduction process—it can, by imposing a strict control of prices, *conceal* the inflation for the time being, until the disproportion between the amount of money in circulation and the actual circulation of commodities breaks the ephemeral equilibrium. The balancing equivalent to this price-control has in these conditions to be the sterilisation of a part of the public's income in the form of forced saving.[74] In this case, *concealed* or "deferred" *inflation* represents a promise to increase the circulation of goods some time in the future through an increase in home production converted back to normal uses, or else by the plundering of foreign countries. If this reabsorption of purchasing power without any counterpart does not take place, the inflation effected will eventually bring about a rise in prices.

When a substantial issue of inflationary paper money is accompanied by a stagnation or a diminution in the circulation of purchasable commodities over a prolonged period—notably, when full employment has already been achieved, or in the setting of a war economy—the rise in prices takes place at once, and starts a vicious circle. *Inflation feeds on itself.* Depreciation of the currency leads to a rise in prices, this increases the budget deficit, which in turn is covered by a fresh inflationary issue of paper money, and that entails a new

* See Chapter 10, section "War Economy", and Chapter 14, section "A crisis-free capitalism?"

wave of price increases. The depreciated fiduciary currency does not go out of circulation any more. Everybody who can tries to get rid as soon as possible of this depreciated currency and hoards *real values*: gold, foreign currency, jewels, works of art, industrial shares, property in land and buildings, etc. The wage-earning classes are hardest hit.[75]

When the State's expenditure begins to exceed its income by a big margin, as the result of a lost war, occupation costs, reparations to be paid, etc., what appears is *galloping inflation*. The depreciation of the currency goes from bad to worse every day, if not every hour. Banknotes are issued with astronomical face-values, and depreciate faster than they can be printed. Exchanges by means of money grow fewer and fewer, and people go back to barter. Industry risks being unable to reconstitute its capital and no longer realising surplus-value if it exchanges commodities for such depreciated currency. Its products are therefore withdrawn from the market and stored, which brings about a stoppage in the economy and the complete collapse of the currency. These phenomena occurred in Germany in 1922–23 and in 1945–48, in China in 1945–49, in Rumania and Hungary in 1945–47, etc.*

Purchasing power, circulation of currency, and rate of interest

When interest is seen as "the rent for money" and it is thought to depend on the supply and demand of *cash*, there is a temptation to seek some ratio between the amount of currency in circulation and the rate of interest. But this is to forget that the rate depends on the supply and demand of *liquid money capital* and that definite *social* conditions are needed if the currency in circulation is to be transformed into *capital*. In fact, this mass of currency is divided socially into two major categories:

(a) The amount corresponding to the wages and salaries of workers and other employees, together with that part of the capitalists' funds earmarked for their expenditure as private consumers.

(b) The amount corresponding to the circulating capital of enterprises, profits not yet reinvested, depreciation funds of fixed capital not yet used, and "savings" from all sources.

The first category does not represent in any way a supply of liquid money-capital, but is instead a *demand for consumer goods*. The second category may represent both a *demand for means of production* and a *supply of liquid money-capital*.[76] It is only through the quantity of this second category of currency in circulation that the rate of interest may effectively influence the proportion of money-capital that will be hoarded, the proportion that will be lent to banks or to industrial and commercial firms, and the proportion that will be directly used by the owner for buying means of production. But this

* On the inflationary tendencies inherent in declining capitalism, see Chapter 14.

allocation of the mass of money-capital between different destinations will not depend exclusively, or even primarily, on the rate of interest but on the general state of business (the exact stage in the industrial cycle, the rate of profit, the ratio between rate of profit and rate of interest, etc.). "It cannot be asserted that an increase in the stock of money causes the rate of interest to fall and a diminution of the stock of money causes it to rise. Whether the one or the other consequence occurs always depends on whether the new distribution of property is more or less favourable to the accumulation of capital."

"There is no direct connection between the rate of interest and the amount of money held by the individuals who participate in the transactions of the market; there is only an indirect connection operating in a roundabout way through the displacements in the social distribution of income and wealth which occur as a consequence of variations in the objective exchange value of money."[77]

This does not mean that expansion of the volume of currency plays only a secondary role in the evolution of capitalism. On the contrary, its expansion is an essential condition for this evolution, for two reasons.

On the one hand, the tremendous increase in production and productivity which is characteristic of capitalism would have been impossible without a corresponding increase in the stock of currency, independently of the ups and downs of the exploitation of mines of precious metals.[78]

On the other hand, given the influence it exercises on the level of prices, the expansion of the stock of fiduciary and bank money determines the particular form taken by the redistribution of the national income, i.e. the *increase in the rate of profit* which occurs at the beginning of every economic recovery and without which this recovery would not be possible in a capitalist economy.

Economists such as Von Mises and Schumpeter have sufficiently described the phenomenon they call *forced saving*.[79] Forced saving, i.e. the reduction in the purchasing power of wages through depreciation of the currency, is indicated by Von Mises as a source of the formation of capital. And in this indirect way these writers, who reject any theory of surplus-value based on exploitation, recognise that capital is not the product of the thrift and self-sacrifice of the capitalists, but of the forced saving and sacrifices *imposed on the wage-earners by the way capitalism works*:

"One class has, for a time, robbed another class of part of their incomes; and has saved the plunder. When the robbery comes to an end, it is clear that the victims cannot possibly consume the capital which is now well out of their reach. If they are wage-earners, who have all the time consumed every penny of their income, they have no wherewithal to expand consumption. And if they are capitalists,

who have not shared in the plunder, they may indeed be induced to consume now a part of their capital by the fall in the rate of interest; but not more so than if the rate had been lowered by the 'voluntary savings' of other people."[80]

In other words, and paradoxically, only a fall in the rate of interest *accompanied by a rise in the rate of profit* at the expense of the wage-earners (i.e. of their purchasing power) constitutes a real stimulus to capitalist production.

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CHAPTER NINE

AGRICULTURE

Agriculture and commodity production

THE development of agriculture lays the foundation for a real division of labour, the separation of town from country, and for generalising exchange-relations.* But agriculture long remains outside the mode of production which it has engendered. Long after petty commodity production has appeared in large towns, centres of international trade, production of use-values continues to predominate in the countryside, only a few leagues from these metropolises. Only the surplus of the production of a few farms is sent to market.

When the Roman Empire undertook to ensure the feeding of the Roman proletariat, together with its numerous Legions, the trade in wheat, oil, wine and olives experienced a great expansion. The oscillations in the trade in these commodities have even been regarded by some authors as the decisive index of the decline of the Empire.[1] But this was actually a matter of providing supplies not for an anonymous market but for the State,[2] and, furthermore, supplies which were unpaid for or paid for at a very low price,[3] and thus a direct or concealed form of taxation. It was only in the centralising and transport of these masses of agricultural produce that merchant capital played a big part. The State in its turn distributed this produce free to the population of big centres such as Rome and Byzantium and to the Legions. In this way the entire cycle of supply remained outside the realm of commodity production. The latter appeared, so far as agricultural produce was concerned, only in the sale on the local markets of the surpluses of the peasants and nobles, and in the sale to the State of the produce of the slave plantations in Sicily. It was, generally speaking, the same in all pre-capitalist societies.

When, from the sixteenth century onward, money economy became general in Western Europe, commodity production extended more and more in the countryside. At the same time, the development of capital gave rise to a new social class, the farmers. These men did not want land as a means of obtaining their subsistence; they wanted it as a basis for producing agricultural *commodities*, the sale of which would bring in a *profit*.

Domestic industry and rural crafts, heavily attacked by the products

* See Chapter 1.

of large-scale factory industry from the eighteenth century onward, began to fade away. This evolution was fully completed in Western Europe only during the nineteenth century. In Eastern Europe and other economically backward parts of the world, the corresponding evolution took place only at the end of the nineteenth and the beginning of the twentieth centuries. It is today far from complete in all countries. Nowhere, moreover, has the production of agricultural commodities completely done away with the production of use-values, since even in highly-industrialized countries like the U.S.A., Germany and Belgium, subsistence farmers still exist to this day—i.e. peasants who sell on the market only the surplus of their production (their numbers were estimated, in the U.S.A., at 1,250,000 families in 1939).[4]

Pre-capitalist rent and capitalist ground-rent

In civilised pre-capitalist society agriculture constitutes man's chief economic activity. Ground rent is therefore the essential form of society's surplus-product. It is produced by agricultural producers who, in practice, dispose of their own means of production and possess at least a customary right to their land, in exchange for which they surrender part of their labour-time (labour-service) or of their production (rent in kind) to the property-owning classes. This division of the peasant's product into necessary product and surplus-product (ground rent) takes place wholly outside the market, in the sphere of the production of use-values.

In pre-capitalist society, the transformation of ground-rent from rent in kind into money rent is already in itself a sign of social decomposition. It presupposes an extensive development of the production and circulation of commodities, and also of the circulation of money. It is by selling part of their production that the peasants obtain the money they need to pay this new form of rent that they owe to their feudal lords. Although, however, commodity production is necessary for money rent to appear, the latter remains quantitatively independent of market conditions. What is typical of it, and situates it at the end of the evolution of *pre-capitalist rent*, which always has this characteristic, in all its previous forms, is that it is *fixed*, and, thereby, independent of the movement of prices and of the total money income of the producer.[5]* It was precisely to the extent that rent remained fixed that the peasants were the great beneficiaries of every period which saw a marked rise in agricultural prices (notably the period between the beginning of the thirteenth and the middle of the fourteenth centuries).[6]

Moreover, in the epoch of pre-capitalist rent, the land itself is only

* This naturally does not mean that pre-capitalist rent remains fixed during entire centuries. But it does not fluctuate from one harvest to another.

by way of exception regarded as an investment for money-capital which is expected to bring in an income proportional to this capital: "In the barbarian period and the first part of the feudal period, only a small part of the land was freely negotiable: immense areas, left as forest and grassland, were royal domain; other huge areas were the inalienable property of the Church and the monasteries; and even the secular possessions were mostly tied up with a whole hierarchy of relations between those who granted land and those to whom it was granted, whereby their alienation, though not completely impossible, was nevertheless hindered in a thousand ways. No less fixed were the relations between owners and cultivators. As regards the latter, the tie of custom took the place of the bond of contract, reducing the great majority of the workers on the land to the condition of *coloni* tied to the soil, who could not freely leave the land and yet could not be evicted from it, either."[7]

Capitalist ground rent is quite different from this. It appears in a society in which the land itself and its main products have become commodities. It results from the investment in agriculture of capital which has to bring in the average profit. Like capitalist industry it thus presupposes a separation of the producers from their means of production. It further implies a separation between the basic means of production and the farmer-entrepreneur, between the owner of the land and the owner of capital. It is in this circumstance that it is distinguished and is separated from capitalist profit.

Origins of capitalist ground-rent

The origin of a *market for agricultural produce* in Europe is intimately linked with the development of the towns in the Middle Ages. An initial development of trade disorganised the manorial supply system, and favoured the appearance of these first local territorial markets:

"The lord's manorial marketing system was giving way to the organisation of a local territorial market slowly being worked out. It was found unprofitable to cart corn long distances to a home manor for consumption, or to a market centre within the manorial group, when good market places had to be passed on the way, and when, perhaps, the corn was finally deposited in a district of a large surplus, and therefore low price. In other words, the territorial market gradually cut in upon the manorial corn supply system, and ultimately supplanted it."[8]

This evolution was a slow one, however; it was only in the second half of the fifteenth century that real local markets became predominant in Britain.[9] Moreover, the formation of territorial markets was hindered by the supply policy of the towns, which endeavoured by all means to prevent an increase in the price of foodstuffs.[10] In these

conditions the unification of the national market was not possible, and in each country a series of regional markets were established with markedly different price-levels, reflecting the particular regional conditions of comparative plenty or want. In mediaeval England the region with the highest price for wheat and that with the lowest were only 50 miles apart; in April 1308 there was a difference of 40 per cent in the price of wheat between the towns of Oxford and Cuxham, separated by only 12 miles![11]

It is in the evolution, from the sixteenth century onward, of these local markets supplied essentially out of the surpluses of producers of use-values, into great metropolitan markets, that we must look for the origin of agricultural capitalism. The prodigious development of urban centres like London, Paris, Antwerp, Amsterdam, Hamburg, etc., upset the relations of supply and demand as regards agricultural produce.[12] These great cities concentrated within their boundaries a considerable proportion of the national population—in the case of London, 10 per cent of the British population from the end of the seventeenth century and 20 per cent by the nineteenth century. The supply of foodstuffs to these populations depended no longer merely on the neighbouring agricultural areas, but on a large proportion of the entire agricultural production of the whole country.[13] This tended to level out agricultural prices on the national scale, and this in the sense that the prices paid in the metropolitan area became the basis for the national price of wheat.

Thereby, contrariwise to what happened in the local markets of the Middle Ages, the areas with big wheat surpluses which were near the capital could sell their wheat dearer than remote areas where there was a shortage (allowing for transport costs).[14] After the metropolitan market the next stage, achieved in a single century, was the *world grain market*: London attracted not only the wheat needed for its own feeding but also all the wheat intended for export, for maximum valorisation on the markets of the world.[15]

The appearance of vast metropolitan markets from the sixteenth and seventeenth centuries onward was accompanied by a complete reversal of the food-supply policy of the big towns. For these it was no longer a question, as in the Middle Ages, of restricting the price of foodstuffs by every means. On the contrary, it was a question of ensuring by every means an adequate supply of foodstuffs for the town *at any price*.[16] It was in this sense that the metropolises played the part of an apparently unlimited market, thus fostering the introduction of capitalism in agriculture. No longer were only the surpluses of rural production sent to the town; the maximum possible amount of wheat was sent, so that often the country people were reduced to subsistence level.[17]

The movement for the enclosure of common land was stimulated

not only by attractive prospects for sheep-raising but also by very high prices of wheat. The appearance of the metropolitan market and the ending, for the agricultural producers, of free use of the soil (i.e., the introduction of capitalism in agriculture), were intimately linked together.[18] The importance of this stimulus can be judged if one considers that, from 1500 to 1800, the price of wheat in Britain rose from index 100 to index 275, and in France from index 100 to index 572, whereas the prices of metals and textiles rose by only 30 per cent during the same period.[19]

In the same epoch, the rationalisation of agriculture, the transition from the three-field system to the planting of crops which restore the soil's fertility, and the growing use of chemical fertilisers, increased, first in Flanders, Holland and some parts of Germany, then later in Britain and France, the minimum funds needed by a farmer if he were to take advantage of this miraculous manna of rising agricultural prices. From the end of the eighteenth century one needed, in England, to dispose of a minimum capital of £5 an acre in order to exploit an arable farm, £8 an acre for a mixed farm, and £20 an acre for a cattle or sheep farm.[20] The ownership of *capital* thus became the condition for any viable agricultural enterprise, however modest. In this way all the conditions for the penetration of capital into agriculture were realised.

Now, as it penetrated into agriculture in the old countries of Western and Central Europe, this capital was confronted by two circumstances which were utterly different from those existing in industry and trade. Whereas in industry all the material factors of production—machinery, raw materials, labour—could be produced and reproduced by capitalism itself, and produced at a price relatively or absolutely lower and lower (in the case of labour, thanks to the industrial reserve army!), in agriculture, the basic material element of production, the land, is given, in *limited* quantity, once for all. It constitutes a natural monopoly, marked for ever with the stamp of shortage.[21] Whereas capital could freely enter and leave every sphere of industry, it could not freely enter agriculture. There, the ownership of the land had been seized by a class of *landowners* who forbade access to it unless a rent was paid.

The land thus constituted a twofold monopoly at the beginning of the capitalist mode of production: a natural monopoly and a property monopoly. So long as agricultural productivity lags behind the increase of the population and the productivity of industry, a dual differentiation of prices will exist. Since the whole of agricultural production is absorbed by the market, the selling price of wheat will be determined by the conditions of production prevailing on the plots of land which are *least profitable* (through their degree of fertility, the way they are cultivated or their geographical position), so that this

price will greatly exceed the price of production on the more profitable farms, which will thus realise a *super-profit*. Since, furthermore, agriculture does not participate in the general equalisation of the rate of profit, owing to the existence of the monopolies mentioned, even the wheat produced under the least profitable conditions is not sold at its price of production but at its *value*, which is higher than the price of production just because of the technical backwardness of agriculture as compared with industry, the lower organic composition of capital in the agricultural sphere. *Capitalist ground rent originates in this dual differentiation, and exists only to the extent that this differentiation exists.*

Differential ground-rent

In industry, superprofits are realised when the productivity of an enterprise is higher than the average. Even if this higher productivity makes it possible to sell commodities above their price of production, it leads to a *lowering* in the average market prices. In agriculture too, big differences in productivity enable certain enterprises and the owners of certain pieces of land to realise a surplus profit. But this profit does not coincide with a reduction but with an *increase* in the market price. So long as, through increase in population and a lag in agricultural productivity, the demand for agricultural produce exceeds the supply, this price will remain determined by the value of the agricultural commodities produced under the worst conditions of profitability. If all the human labour expended for the production of foodstuffs is socially necessary labour—so long as all the products of agriculture find purchasers!—even those agricultural commodities which are produced under the least profitable conditions will find an equivalent for their value; it will thus be this value that will determine the average selling price of wheat. The difference between this price and the price of production of the wheat produced on land with a higher productivity represents a *differential* rent which is taken by the landowner.

This differential rent may arise in two different ways: from the difference in natural fertility, or geographical situation, between different plots of land, or from the investment of different amounts of capital. We call these two cases differential rent of the first type and differential rent of the second type.

Take three plots of land of the same area, on which three farmers are working, each with capital identical in amount and organic composition. This capital, for one million francs expended in a year, produces 80 quintals of wheat from plot A, 100 from plot B, and 120 from plot C. If the average rate of profit is 20 per cent, the selling price of the wheat will be $\frac{1,200,000}{80}$ francs, or 15,000 francs per quintal, the price of production of the wheat on the least fertile of the plots.

Plot A will thus bring in no differential rent. The product of plot B will be worth 1·5 millions; if this plot be let, the owner will receive a differential rent of 300,000 francs; the farmer who actually cultivates it will have to be content with the average profit of 200,000 francs. The product of plot C will be worth 1·8 millions; if this plot be let, the owner will receive a differential rent of 600,000 francs, the farmer who actually cultivates it having, once more, to be content with the average profit of 200,000 francs.

As transport charges are incorporated in the selling prices of agricultural products, the plots nearest to a metropolitan centre will bring in a substantial differential rent. Here is an example taken from the United States:

Distance from Louisville (Kentucky) in miles	*Rent of land per acre dollars*	*Price of land per acre dollars*
8 or less	11·85	312
9 to 11	5·59	110
12 to 14	5·37	106
15 or over	4·66	95[22]*

From 0 to 5 miles from an urban centre: dairying zone: average rent, 15 dollars.
From 5 to 17 miles from an urban centre: maize zone: average rent, 8 dollars.
From 17 to 27 miles from an urban centre: wheat zone: average rent, 5 dollars.
From 27 to 50 miles from an urban centre: ranching zone: average rent, 2 dollars.

So long as agricultural prices tend to rise, the capitalists are interested in investing in agriculture, so as to extend cultivation to uncultivated land or to get higher production from land already under cultivation. In the first case, it is not necessarily a matter of less fertile land: it may involve land which is less accessible, more remote, land which needs considerable drainage or irrigation if it is to produce more than land already under cultivation. But these investments of capital have to be depreciated over a certain period; during that period they therefore increase the cost of production, and, thereby, the price of production.

The same is true when production is increased on land already cultivated, through the use of additional quantities of fertiliser, a better

* Though all these plots are not suitable for the same crops, their relative distance from the urban markets determines to a large extent the profitability of the different kinds of agriculture, taking into account the costs and the relative speed of transport, the perishable nature of the produce, etc. Ely and Wehrwein[23] give the following table of average rent per acre in the United States:

selection of seed, the introduction of agricultural machinery, the employment of agronomists—in short, through further investment of capital.

Experiments in the U.S.A. have shown that in the fifties an average of 12·33 bushels of wheat per acre could be got there when wheat is grown without a break and without using fertiliser; 23·58 bushels when a certain optimum amount of fertiliser is used, but without any break in the growing of wheat; and 32 bushels when an optimum quantity of fertiliser is used and a four-year rotation system followed.[24]

Let us go back to our example of the three plots of land, A, B and C. Assume that an extra investment of one million francs in plot C results in an increase in production from 120 to 220 quintals. On the two million francs thus invested, the capitalist has to realise an average profit of 20 per cent, or 400,000 francs. But the 220 quintals will be sold for 3·3 million francs, if the selling price continues to be determined by the price of production of wheat on the least fertile plot, or 15,000 francs per quintal. Of these 1·3 million francs of surplus value, 400,000 francs will go to the capitalist as average profit, 600,000 francs will go to the landowner, as differential rent of the first type; and 300,000 francs represent the differential rent of the second type which the farmer will endeavour to keep but which the landowner will try to get included in the rent, when the lease is renewed.* Unlike differential rent of the first type, rent of the second type is less obvious and therefore less directly seizable by the landowner.

Absolute ground-rent

Up to now we have encountered rent, super-profit, only on land where, through better fertility or geographical position, or through additional investment of capital, the price of production is lower than it is on less profitable land, so long as the latter price determines the price at which agricultural products are sold. What will happen, though, to land of this latter category? Where the cultivator and the owner are the same person, there is no problem, since the capitalist will, in principle, be content with the average profit alone. It will not be the same, however, where the owners of these plots of land do not cultivate them themselves. In this case, the payment of a rent to these landowners remains a pre-condition for the plots concerned to be opened to cultivation. So long as the selling price of wheat is less than or equal to the price of production of wheat on these plots, they will

* This is not grasped by a number of critics of Marx, who, like Arthur Wauters, reproach him with mixing up interest and differential rent of the second type. Interest goes to the owner of *capital*; differential rent goes to the owner of the *land*, even if he has not invested a single centime in his land. At least, it goes to him after the renewal of a tenancy. It must be noted that Marx himself answered this criticism, when it was levelled at Ricardo.[25]

remain uncultivated, because farmers would not be able to pay the rent without encroaching on their own average profit. Why should they, when, by transferring their capital to industry and trade, they can realise this average profit? But from the moment that the selling price rises sufficiently to bring in a rent even on these least fertile plots of land, their exploitation will be undertaken.* And throughout the first period of the capitalist mode of production, the lagging behind of agricultural productivity, as compared with industrial productivity and the increase of population, actually did create such a situation.

Where does this rent come from which appears on the least fertile land? Its source lies in the fact that the wheat produced under these conditions is not sold at its price of production but at its value, and that the latter exceeds the price of production because the organic composition of capital is lower in agriculture than in industry, whereas the monopoly of landed property prevents the free flow of capital in and out of agriculture, so that agricultural capital is thus prevented from "sharing" in the social equalisation of the rate of profit, giving up part of the surplus-value created in "its" sphere to the general share-out of this surplus-value.

Suppose that the annual production of industry amounts to: 400 billion c + 100 billion v + 100 billion s = 600 billion.

Agricultural production might be determined somewhat like this: † 200 billion c + 100 billion v + 105 billion s = 405 billion.

The average rate of profit in industry would be $\frac{100}{500}$ = 20 per cent.

In agriculture, the products will not be sold at their price of production, embodying a profit of 25 per cent (i.e. at 375 billion),‡ but at their value, or 405 billion, i.e. with 30 billion super-profit. This will be the *absolute ground rent* which appears by way of this super-profit. The rate of profit in agriculture will be $\frac{105}{300}$, or 35 per cent.

Let us now go back to the three plots of land, A, B and C, which we quoted as examples in connection with differential rent of the first type:

Plot	*Capital*	*Production*	*Selling price per quintal*	*Total received*	*Average profit*
A	1 million	80 q.	16,875	1,350,000	200,000
B	1 million	100 q.	16,875	1,687,500	200,000
C	1 million	120 q.	16,875	2,025,000	200,000

* This does not mean that these plots are necessarily the last to be cultivated. The spread of cultivation to more fertile land may cause cultivation to be given up on less fertile land, if the selling price of wheat goes down.

† The rate of surplus-value is usually higher in agriculture than in industry because agricultural wages, as is well-known, are lower than wages in industry.

‡ Total social surplus-value of 205 billion gives an average rate of profit of 25,625 per cent on a social capital of 800 billion.

	Absolute rent	*Differential rent*
A:	150,000	—
B:	150,000	337,500
C:	150,000	675,000

The selling price is equal to the *value* of a quintal of wheat produced on the least profitable of the plots, A, that is, to the capital invested, 12,500 francs, plus 35 per cent profit, 4,375 francs, or, altogether, 16,875 francs. The absolute rent arises from this difference between the value of a quintal of wheat produced on plot A and its price of production, 15,000 francs (12,500 francs + 20 per cent average profit).

Ground rent, needless to say, is not "produced" by the land. A piece of waste land does not "produce" an atom of rent. Ground rent is produced by labour-power engaged in cultivation. It is thus surplus-value, unpaid labour, exactly like industrial profit. But it is a special kind of surplus-value, *which does not participate in the general equalisation of the rate of profit*, owing to private property in land, and which thus provides a super-profit as a result of the lower organic composition of capital in agriculture as compared with industry (absolute rent). This super-profit is further increased by a super-profit which arises from the fact that all the labour engaged in agriculture is socially necessary, even if it is engaged under conditions of productivity lower than in industry.

Ground-rent and the capitalist mode of production

Ground rent thus represents a *twofold loss* for the bourgeoisie as a whole. On the one hand, a certain amount of surplus-value does not participate in the equalisation of the rate of profit, and as this amount is produced by capital with an organic composition lower than in industry it could have increased the average rate of profit. On the other hand, the prices of agricultural products are increased, since they are sold according to the value of the products coming from the least profitable plots. This makes necessary a minimum level for wages which is higher than would be the case if rent were abolished, and thus means to some extent a transfer of value from industry to agriculture.

This is why the most logical representatives of the liberal industrial bourgeoisie, notably Ricardo and John Stuart Mill, fought for the abolition of private ownership of land. In newly settled countries like the United States, Australia or Canada, where enormous expanses of virgin land were at the disposal of the settlers, absolute rent could disappear completely: the land was distributed free, on payment of a purely nominal tax due to the state. In the U.S.A., under the Homestead Act of 1862, it was possible to become the owner of 160 acres of uncultivated land after five years of effective occupation. In Canada,

90 per cent of the 58 million acres occupied by the settlers were distributed in the same way.[26] The source of absolute ground rent, namely, the private monopoly of ownership of land, was thus proved, by a negative experiment. Where this monopoly is not found, neither does absolute rent exist.

The existence of ground rent is not only an obstacle to the optimum development of the capitalist mode of production in general. It especially hinders the development of capitalist relations in the countryside. The rent taken by the non-cultivating landowners is withdrawn from agriculture and not reinvested. It reduces the investment fund available and slows down the accumulation of capital in agriculture. Thus, in Switzerland, between the eve of the First World War and the eve of the Second, the farmer's total capital increased from 1,160 to 1,673 Swiss francs per hectare, whereas the landowner's capital increased from 4,280 to 6,167. Only a small fraction of this latter increase, 52 Swiss francs to be exact, came from improvements in the land![27] The rate of accumulation of capital in agriculture is thus lower than in industry. This determines a productivity of labour in agriculture which is much lower than in industry, as may be seen from the following table:

Occupational distribution of the population, and contribution of industry and agriculture respectively to the formation of the national product, in percentages, in 1950-51:

Country	*Industry*		*Agriculture*	
	Pop.	*Gross national product*	*Pop.*	*Gross national product*
Italy	23	34	49	29
France	29	40	36	29
Denmark	32	36	28	22
Netherlands	32	39	19	12
Norway	32	46	31	15
West Germany	44	55	22	12[28]

For 1956 the "Report on the Economic Situation in the Countries of the Community" of the Common Market Commission shows that the agricultural product per head of active population amounts to no more than 76 per cent of non-agricultural income in the Netherlands, 58 per cent in Belgium, 57 per cent in France, 56 per cent in West Germany and 38 per cent in Italy.[29]

The fact that a great part of farmers' capital is tied up in the renting or purchase of land* entails a period of *rotation of capital* which is longer in agriculture and building than in industry: a rotation cycle takes 4 to 5 years, on the average, in agriculture, and 8 to 10 years in the building trade in the towns in the United States.[31]

* "Nearly two-thirds of investment in agriculture is accounted for by investment in (the price of) land."[30]

But the appropriation of differential ground rent by the landowner presents above all a major obstacle to *land improvement*. Farmers have little interest in working to achieve an improvement which will inevitably cause the landowners to increase the leasehold charge they have to pay! Landowners try to make tenancies renewable as frequently as possible (annually, if they can), so as to ensure a correspondingly regular increase in differential rent. Farmers, for their part, are interested in securing long leases, so as to be able to benefit by the improvements due to their capital (or their labour, in the case of small farms).

Nineteenth-century Ireland offers the classic example of the injustice resulting from the appropriation of differential rent by the landowner:

"In the year 1870 there were 682,237 farms in Ireland, of which 135,392 were leasehold and 526,628 belonged to the class of yearly tenancies. A yearly tenancy was terminable at six months' notice without compensation. Only in the case of about twenty estates were the buildings and standing farm equipment provided by the landlords . . . In all other cases the tenant had to supply the fixed capital as well as every other form of capital required on his farm. The termination of the tenancy thus enabled the landlord to confiscate the capital invested by the tenant. Between 1849 and 1880 nearly 70,000 families were evicted and dispossessed. The alternative to eviction was willingness and ability to pay a higher rent, and this in fact enabled the landlord to confiscate by another method the capital as well as the industry of an industrious tenant."[32]

Such an unjust system inevitably leads to a defensive reflex by the farmer which is detrimental to land improvement:

"Even with [a lease of] nine years . . . the farmer had too often to spend the first three-year rotation reconstituting the fertility impaired by his predecessor; he cultivated the land normally during the second three-year period, and then spent the last three years exhausting the land in one way or another. A friend of mine who is familiar with agricultural problems estimates at 20 per cent the resulting underproduction."[33]

Certain crops, such as orchards, which require constant attention over many years, are incompatible with leasehold and the separation of landownership from the actual cultivation of the land.[34]

The price of land and the evolution of ground rent

With the world-wide extension of the capitalist mode of production, all income is conventionally regarded as being a return on capital, real or imaginary, invested at the average rate of interest.* Ground rent is a real economic category, with its source in the surplus value produced by all the workers on the land. But the "value of land" is

* See Chapter 7.

an expression which in itself is meaningless. Land has no value, any more than air, light, or the wind that moves a sailing-ship. It is a "factor of production" provided by nature, not a commodity produced by human labour.* Where the monopoly of private ownership of land has not been established, land has neither "value" nor price. So recently as the present century, the white settlers in Rhodesia obtained their land for the token price of a penny an acre!

Only where private appropriation of land has transformed it into monopoly property does land acquire a *price*. This price is nothing but *ground rent capitalised* at the average rate of interest:

"The price of land is determined by the price of the products [of the soil] and not the reverse."[35]

Buying a piece of land is not buying a "value" but a *claim to income*, future income being calculated on the basis of present income: [36]

"The buyer of land is actually buying the right to receive a series of annual incomes, and the most tangible basis for judging what these annual incomes will be in the future is what they have been in the immediate past. Studies show that income received from land for a seven-year or ten-year period preceding sale is a most effective gauge of the price the purchaser will agree to pay."[37]

This origin of the price of land is confirmed by the way this price has evolved since the end of the eighteenth century. The price of land does not vary around a "real value", but follows the oscillations, often sharp and violent, of the agricultural conjuncture.

The increase of population, the bringing under cultivation of less fertile land which required considerable investment of capital if it was to be cultivated, brought about a marked rise in agricultural prices in the second half of the eighteenth century, followed immediately by a corresponding rise in rents. Between 1750 and 1800 the price of wheat increased on the average by 60 per cent in England, 65 per cent in France, 60 per cent in North Italy, and 40 per cent in Germany. In the same period d'Avenel estimates that average rent per hectare rose in France by 50 per cent. In England and Germany an even bigger increase in rent was observed, owing to a marked fall in the rate of interest.[38] The rise in agricultural prices on the Continent between 1820 and 1870 was likewise accompanied by a notable rise in rents.

The average value of all agricultural land in the U.S.A. has for a century followed the movement of agricultural prices: from 1860 to 1890, a rise of 16·32 dollars per acre, to 21·31 dollars; from 1890 to 1900, a decline to 19·81; from 1910 to 1920 [war boom!], a rise of 39·60, to 69·38; between 1920 and 1935, decline [the great crisis!] to 31·16, etc.[39]

* This does not apply to land which, like the *polders* of Flanders and Holland, has been literally "produced" by human labour, which has reclaimed it from the sea.

For differential ground rent to appear, the selling price of agricultural products must ensure the average profit even on capital invested in the least profitable land. For absolute ground rent to appear, this same selling price must ensure the sale of wheat produced under the worst conditions of productivity, not at its price of production but at its value. When the prices of agricultural products fall, these conditions, or one of them, may be eliminated, temporarily or for good. At that moment rent vanishes from certain plots of land. They cease to be cultivated unless they are exploited directly by their owners. If they are, the owners have to be satisfied with an income lower than the average profit, perhaps merely equivalent to a wage.

This phenomenon, which occurred already during all the pre-capitalist crises of agriculture,* made itself vigorously felt in the last quarter of the nineteenth century. At that time, vast expanses of prairies and pampas were beginning to be brought under cultivation in overseas countries, with the aid of mechanical methods, which reduced the cost of production by 50 per cent.[40] At the same time, the improvement in means of transport made possible a reduction in freight charges, which, for wheat despatched from New York to Liverpool, fell from 0·60 gold francs per bushel in 1860 to 0·25 in 1866 and 0·05 in 1910.[41] These two developments together brought to Europe quantities of agricultural produce from overseas, often without any ground-rent entering into their prices, and thus caused a collapse of agricultural prices.

This collapse led both to a fall in the price of land and to the abandonment of all cultivation on the less profitable plots of land. In France between 1875 and 1900 the "value" of rural property was reduced by 35 per cent, on the average.[42] The area of land under the plough shrank from 25 million hectares in the middle of the nineteenth century to 18 million in the middle of the twentieth.[43] Clapham notes that after the fall in agricultural prices at the end of the nineteenth century the fate of some land was to " 'tumble-down' to third-rate pasture, as on the Essex 'three-horse' clays."[44]

True, the agriculturists of Europe strove by various reactions to reverse this current. In some countries, such as France, Italy and Germany, there was an attempt, by means of *protective tariffs*, artificially to maintain high agricultural prices. These prices thus ensured the difference between the average price on the world market and the price on the least profitable plots of "national" land—that is, precisely, the differential rent of the best-endowed landowners! * In

* In France "the purchase price of wheat is calculated on the basis of the cost of production on the most old-fashioned farms of Ariège and Rouergue... The big capitalist agriculturists of the Paris basin, whose real costs of production are almost 60 per cent lower than those of these small peasants, pocket the difference!"[45]

* See Chapter 11.

other countries, such as Denmark, Holland, Belgium, etc., attempts were made to consolidate ground rent and the price of land by a considerable investment of capital, large-scale use of fertilisers—per hectare-year, 30 kilogrammes of nitrogenised fertiliser were used in 1938 (49 kilogrammes in 1956) in Belgium, as against 6·7 (9·7 in 1956) in France; 35 kilogrammes of phosphates (51 in 1956) in Belgium, as against 13 in France (18 in 1956); 46 kilogrammes of potash in Holland (68 in 1956; 76 in this same year in Belgium) as against 8·7 in France (14·5 in 1956)[46]—and above all by transforming cultivated land into meadows, the animal products of which (meat, butter, milk, etc.) serve as basis for a more stable rent, because a substantial section of the population of the big towns prefers to consume fresh animal products, even at a higher price.[47]

In the 1920s this new equilibrium of Europe's agriculture was upset by a violent shock: the world agricultural crisis which went on down to the Second World War, and reasserted itself from 1949 onward. The expansion of agriculture in overseas countries creates a permanent "surplus" of agricultural produce, despite the state of chronic undernourishment in which hundreds of millions of human beings live in China, in India, in the rest of Asia, and in most of Africa and Latin America.[48]

It has now been shown that, within the setting of the capitalist mode of production, the relative stability (inelasticity) of the demand for agricultural produce, once a certain degree of industrialisation has been attained* (the same inelasticity which has been the source of agricultural super-profit through several centuries), may become a source of permanent crisis as soon as agriculture experiences, belatedly, upheavals in productivity comparable to those in industry.[51]† In the

* This stability is only relative. For the U.S.A., Renne declares: "If all consumers in the United States were to have diets considered adequate by nutritional experts, vegetable consumption would probably be increased at least 50 per cent, and consumption of dairy products at least 15 or 25 per cent."[49] Statistics show, moreover, that in 1939 the industrial workers in England and Germany consumed, per head, half the amount of milk consumed in Sweden and Switzerland, a third of the amount of butter consumed in Canada, Germany and Holland, half of the amount of sugar and meat consumed in Australia, etc.[50]

† Here is a striking summary of the advance in the productivity of agricultural labour:[52]

To reap and bind one hectare of wheat in one hour, there were needed in France:

About 1750, using sickles, 40 to 50 men	Productivity increased by 500 per cent
About 1830, using scythes, 25 to 30 men	
About 1870, using reaping machines, 8 to 10 men	
About 1905, using reapers and binders, 1 to 2 men	Productivity increased by over 1,000 per cent
In 1950, using reaper-binder-threshers, less than one man--and the harvest is threshed at the same time.	

period 1930–1955 agricultural productivity increased by over 100 per cent in the U.S.A. As regards the cultivation of grain, productivity has *trebled* in 30 years! [53]

Between 1930 and 1950, the increase in productivity in American agriculture was almost equal to that in industry. The same increase took place in Great Britain.* In its turn, the U.S.A. experienced the shrinkage of the area sown to wheat and the transformation of cultivated fields into meadows, if not the disappearance of all agricultural use of the least fertile land.

Thus, between 1919 and 1929, cultivation was abandoned on 20 per cent of the land in the South and West of the U.S.A., where, in spite of mechanisation, the cost of production of a bushel of wheat did not fall below one dollar, whereas in the plains of Montana, Kansas, Nebraska, etc., it fell to 60 cents.[56] As for the old countries of Europe, rent could vanish or become insignificant for a large part of the least fertile land, as happened in France on the eve of the Second World War.[57] Recently Baron Snoy, secretary-general of the Belgian Ministry of Economic Affairs, has stated that the abandonment of the policy of agricultural protection in Western Europe would make it possible to reforest very large areas where agriculture had been given up.

Landed property and the capitalist mode of production

Private property in land, far from being a condition for the penetration of the capitalist mode of production *into agriculture*, is a hindrance and brake upon it. The private appropriation of *all cultivable land*, which prevents free settlement of new peasants on the land, nevertheless remains an absolutely indispensable condition for the rise of *industrial capitalism*. So long as there are vast expanses of land available, urban labour-power has a refuge from the factory prison, there is practically no industrial reserve army, and wages may well rise in consequence of competition between industrial and agricultural employment. The high wages which existed in the U.S.A. before the disappearance of the Western "frontier", which definitely established a

* In Great Britain, since 1950, 40 per cent of the farms of 5 to 10 hectares, 60 per cent of those between 10 and 20 hectares, and practically all the larger farms have possessed at least a tractor. Between 1944 and 1952 the number of tractors per 100 farms increased from 10·4 to 28 in Sweden. It grew from 8·9 to 23·7 between May 1949 and April 1952 in West Germany. It doubled between 1949 and 1951 in Denmark, and between 1949 and 1952 in Austria and Belgium. In 14 countries of Western Europe (including Great Britain) there were about a million tractors in 1951 and their number was increasing by 15 per cent per year.[54] What is typical of the countries with the most highly mechanised agriculture, namely, Britain, West Germany and Sweden, is that the increase in the number of tractors concerns more and more the middle-sized and small farms, the big ones having already been mechanised nearly 100 per cent.[55]

wage scale higher than any in Europe, are to be explained to a large extent by this factor.

From the middle of the eighteenth century, American politicians frankly recognised this fact and demanded, like Benjamin Pale, of Connecticut, that migration westward be stopped. And Samuel Blodget, one of the first American economists, observed in 1806 that cheap land makes labour dear.

"No freeman will work for another if he can buy good land sufficiently cheap to provide him comfortable subsistence with two days' labour a week."[58]

Private appropriation, by robbery and legal or illegal violence, of the greater part of the virgin land in the countries with reserves of land accompanied the entire progress of the capitalist mode of production outside Western Europe, where, moreover, a similar phenomenon occurred in the form of the private appropriation of the common lands. The idea of private ownership of land has become to such an extent a fundamental idea of bourgeois society that the courts even recognised as a transfer of property the gift of a 600-acre forest by the State of Pennsylvania to God, and subsequently "expropriated" this "owner" for non-payment of tax![59]

From the end of the eighteenth century the East India Company transformed into landlords of entire provinces the *zamindari* or tax-farmers of the Mogul Empire.[60] In the Argentine, between 1875 and 1900, 30 million hectares of land were sold for insignificant sums: most of it has been left waste to this very day, but the whole of the public domain was alienated in this way. In Canada nearly a third of the entire public domain was taken over by the railway companies.[61] In the U.S.A., while 96 million acres were distributed under the Homestead Act and other laws of the same kind (a considerable part of this land, moreover, going to capitalist companies, for whom farmer applicants acted as fronts), 183 million acres were left to the railway companies.[62]

In North Africa, French colonisation led to large-scale alienation of native land: 3 million hectares appropriated by the French settlers in Algeria, under specific laws;[63] 1·4 million hectares in Tunisia, or half of all the arable land in that country;[64] 1 million hectares appropriated in Morocco by 4,700 European settlers, while 8 million Moroccans have to subsist on 3·8 million hectares of less fertile land.[65]

Also in Africa the British settlers seized 50 million acres in Southern Rhodesia, on which live 100,000 whites, while 1·6 million Africans have only 29 million acres to live on. The settlers have taken 12,750 square kilometres in Kenya, which are at the disposal of 29,000 Europeans, leaving 43,500 square miles for 5 million Africans!

Thanks to this system, the "native reserves" as they are cynically

called by the whites, furnish abundant labour-power both to the settlers and to the European mining and industrial companies. Many forms of serfdom, forced labour either open or concealed,* ground rent paid in the form of labour service, are imposed on the wretched Africans who have been brutally torn from the land, that is, from their customary means of existence.[67] This system has been carried to an extreme in South Africa, where 2 million whites have appropriated 88 per cent of the land, leaving 12 per cent, much of it useless, for the subsistence of 8 million Africans, herded into "reserves" and ferociously exploited: the total annual wages of the 400,000 Africans working in the South African gold mines amount to £30 million, if one estimates very generously the value of the meagre food-rations given these workers, whereas the annual profits of the gold-mining companies amount to £50 million.[68]

Striking the balance of the agrarian laws introduced by Britain in Ceylon, an official Ceylon Government commission remarks that they served to deprive the villages of their common forests and meadows, together with some of their land used for secondary crops, and this exclusively in the interests of capitalists coming, in the first place, directly from Europe, and later, from the coastal provinces of the island.[69]

Production-relations and property-relations in the countryside

The special relations which, by the creation of the industrial reserve army and by the economic role of ground rent, link agriculture with industry in the capitalist epoch, gave rise to the special forms of development in agriculture itself. The introduction of slavery in the American colonies between the sixteenth and nineteenth centuries, the introduction of forced labour in the African and Oceanian colonies at the end of the nineteenth and in the twentieth century† were, in the special conditions of the countries in question, necessary conditions for creating *capitalist property-relations* in these countries. They none the less hindered for a long time the penetration of capitalist *production-relations* in the country.

A similar and still more important phenomenon appeared in Eastern Europe, and in the Middle East and Far East at the end of the nineteenth century and in the first part of the twentieth. The penetration of capitalist products into these countries, their inclusion in the world market, brought about the destruction of the age-old equilibrium of village economy, based on the combination of crafts with agriculture.[70] The land itself not being capable of supporting the whole of the non-

* See the chapters dealing with the Belgian, British, French and Portuguese colonies in the publication of the United Nations International Labour Office, "Report of the *Ad Hoc* Committee on Forced Labour".[66]

† The sugar industry of Queensland was based exclusively on the semi-slave labour of the Kanakas from 1860 until about 1900.

urban population, and no substantial increase in employment being forthcoming in the towns, *chronic overpopulation of the countryside* made its appearance—a mere concealed form of chronic unemployment.*

This overpopulation of the countryside gives rise to a fierce competitive struggle among the peasants for the tenancy of little plots of land, not so much as means of acquiring the average profit as mere means of livelihood. It is to the interest of the landowner to let out his land in small lots rather than to exploit it as a large-scale capitalist enterprise. *The bourgeois property-relations prove an obstacle to the introduction of the capitalist mode of production in agriculture.* The extreme fragmentation of units of production which results from this is especially marked in India, where the average area of a farm is 4·5 acres, while in the highly-populated state of West Bengal, one-third of the farms are less than 2 acres in size. The same phenomenon leads to a formidable increase in ground-rent and to *overcapitalisation* of the land.[71] The peasants impoverished in this way eventually lose their little holdings and become proletarianised, either obviously or in some disguised way. The small farmers, clinging desperately to their little plot of land, pay a *usurious rent* which expresses their super-exploitation, their income often being less than that of an agricultural worker. When they have not even the minimum capital and have to exploit the land they have leased in the form of share-cropping,† they transform themselves into real proletarians, working for a wretched wage:

"In Arabic, share-cropper is *mraba*, that is, one who has a quarter share. This is, in fact, the usual arrangement. In grain-growing villages the landowner provides the fellah with a house, land, seed and the means of ploughing. The latter is pretty sketchy: two oxen—sometimes only two cows—and the sort of plough used in the region. The share-cropper, it will be seen, contributes nothing but his labour, together, of course, with that of his whole family. Having nothing that belongs to him, except his wife and children [this is the literal translation of 'proletarian'! E. M.] . . . he is wholly dependent on the landlord, who can, in theory, evict him at the end of each agricultural year. As reward for this year of labour, he receives a quarter of the harvest . . ."[72]

The extreme forms that this usurious rent can take was shown by the example of pre-war Korea. H. K. Lee observed there in 1936 that rent amounted in such extreme cases to 90 per cent of the harvest.[73]

And as share-croppers reduced to such a level of poverty invariably

* See Chapter 13, "Imperialism", section "The economic structure of the underdeveloped countries."

† Share-cropping is a transitional form between pre-capitalist and capitalist rent.

end by falling into debt, the usurer being most often the landlord himself (or the big farmer standing between the share-croppers and the landlord), they easily pass from the status of proletarian to that of serf: "In Iraq (there is) . . . a law which forbids the sharecropper to leave the land as long as he is indebted to his landlord, which is generally the case."[74]

Alfred Bonné has further shown that this system, like the similar system introduced in Eastern Europe in the sixteenth century, represents the landlord's response to a dangerous shortage of labour-power when this makes itself felt on his broad estates.[75]

Concentration and centralisation of capital in agriculture

Because in agriculture, in contrast to industry, bourgeois property relations and capitalist production relations do not necessarily coincide,* the problem of the concentration of capital presents itself in a special way. The law of the concentration of capital is a law which springs from the *capitalist mode of production*; it is not a universal law springing from the mere existence of private ownership of the land.

Where the capitalist mode of production is merely *beginning* to penetrate agriculture, where we are still confronted with old semi-feudal estates in process of disintegration, it would be as absurd to look for agricultural concentration as it would be to study industry as it was at the end of the eighteenth century from the stand-point of the concentration of capital. *It is only when agriculture as a whole has been subjected to the technical upheavals inherent in the capitalist mode of production that the problem of concentration can arise.* Such phenomena as the remarkable concentration of landed property in Eastern Europe before the Second World War, in Spain, or in most of the countries of Latin America, have nothing to do with this category: in these cases it is a matter either of survivals of pre-capitalist property or else of investment of capital in land owing to the lack of industrial outlets for it (in Chile, for example, 2,300 landowners possessed in 1952 31 per cent of the cultivable land and 60 per cent of all the land in the country, whereas 150,000 small enterprises covered only 16·5 per cent of the cultivable land and 6 per cent of the total).[77]

Once given the capitalist mode of production in agriculture, two

* For this same reason, present-day agriculture conserves in one way or another all possible forms of pre-capitalist society. Thus, there are parts of South Africa, especially in the Transvaal and Natal, where the black farmers have to pay their rent in the form of 90 to 180 days of labour-service (unpaid work) on the white landowner's farm. These forms of mediaeval exploitation can also be found in a number of countries of Latin America: "This form of tenancy is often met with in Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela, among the agricultural workers of the plantations, to whom the landowner assigns a small plot of land, in return for which they have to work without payment a certain number of days every week."[76]

factors hinder the manifestation in it of the concentration and centralisation of capital. We know that ground rent arises from the fact that the least profitable enterprise determines the price of production of agricultural products. But the concentration of capital operates precisely through the elimination of the least profitable enterprises! So long as the latter have a guaranteed market in spite of their technical backwardness, the centralisation of capital cannot show itself in agriculture. Concentration will nevertheless show itself by way of the enormous difference which emerges between the price of the least profitable land and that of the most profitable, that is, by way of the capitalisation of a huge differential rent.

Similarly, plots of land which are below the threshold of profitability can nevertheless be exploited, not to produce the average profit but to provide a mere subsistence-basis for a small farmer who in this way sacrifices his standard of living in order to cling to "his" farm.[78]* Working with little or no capital, doing without rent and profit, he remains notwithstanding at the mercy of bad harvests and conjuncture fluctuations. This is what accounts for the very high mortality of these small agricultural enterprises. In the U.S.A. in 1935, 25 per cent of all the heads of agricultural enterprises had been in occupation of their farm for only one year or less; 47 per cent of all the farmers and 57 per cent of all the sharecroppers had been in occupation for less than two years.[80] It is estimated that 100,000 family farms have vanished each year during the decade beginning in 1950.[81]

When this guaranteed market disappears, in practice from the last quarter of the nineteenth century, small enterprises can continue to compete with big ones by going over to *intensive cultivation*,† which makes possible an output higher than that given by the extensive cultivation of the big estates.

For this reason, even though the amount of capital invested has increased enormously‡—an indirect form of concentration of

* Thus, in Belgium it has been calculated in the 'fifties that the income per hour of the small farmers is only 14·5 francs in the case of farms of 5 hectares, whereas the minimum hourly wage in industry was 25 francs. In West Germany several inquiries have led to the finding that on small farms the monthly income per worker can be as low as 150 DM, far below the lowest wages paid in industry.[79]

† The difference between extensive and intensive cultivation relates to *output per unit of area*. In 1935–39, Denmark, Holland and Belgium produced, respectively, 45, 45 and 40 quintals of wheat per hectare, as against 10 in the U.S.A. and 12 in Canada, Argentine and U.S.S.R.[82] Intensive cultivation is the result either of a higher investment of capital per hectare, as in the above-mentioned countries, or of a tremendous extra expenditure of highly-skilled labour, as in the cases of Japan, China, Thailand, etc.

‡ In the U.S.A. in 1940 the investment needed for a profitable farm was estimated at 29,000 dollars for maize-growing, 25,000 dollars for sheep-raising, and 17,000 dollars for wheat-growing. By 1958 these figures had risen to 97,000, 84,000 and 81,000 respectively.[83]

capital—enterprises of intensive agriculture have not been able to increase in area, and there have been no obvious manifestations of centralisation.

Wherever these two restrictive factors have not operated, and where, in fact, capitalist agriculture in the strict sense has been able to develop in the pure state, the tendency towards concentration and centralisation of capital has, however, clearly shown itself in agriculture. This is especially true of the U.S.A., and to a smaller extent of Germany.

Agricultural concentration in the United States[84]

Type of farm	*1920*	*1925*	*1930*	*1935*	*1940*	*1945*	*1954*	*1959*
1. Less than 50 acres:								
% of total number	35·7	37·9	36·5	39·5	37·5	38·4	36·5	28·4
% of total area	6·0	6·1	5·7	5·6	4·7	4·1	2·9	2·0
2. Between 50 and 500 acres:								
% of total number	61·0	58·8	58·7	56·7	58·2	56·8	57·8	62·5
% of total area	60·4	59·0	55·3	54·2	50·4	45·2	39·8	36·5
3. Between 500 and 1,000 acres:								
% of total number	2·3	2·3	2·5	2·5	2·7	3·0	4·0	5·4
% of total area	10·6	10·5	11·0	10·8	10·8	10·6	11·4	12·3
4. Over 1,000 acres:								
% of total number	1·0	1·0	1·3	1·3	1·6	1·9	2·7	3·7
% of total area	23·1	24·3	28·0	29·4	34·3	40·3	45·9	49·2

In other words, the largest farms (categories 3 and 4), which in 1920 occupied only a *third* of American agricultural land (33·7 per cent), by 1959 already occupied more than *three fifths* of it (61·5 per cent). This growth was moreover nearly entirely accomplished by the largest farms, those exceeding 1,000 acres.

In Italy, where the penetration of capitalism into the countryside has been going on at a rapid rate for over a century, comparative statistics are not available, but the result is extremely eloquent. Here is the division of landed property and income from land among private persons in 1948, as given in publications of the I.N.E.A. (National Institute of Agrarian Economy):

Type of property	*Percentage of total number*	*Percentage of total area*
Up to 0·5 hectares	53·9	4·1
From 0·5 to 2 hectares	29·4	13·3
From 2 to 5 hectares	10·1	13·6
From 5 to 25 hectares	5·5	24·2
From 25 to 50 hectares	0·6	9·7
Over 50 hectares	0·5	35·1

This means that the 0·5 per cent of large landowners possess more land than the 95 per cent of small landowners. 502 very large landowners, owning more than 1,000 hectares each, possess more land

than 5,135,851 small landowners, each of whose properties is no larger than 0·5 hectares.

Bracket of taxable income	*Percentage of No. of taxpayers*	*Percentage of total taxable income*
Up to 100 lire	49·1	2·2
From 100 to 400 lire	27·8	8·5
From 400 to 1,000 lire	12·5	11·3
From 1,000 to 5,000 lire	8·5	25·1
From 5,000 to 10,000 lire	1·1	11·0
Over 10,000 lire	1·0	41·9

We find here an income structure fully corresponding to the structure of property. One per cent of the landed taxpayers have a total income which is *double* the income obtained by 30 per cent of the landowners; 3,531 very large landowners who declare more than 100,000 lire of taxable income possess the same share of the total income declared for taxation as 7,030,397 small landowners who declare less than 400 lire each.*

The wretched lot of the agricultural worker

It is the constant pressure brought to bear on the wages of the agricultural workers by the thousands of small peasants clinging to their little bit of land and ruthlessly sacrificing their own standard of living and that of their family, that basically explains the poverty of these workers, and their pay which is much lower than that of the workers in industry and trade. Country life, the absence of the new needs created by urban existence, the payment of wages partly, or even wholly, in kind, are factors which still further bring down the wages of the agricultural worker. The latter is often a seasonal worker, or even a migrant; if he has another job during the dead season he may be able just to reach subsistence level. If, however, this second job is not to be had, especially in the under-developed countries, he sinks to the lowest depths of human misery.

In the long run, however, the evolution of the agricultural worker's lot depends less on the special conditions of agriculture than on the general rate of expansion of industry. When this rate is such that it results in reducing the industrial reserve army, the exodus from the countryside will become bigger and bigger. An all-round shortage of agricultural labour will appear in the countryside, entailing a rise

* In Mexico, thirty years after the agrarian reform of 1910 which distributed part of the old semi-feudal estates among the landless peasantry, for cultivation in the form of agrarian communities, or *ejidos*, 63·87 per cent of the peasants had been again reduced to the lot of landless agricultural workers, 26·42 per cent of the peasants lived in the *ejidos*, and 4·25 per cent of the peasants, the landowners, had acquired the best land and the rich farms. Since 1946 this tendency has become still more marked.[85]

in agricultural wages, though these will not reach the same level as wages in industry.

When the long-term tendency is, on the contrary, for the industrial reserve army to grow, the agricultural workers, competing fiercely among themselves in order to find some work for a few months of the year at least, put up with the lowest possible wage, often a mere pittance. Their ranks are swollen, moreover, by the mass of small landowners and small farmers whose incomes from their "enterprises" are insufficient for them to make ends meet. Under these conditions there can be no question of a long-term rise in agricultural wages:

"When there is a surplus of agricultural labour and, consequently, unemployment and under-employment exist, each worker is probably more concerned with finding work than with getting a high wage . . ." writes the official report of the United Nations Organisation on *Problems of Agrarian Reform.*[86] It should be added that the big farmers in many countries endeavour to create artificially this plentiful supply of agricultural labour by organising large-scale *immigration of seasonal workers*. This was notoriously the case in Germany before the Second World War (Polish workers). It remains so in the U.S.A., where nearly half a million *braceros* (Mexican seasonal workers, often recruited on a more or less compulsory basis), working for wages as low as 16 to 25 cents an hour, bring about a fall in the wages of agricultural workers, which are as a rule *less than half* the average wages paid in non-agricultural employment.[87]

From the theories of Malthus to agricultural Malthusianism

In 1798 the British clergyman Robert Malthus published anonymously a pamphlet entitled: *Essay on the Principle of Population*, in which he sounded the alarm for mankind by outlining an extremely gloomy prospect: observing that the increase in population was taking place in geometrical progression (2, 4, 8, 16, 32, 64, etc.) whereas, so he claimed, agricultural production could increase only in arithmetical progression (2, 4, 6, 8, 10, 12, etc.), he concluded that mankind was threatened with overpopulation unless it managed to restrict its own procreation. One should therefore applaud the efforts of industrialists to keep workers' wages down to the minimum, as this would set a natural limit to procreation by the workers. As, however, the risk of overproduction of goods might arise in this way, it was necessary to increase the share of the national product which served unproductive consumption by landowners, that is, ground rent. Malthus thus appeared as the defender of the landowners, in face of the agitation for the abolition of ground rent.

The experience of the nineteenth century has shown that Malthus was wrong on two counts. On the one hand, the increase in population fell off with the subsequent progress of technique and culture in

the advanced countries.* On the other, the mechanical revolution, belatedly taking hold of agriculture, has increased production in this sphere to a degree much greater than "arithmetical progression". As a result, since the last quarter of the nineteenth century, it has no longer been overpopulation but *overproduction of agricultural products* that has seemed to threaten society.[89] Instead of restricting births, it is agricultural production that men have tried to restrict by all possible means: agricultural Malthusianism had appeared.

In the same period, however, serious scientists, notably the German Liebig, had drawn attention to a really disturbing phenomenon, the increased exhaustion of the soil, the *Raubbau*, resulting from greedy capitalist methods of exploitation aimed at getting the highest profit in the shortest time. Whereas agricultural societies like China, Japan, ancient Egypt, etc., had known a rational method of carrying on agriculture which conserved and even increased the fertility of the soil over several thousand years, the capitalist *Raubbau* had been able, in certain parts of the world, to exhaust the fertile layer of soil, the humus, in half a century, and thereby to cause erosion on a large scale, with all its harmful consequences.

These warnings were not listened to. The great agricultural crisis at the end of the nineteenth century attracted attention more and more to the problem of overproduction. The agricultural crisis which prevailed between 1925 and 1934 created a permanent psychosis of agricultural overproduction in the bourgeois world. Agricultural Malthusianism triumphed. Huge bonuses were given to peasants for them *not* to cultivate their land or grow certain crops. Eight million head of cattle were slaughtered in the U.S.A. in 1934. The area planted with cotton was reduced by nearly a half in that country—from 17·3 million hectares, on the average, between 1923 and 1929, to 9·8 million in 1938. In Brazil, 20 million bags of coffee were burnt between 1932 and 1936, or an amount sufficient to meet *the whole world's needs for eighteen months*. Nobody was then worrying about a threatened overpopulation of the world.

The Second World War, the great setback to agricultural production which it caused in some countries, the beginning of the industrialisation of backward countries, accompanied by a great increase in population, the rise of the revolutionary movement in the Far East, driven forward by the waves of famine which swept over that region, made the ideas of Malthus topical again. An old British writer, a precursor of Utopian socialism, Robert Wallace (1679–1771), had

* Defending a bold thesis, Joshua De Castro declares that, in our age, it is not overpopulation that causes famine, but famine (or, more precisely, chronic undernourishment) that causes overpopulation. He endeavours to prove this thesis by examining the influence of undernourishment (especially in animal protein) on the index of human fertility.[88]

already maintained, in his work *Various Prospects,* that, though socialism was good in itself, it would nevertheless lead to a great misfortune, namely, the overpopulation of the world and the danger of mankind's extinction. Prophets of doom who have appeared since the Second World War have tried to show that it is much more urgent to combat the increase of population than to raise the standard of living of the colonial masses, which would entail the risk of causing still greater over-population.

Two important works especially, *The Road to Survival,* by William Vogt, and *Our Plundered Planet,* by Fairfield Osborne, have seemed to reach these conclusions. Both of them describe a real evil: the irrational methods of agriculture inherent in the frenzied search for profit have exposed a large part of Asia, Africa, and both Americas, to a rapid erosion of the soil. There has followed from this a chain reaction which increasingly restricts the extent of land normally cultivable. To check this evil it is above all necessary to check the erosion process, through a vigorous intervention by the public anthorities. Beyond this first conclusion, which he himself regards as cautious, Osborne sees no long-term solution of the problem. Indeed, he declares that there is no such solution. Vogt suggests vigorous measures to restrict the growth of the population, and welcomes disasters such as wars, epidemics, etc., because they operate radically in this direction.

Though the danger indicated by Vogt and Osborne is a real one, it is from the very start wrongly defined. Several of their assertions, such as that it is impossible to reconstitute the layer of humus which gives the soil its fertility, do not correspond to reality. Again, it is wrong to calculate the possibilities of feeding mankind on the basis of the land surface *at present cultivated.* U.N.O. statistics estimate at 440 million hectares the world's reserves of cultivable land, an amount equivalent to all the land under cultivation in the U.S.A., India, China, France, Australia and Canada, or an area capable of feeding 1·5 billion people, given a rational system of agriculture.* Over and above these immediate reserves, it is possible to improve a huge area of land which is regarded by Vogt and Osborne as finally lost to agriculture.

* "According to Kellogg (*Food, Soil and People*) it may be assumed that at least 20 per cent of the unused tropical soils of the Americas, Africa and the great islands, such as New Guinea, Madagascar and Borneo, are cultivable; this would add one billion additional acres to the 300–400 million acres [of reserves] in the temperate zones. This area of 1300–1400 million additional acres would indeed be a tremendous reserve for increasing food production. To translate this potential into reality will mean a complex and difficult job which is bound to employ humanity for years. It will require careful planning and in particular simultaneous development of transportation and secondary industries."[90]

New chemical products such as *krilium** or liquid ammonia fertiliser, make possible a considerable increase in the fertility of the soil. The transition to intensive agriculture in countries like the U.S.A., Canada, Australia, the Argentine, and the improvement of agricultural technique in the backward countries would make it easily possible to double the output per hectare and greatly increase the world's production of agricultural produce. If modern agricultural science were used throughout the world, it would be possible to produce sufficient foodstuffs to feed four billion people, so claimed the Finnish Professor Arturi I. Virtanen, recipient of the Nobel Prize for chemistry, at the 12th international conference of pure and applied chemistry, held in New York between 10th and 13th September, 1951.[91]

Outside agriculture in the strict sense of the word, the first experiments in food production otherwise than from the soil have already proved satisfactory. In Jamaica a factory is at work producing food from yeast; the cultivation of algae offers unlimited prospects of food supply; and cultivation without land (hydroponics) would make possible a purely "industrial" solution of the food problem.

It is true than an effective struggle against erosion, a rational organisation of agriculture, a transition to intensive cultivation in overseas countries, a development of food production otherwise than from the soil "would bring with them a social revolution of such magnitude that the whole structure of human society would be torn apart."[92]

But when mankind is confronted with the choice between perishing and reorganising society on a more rational basis, it is not possible to doubt which decision is dictated by both reason and feeling. This is all the more so because at the very moment when erosion threatens to destroy the material foundation of all agriculture, and when hundreds of millions of human beings are terribly undernourished —the daily intake of calories in India was 1700 in 1952, or *half* the normal level!—agricultural Malthusianism is manifesting itself again in the most scandalous way, foodstuffs (including 3·5 billion bushels of grain) to the value of 10 billion dollars (4,500,000,000,000 French francs!) being put in store in the U.S.A. and vast destructive operations being carried out on crops of maize, potatoes, and vines,† etc. At the end of 1957 the United States authorities boasted that they had "saved" a billion dollars by . . . *preventing* the cultivation

* *Krilium* increases the growth of plants and prevents the soil from being carried off by water or wind, through increasing its capacity for retaining water and air. It is considered that *krilium* is between 100 and 1,000 times more effective than humus, natural fertilisers or compost.

† *Le Monde*[94] reported that 17 million hectolitres of wine were "denatured" in France in 1951–53 and that an unsaleable surplus of more than 15 million hectolitres was expected at the end of August 1953.

of some nine million hectares![93] More than ever is it obvious that the problem does not lie in the absolute increase in population but in the capitalist condition of production and distribution which creates a situation of plenty and poverty side by side.

Ground-rent and the marginal theory of value

The theory of ground rent worked out by Ricardo and perfected by Marx was the point of departure of the marginal theories of value which, in the second half of the nineteenth century, challenged the labour theory of value.* According to Marx's theory of ground rent, it is in fact the *demand for agricultural products* which in the last resort determines the price of these products. This price is based on the value of the unit produced on the plot of land with the worst conditions of productivity (marginal price) where products find a buyer. According to the fluctuations of demand it either will or will not embody the absolute ground rent (in those countries where there is no more unoccupied land, i.e. where the monopoly of landownership is complete) and it either will or will not embody a differential rent (depending on whether the less profitable plots of land are cultivated or given up).

The transformation of this theory of ground rent into a general theory of value is based on two mistakes of analysis. In the first place, it leaves out the *special conditions of property in land* which give rise to ground rent. Further, it leaves out the different institutional conditions that govern ownership of land, ownership of capital and "ownership of labour-power", respectively, under the capitalist system.

Ground rent does not arise because the land is a fundamental factor in the process of production. It arises only because there inserts himself between the land and this production process a landowner who *arbitararily demands* his share of the amount of income created in this production process. To proceed from the way in which this share is obtained in order to construct from it a general theory of the division of *income created in the production process* creates a serious error of logic. In a "pure" capitalist society from which ground rent was banished, for example, by nationalisation of the land (and the economy of certain overseas countries in the second half of the nineteenth century was somewhat like that), it would be difficult to proceed from . . . nothing to explain the whole mechanism of the division of income and the production of value within the capitalist mode of production!

A generalisation from the special case of ground rent would be justified, theoretically, only in a society in which the "capitalist" entrepreneurs were faced simultaneously with landowners, slave-

* Other aspects of these theories, their subjectivist nature, etc., will be dealt with in Chapter 18.

owners and owners of machines. The laws determining the share taken by these three categories of owner from the current income created by "capitalist" production would doubtless be similar to those which determine the appearance and fluctuations of ground rent. But we have been careful to put the word "capitalist" between inverted commas because such a society, in which there existed neither monopoly of the means of production by the bourgeois class nor free labour (free from serfdom or slavery), would, of course, not be a capitalist society.

For ground rent to appear it is necessary not only that ownership of land be a monopoly* which the bourgeoisie has not managed to break, so that the landowners are able to prevent the capital invested in agriculture from participating in the general equalisation of the rate of profit, and thus to collect their share of the value created in agriculture; it is further necessary that the production of agricultural commodities be carried on under special conditions which escape from control by capital.

According to the supporters of the marginal theory of value, three kinds of "owner" appear on the market, in order to "exchange" on an equal footing, three different "commodities", the prices of which will thus be determined, in complete equity, by the "marginal product, or income", that is, by the last, that is the least profitable, unit sold—owners of land, owners of capital, and owners of labour-power.

Now, there is a fundamental qualitative difference—through the very functioning of the capitalist mode of production—between these three categories of "owner". In the classical capitalism of the nineteenth century in Western Europe (the very capitalism in which ground rent appears in its complete and classical form!) there is *an absolute shortage of land*; total potential agricultural production hardly covers society's need for food. It is for this reason, and for this reason alone—because capital cannot extend at will the area of cultivable land, at least in Western Europe—that ground rent can appear and continue for a long period. As Marx observes, the importation of food plays only a regulatory role, preventing the prices of agricultural products from exceeding even their value, and the landowners from securing for themselves part of the surplus value *produced in industry*.†

Capital, for its part, comes on to the market in conditions of *relative shortage*. By its very logic it prevents an abundance of capital from undermining the profitability of capital: this is the objective

* We shall see later on (Chapter 12) that a mechanism comparable to that of ground rent regulates *monopoly profit* in the present phase of capitalism (cartel rent, etc.).

† Comparable conditions exist today in countries like India, where a "secular shortage" of foodstuffs prevails.

function of the cyclical crises.* But the "owners of labour-power" are weakened in advance by the conditions of *relative abundance* in which they have to offer their commodity on the market. This abundance (industrial reserve army) is not only the result of the historical conditions in which capitalism was born. It is also a result of the mechanism of capitalist production itself, which continually replaces men by machines and periodically "releases" masses of unemployed from the production process.

It will now be seen that there can be no question of negotiation on the market "on an equal footing" between these three classes. The dice are loaded. The rules of the game are such that one class lays down conditions dictatorially (the class of owners of land) whereas another class *has to accept* what is offered it (the proletariat).

These rules of the game operate all the more in a sense which reduces to absurdity the idea of an exchange of "marginal products", as the capitalist class does not "work" for subsistence but in order to accumulate capital. Its subsistence is guaranteed. When the wages demanded by the workers seem to it to be too high, it may prefer to close the gates of its factories rather than "work" for an insufficient profit, or at a loss.

In their turn, the landowners may prefer to leave some of their land to lie waste rather than let it at a price such that the total rent they draw is too low. By withdrawing this land from cultivation they contribute, moreover, to reducing agricultural production and so to reconstituting their rent at a later stage.

In contrast to this, the proletariat is in a special situation: that of not possessing any reserves beyond its two hands, which it *must* hire out if it is not to die of hunger. Not being in a position to "await a more propitious moment of the conjuncture", it is thus compelled to accept a wage which is not determined by the "marginal productivity of labour" but merely by the average subsistence needs in the given country and period. Once again, the dice are loaded.

To resume our imaginary description of a society in which this "negotiation on an equal footing" might be established, it would be necessary that, on the one hand, the bourgeois should possess reserves of foodstuffs, say, for several years (or that there should be large tracts of land without an owner), and that, on the other hand, the workers should likewise possess reserves of foodstuffs, or money, that would enable them to supply their needs and those of their families, for several years. In such conditions as these, "negotiations" between landowners, capitalists and producers would be placed on a relatively equal footing, and the division of income that would result would be quite different from that which governs the capitalist mode of production. But it is obvious that in a society like this there would neither

* See Chapter 11.

exist a monopoly of capital in the hands of the bourgeoisie nor a proletariat as a class, so that it would not be capitalist society.

A critic of Marx whom recently there have been mistaken efforts to rehabilitate, L. von Bortkiewicz,* does not grasp why the owners of land are able to *compel* the capitalist farmers to pay absolute ground rent, even on the least profitable land.[96] He approaches this question logically instead of historically.† Seen in this way the answer is simple: they can compel the farmers to pay absolute rent, and avoid the giving-up of the least fertile land, so long as there is a permanent shortage of foodstuffs, that is, so long as, owing to the delay in revolutionary technical changes in agriculture, the whole of a country's agricultural production is hardly adequate to meet its needs.

When this condition disappears, especially as the result of the opening up of the vast uncultivated lands of the two Americas and Australia, absolute rent may indeed tend to disappear, over large areas, as Marx foresaw. In fact it would already have vanished over a large part of Western Europe, but for the protectionist policy by which it is artificially maintained (or re-established). Under these conditions, it is only through exceptional circumstances of shortage (notably during world wars) that prices suddenly flare up, re-establishing absolute ground rent in its former grandeur.

* This is attempted by Sweezy in *The Theory of Capitalist Development.*[95]

† Von Bortkiewicz shows a similar lack of historical sense when, following Lexis, Böhm-Bawerk, Sombart, Stolzmann, Cornélissen and others, he declares that the transformation of value into price of production does not reflect any real historical process[97] Today it has become almost commonplace to stress that this transformation reflects the transition from petty commodity production (based on *stable* technological conditions) to capitalist society, based on technological conditions which are in *perpetual revolution.*

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REPRODUCTION AND GROWTH OF THE NATIONAL INCOME

New value, new income and tranferred income

IN a society where there was no economic activity other than the capitalist production of commodities there would be no income other than that created by this production. Labour-power, as we know, has the dual function of conserving the value of constant capital (the stock of machinery, raw materials, buildings) by transferring part of this value to currently produced commodities*, and of producing all the new value available to society. The first-mentioned property of labour-power makes it possible to conserve the accumulated stock of social wealth and instruments of labour, which determines the average level of the productivity of labour and the material civilisation of the given society. The second makes it possible to create an income—a "value added"—which in capitalist society is divided between income of labour (wages) and income of capital (surplus-value).

In practice, however, bourgeois society—the only form of society which makes the production of commodities universal—does include other economic activities and other sources of income besides this capitalist commodity production. One can in fact distinguish:

(a) The sector of petty commodity production which survives in capitalist society (craftsmen and small peasants working for the market without employment wage-labour);

(b) The sphere of distribution and that of transport which is *not* indispensable for the consumption of commodities. The wages paid in this sphere come out of society's capital; the capitalists obtain part of the surplus-value of society.†

(c) The sector of private services, the enterprises in which capitalist entrepreneurs and wage-earners provide specialised labour services to the consumers;

(d) The sector of public services, in which the employees are paid by the State (and subordinate public authorities), and which sell

* "The raw material is considered as receiving an increment of cost . . . from the machine; the machine gives off, so to speak, a part of its value, which becomes embodied in the finished product."[1] But the machine cannot "give off" any part of its value unless it be used, set in motion, by living labour. Without the application of the latter it purely and simply depreciates.

† See Chapter 6, sections "Commercial capital and commercial profit", and "Commercial capital and labour-power engaged in distribution".

services to the consumers (the sale of piped water, gas and electricity by public enterprises must be included in the commodity production branch, since here it is material goods that are being sold, not specialised labour);

(e) The public services provided free by the State or by public enterprises (free primary education, etc.);

(f) The production of use-values which do not appear on the market: production by subsistence farms, household production, "do-it-yourself", etc.

Of these six sectors which are outside the realms of capitalist commodity production in the strict sense, the first four retain the outward form of buying and selling. Except in the first case, that of the production of value which is not accompanied by production of surplus-value,* what is involved is the buying and selling not of material goods but of labour-time, specialised labour, etc. As for the last two sectors, they are outside commodity production as such.

The circulation of commodities in capitalist society results in their consumption, whether productive or unproductive; the intermediate phases that these commodities pass through before being consumed do not create new value. The enterprises which have charge of them during these phases cannot make profit from them except by appropriating part of the surplus-value already produced during the production-process. But distributive activity creates *new incomes*—the incomes of the wage and salary earners who work in the distributive sector. *These incomes do not constitute a part of the surplus-value currently produced by the productive workers, but a part of the social capital invested in this sector.*

Do these incomes tend to reduce the wages of the industrial workers? This view can be maintained only on the basis of the theory of the "wages fund", which regards the total amount of wages paid out during a given period as pre-determined. In reality, that would be so only if all the social capital available were wholly invested—if, in other words, every sum not invested in trade, or in the service sector, were automatically invested in industry, and if the organic composition of capital were rigid and stable.

* In so far as the peasants and craftsmen produce commodities *in competition* with the capitalist sector, three cases may present themselves. Either the productivity of their labour is equal to the average, in which case their products are sold at their exact value; or their productivity is lower than the average (this is the usual situation), in which case part of the value they have created is transferred to certain capitalist sectors; or else their productivity is, by way of exception, higher than the average (or, what comes to the same thing, the total production of a craft sector is not adequate to meet the effective demand), in which case, the petty commodity producers appropriate a small quantity of the surplus value produced in the capitalist sector of the economy. This last case occurs especially in periods of sudden shortage, during or just after wars, etc.

Actually this does not happen. The division of social capital between the different branches of the economy; the division of income between surplus-value (potential new capital) and wages, and of capitalised surplus-value between new constant capital and new wages (variable capital); the division of savings (new potential capital) between investment and hoarding—all depend on a number of different relations and many different mechanisms, which are much more complicated than is supposed by the supporters of the "wages fund" theory.*

The production of commodities and the allocation of available social capital thus create essentially the incomes of the workers (both productive and unproductive) and those of the capitalists (in the different spheres of capital investment). But the *circulation* of incomes complicates the picture; when these incomes buy a commodity they merely realise their value and create no new incomes, but when they buy services,† they create the illusion of giving rise to new incomes. Actually, they are only transferred.

It is not easy to draw the line between new and transferred incomes. This must be done, however, if we are to estimate economic growth adequately and make comparisons of national income, in time and space. The problem may be regarded as a purely conventional one when it is a matter of calculating this income in one country during a very short period; but it becomes vital when this calculation is extended over a long period and international comparisons are brought in.

If we neglect the distinction between new value, social income newly created, and incomes which are merely transferred, we inevitably land ourselves in obvious contradictions, for instance, *Pigou's paradox*. If we add to the national income of a nation the wages of its domestic servants, we come to the conclusion that the national income declines, the nation becomes poorer, when bachelors marry their housekeepers, who thenceforth no longer receive wages for doing the same work as they were doing before they married.[3] The transformation of a million beggars into producers (e.g. agricultural producers, as a result of

* Jean Marchal and Jacques Lecaillon[2] have undertaken a somewhat Byzantine exegesis of the writings of present-day Marxists in order to show that, according to Marx, the payment of the unproductive wage-earners takes place at the expense of the productive ones. True, they do quote other writings which maintain a different point of view. The whole of their study is fundamentally mistaken, however, because it does not proceed from *the real conditions in which the accumulation of capital takes place*. In a period in which there is a lack of fields for investment where more than the average profit can be obtained, when it is more and more difficult to realise surplus value, the development of the unproductive sectors tends notably to limit the scope of chronic unemployment, and thereby to make possible a greater stability (or even growth) of real wages.

† A service is the useful effect of a use-value—essentially of a contribution of skilled labour—the production and consumption of which coincide, because it is not embodied in a material product.

internal colonisation) would in no way increase the national wealth, if the money incomes of these peasants did not exceed the money incomes they received when they were beggars.*

The attitude of academic economics is contradictory in this respect. It eliminates from the calculation of the national income a whole series of paid activities, or incomes regarded as transferred incomes (notably the payments made to unemployed persons, policemen, firemen, etc.).[5]† But it includes most of these activities as soon as they become private instead of public. It eliminates from the national income every addition to prices which results from indirect taxes, but on the other hand it includes increases—usually quite arbitrary ones—in the case of services, which nevertheless do not create any new value but merely increase the incomes *transferred* from other sectors to the services sector.

Of course, the two series of additions each serve different purposes. The total amount of *incomes of all the households, private enterprises and public organisations* provides the data needed for various analyses, for example, in order to determine at what total of money incomes danger of inflation will arise, given a certain productive capacity. The total amount of net value newly *produced* in society is, however, the essential concept for measuring the possibilities and successive staging-points of economic growth. The way national income is nowadays calculated by official Western economics is a hybrid compromise between these two principles, and leads to serious mistakes in both directions.

Certain writers implicitly accept the soundness of this view. In *The Organisation Man,*[6] William H. Whyte, Jnr., correctly observes, for example: "The great majority of small business firms cannot be placed on any continuum with the corporation. For one thing, they are rarely engaged in primary industry; for the most part they are the laundries, the insurance agencies, the restaurants, the drugstores, the bottling plants, the lumber yards, the automobile dealers. They are vital, to be sure, but essentially they service an economy; they do not create new money within their area and they are dependent ultimately on the business and agriculture that does."‡

* Bauer and Yamey point out that in a number of under-developed countries the incomes of the beggars are not at all inconsiderable.[4]

† On the grounds that these activities are paid for out of the product of indirect taxation.

‡ See in Chapter 18 a surprising application of this idea. This quotation has all the greater value in that it relates to the most advanced capitalist country in the world. Some writers, such as J. Markovitch,[7] have declared that while the purchase of services may properly be regarded as transfer expenditure in backward countries, this is not so in advanced countries. Above all, the *exchange of services for services* ought not to be overlooked. All the same, even according to the present academic method, the purchase of a service by an unemployed person must be left out of account. Transfers at the third stage do not modify the problem at all.

Carl Shoup writes, from his standpoint: "National income analysis is interested in production, and it reserves the term 'investment' for the kinds of things that imply production, either current or past. The purchase of a share of stock, even if it is newly issued stock, is not an act of investment, in national income terminology."[8]*

Again, Simon Kuznets argues in favour of the exclusion from the national income of what he calls the "negative consequences of large-scale urbanisation" in the case of *international* comparisons between national incomes (but why include them, then, in estimates on the national scale?):

"A clear case is the transportation of employees to and from work —an activity that can hardly be said to constitute direct welfare to ultimate consumers and is merely an offset to the inconvenience that large-scale industrial production imposes upon the active participants in it . . . Payments to banks, employment agencies, unions, brokerage houses, etc., including such matters as technical education, are payments not for final goods flowing to ultimate consumers, but libations of oil on the machinery of industrial society—activities intended to eliminate friction in the productive system, not net contributions to ultimate consumption."[10]

Nevertheless, these fragmentary opinions have not yet made it possible to re-examine objectively, using precise scientific criteria, the way of calculating the national income, which, consequently, is overestimated by some 20 to 30 per cent, according to Kuznets.[11]

In order to determine the *value of (gross) production* in a country during one year, it is not enough merely to add up the values of all the commodities that issue from any enterprise in the course of this year. Otherwise one would inevitably include duplicated entries, since some of the finished products of one enterprise reappear in the form of raw material in the ultimate value of the products of another. It is necessary either to set aside altogether all the unfinished products, and add to the value of the finished products manufactured during

* The same writer nevertheless falls immediately into the error of mixing up productive and unproductive labour, when he goes on: "In a country where household services have come to be performed largely outside the home, or inside the home for pay, and the housewives use the time thus freed to work in paid occupations, the national income as at present computed will be larger than in a country where most of these services are performed by the family itself. The production of the former country is not actually as much greater as the difference in national income figures would indicate."[9]

The author forgets that during "the time thus freed", the housewives, having become working-women, produce new commodities and create new value, something which, for once, is faithfully reflected in the calculations of national income. And even from the standpoint of national accounting in hours of work, the saving accomplished by the carrying out of domestic work in specialised enterprises is enormous.

the year merely the fluctuation in the stocks of raw materials, or else to add up merely the value added in each enterprise.[12]

No different method should be employed when the *new social income* of a country during the same period is to be established. Just as one cannot merely add up the value of all the commodities, one cannot merely add up all the individual incomes. It is necessary to determine exactly which incomes—created by *production*—represent a net addition to the national income, and which are merely the result of transfers, whether private or public. Otherwise, the total amount of income will contain duplicated entries, exactly as would happen with the total amount of the prices of all the commodities.

The State, surplus-value and social income

Up to now we have brought into our model of a "pure" society of commodity producers only persons engaged in distributive activities, together with persons selling personal services to the consumers. We must now add the totality of the economic relationships characteristic of the activities of what are called the "public authorities", in the widest sense of the expression.

In so far as the State is itself a commodity producer, the incomes created by this production are naturally added to the income of the entire community under consideration. It is of little significance, in this case, that the "profit" (or the "loss"), that is, the surplus value created, is annexed not by a group of capitalists but by the State budget. Similarly, it makes little difference that the producers are public employees.

But in all the capitalist countries the bulk of the State's income, and of the income it distributes, does not originate in the production and sale of commodities by the State itself. This income originates in four main ways:

(a) Direct Taxes: these represent part of the income created by commodity production, and so part of the wages and the surplus value produced during the period under consideration.

(b) Public Loans: these transfer part of the accumulated wealth of the nation from individuals to the State. To this can be added a small part of the wages of the most highly skilled workers, which is used for the purchase of bonds. The income thus obtained by the State comes, accordingly, from the surplus value actually or potentially accumulated, and from the saved income of the middle classes, which is thus transformed into capital. In exchange, the State transfers to subscribers to public loans a part of its own current income.

(c) Indirect taxes: turnover tax, customs duties, excise, purchase tax, etc. What is involved here is not a share of already created income which is thereby redistributed, but *a general addition to the selling price of commodities*, which, through an all-round increase in prices,

brings about a reduction in the real income of all consumers. This reduction is not proportional to *total* income but only to income spent on goods subject to these taxes. In fact, almost the whole of wages is spent on these goods, whereas the bourgeois classes do not need to spend a considerable share of their income in this way. Indirect taxation thus affects the workers much more severely than the capitalists, and is the fiscal device preferred by every reactionary capitalist government, to the extent at least that goods in current consumption are not systematically relieved of tax-burdens and the latter shifted on to luxury goods.

(d) Inflationary issue of bank notes: this, provided it remains within certain limits, is a source of real income for the State, since it enables the State to purchase commodities and pay salaries with these depreciated notes. It has the same effect as an increase in indirect taxes: an all-round increase in prices which hits the wage-earners and lower income-groups much harder than the well-to-do classes, who can transform a substantial part of their income into "stable values" (gold, foreign currency, real estate, industrial shares, works of art, etc.).

These four kinds of public income thus constitute only an appropriation by the State—whether directly, or indirectly in the form of the reduction of real income resulting from the rise in prices—of income created by the production of commodities, or subsequently redistributed by the circulation of income and commodities. They cannot be taken into account when it is a question of determining the growth (or the reduction) of the newly-created value, that is, the net social income, of a community. In calculating this income one can start from the gross income of the wage-earners and the gross surplus value, or one can start from net incomes, adding to these the total of direct taxation and deducting the consequences of currency inflation, using stable price indices.[13]

If the State merely annexes incomes which result from production, in so far as it is not itself a producer, the way in which it makes use of this income may have decisive effects on the volume of net social income, that is, on the level of production itself. Its expenditure consists, in fact, of purchases of commodities, investments, wage and salary payments and gifts of various kinds, together with the payment of interest on the public debt. When the State budget absorbs a substantial share of social income, the allocation of this expenditure between the different sectors mentioned above can modify the "spontaneous" allocation of demand as between different commodities, and thus influence the general progress of business, or even modify the way the industrial cycle evolves.*

* These problems are dealt with in more detail in the last section of this chapter, and also in the following chapter and in Chapter 14, section "A crisis-free capitalism?"

The sharing-out of surplus-value

An official Japanese publication shows, for the year 1951, the following share-out of "value added", i.e. newly-created value, in Japanese industry as a whole:

	billion yen
Wages and salaries	706·8
Interest	111·8
Taxes	317·2
Dividends	40·3
Undistributed profits	150·9
	1,327·0[14]

The apparent rate of surplus value (without taking into account the surplus-value appropriated by the capitalists operating outside the sphere of production) is thus around 100 per cent. Actually, the category of *wages and salaries* includes the income of all the higher managerial personnel (managers and business executives) who belong sociologically to the bourgeois class rather than to the working class. Their incomes should be regarded as taken from surplus-value: "But although part of the salaries and other emoluments, of managers and executives should, by the economist, be included in wages, another part is a rough contractual equivalent for, or share in profits in our sense" states Schumpeter.[15]

And Woytinsky[16] justifiably criticises the official statistics which include in "income of labour" "the fees of directors of limited companies, the salaries of higher civil servants and many other officials . . . The statistics of national income almost always tend to over-estimate the income of labour, while underestimating other forms of income."

To go back to our Japanese table: the total of wages in the strict sense will thus be lower than 700 billion yen, and probably lower even than 663·5 billion yen, that is, half of the "value added" in industry. Let us, however, stick to the hypothesis of an amount of wages exactly equal to half of this "value added" of 1,327 billion, i.e. 663·5 billion yen. In this case, the apparent surplus-value also amounts to 663·5 billion yen, shared out as follows:

	billion yen
Factory managers, company directors, etc.	43·3
Banks, rentiers and landowners	111·8
Shareholders	40·3
Undistributed profits (accumulation funds of businesses)	150·9
The State (taxes)	317·2
	663·5

In the case of Japan, as with most large industrialised countries, the State takes a substantial share of the "value added" (the surplus

value which arises in industry). It is not without point, however, to make clear that this means, very largely, a *redistribution of surplus value* among the various sectors of the bourgeoisie. The latter, in fact, profits from the national debt, State contracts and the salaries of the high dignitaries and officials of the State, the Army, the Church, the Judiciary, etc.

The total *surplus-value* produced *exceeds,* moreover, the figure which results from the above sum. The Japanese statisticians, in calculating the value "added", i.e. "newly created" by labour-power, went no further than the factory gates. But, as we know, *commercial profits,* which are not included in these figures, together with the share of these profits which, in their turn, the traders have to surrender to the banks, the landowners, the State, etc., likewise make up part of the total surplus value produced by the worker-producers. Re-examining the share-out of this surplus value from a functional standpoint, we can define the following categories of income:

(i) entrepreneur's and founder's profit, partly represented by the salaries of directors and executives, partly by dividends (on preference shares, founders' shares, etc.), and partly by undistributed profits, which are *available* to the entrepreneurs even if they do not use them as income in the strict sense of the word;
(ii) commercial profit, represented by the incomes of large and medium-scale traders, the dividends and undistributed profits of commercial joint-stock companies;
(iii) interest (income of individuals, companies and institutions advancing money-capital);
(iv) bank profits, which appear partly as interest and partly as undistributed profits or dividends of the banks;
(v) ground rent, the income of landowners (or of building societies), likewise deducted from the total amount of social surplus-value.

In so far as there is no longer a landlord class separate from the bourgeoisie, at least in the chief capitalist countries, the total of these incomes can be regarded as *income of the bourgeoisie,* the sharing-out of which involves only a struggle (competitive, in one way or another) between different sectors of this one class.

The ultimate origin of all the incomes distributed in capitalist society is shown more clearly still in the following table of national income in the United States in 1947[17] (in millions of dollars):

Wages and salaries	121,913
Social security payments	5,588
Income of unincorporated enterprises	45,997

Net Interest	4,293
Dividends	6,880
Undistributed profits	11,195
Corporate profits taxes	11,709

The only entry in this table that presents any problem is that of the profits of individual (unincorporated) enterprises. This includes the income of peasant producers, craftsmen, etc., which cannot, as a whole, be regarded as surplus-value. But, allowing for this qualification, the total amount of surplus value is determined by the total amount of all the entries except wages and social security payments.

The entry "wages", in the strict sense (which moreover includes the income of wage-earners in trade, banking, transport, etc.) constitutes only a part, often remarkably small, of the entry "wages and salaries". Thus, in Great Britain in 1951, out of a total of £8·4 billion shown as "income of labour", only £5 billion or 60 per cent was wages. Salaries—defined by the British blue book as the income of non-manual personnel, namely, managers, supervisors, foremen, technicians, office-workers, researchers, etc.—came to £2·5 billion. Employers' contributions to the national insurance fund amounted to £500 million, the pay of the armed forces to £300 million, etc.[18]

Social product and social income

The value of all the finished commodities produced by a society (a country) during a certain period (a year, for instance) represents the value of the *gross social (or national) product*.[19]

The value of this gross product is made up of newly-created value and conserved value. If we regard the raw material *additionally* produced during the year as finished products, the conserved value contained in that of the gross (national) product is that of the fixed capital used up (machinery, industrial plant and buildings, etc.) together with that of the stock of raw materials. The newly created value, called the *net (national) product* is equal to the value of all the commodities produced, less the value of the constant capital conserved. Or, put another way: the value of the net annual product is equal to the value of all the consumer goods produced together with that of all the *new* means of production.[20] We here find again the distinction between the *value of the annual product* ($c + v + s$) and the value newly-created each year ($v + s$). This new value can be rediscovered more easily by simply adding the new value (the value added) created in all the enterprises.

Assuming that all the commodities produced in the year have been effectively sold, the production of these commodities has created the following incomes: v, the total wages of all the workers; and s, the total surplus-value of the entire bourgeoisie (broken down as

shown above). When the calculation is made on the basis of prices, the indirect taxes added to the selling prices of the commodities, and absorbed by the State, must be added,[21] while taking into account the fact that among the commodities produced (and the incomes distributed) we must also include those produced by the State. *The (national) income is thus equal to the net (national) product*, at market prices, less the indirect taxes, or rather, to the total value of all the finished products, less the conserved value of the constant capital (indirect taxes being regarded as an arbitrary addition to the value).*

Ruggles[22] offers the following table (in millions of dollars) of the *gross national product* of the United States in 1947, which enables us to rediscover with ease our fundamental categories: †

Fixed constant capital used up	Capital consumption allowances (Depreciation charges)	13,299			Gross national product at market prices
Variable capital	Wages and salaries	121,913	National income at factor prices	Net national product at market prices	
	Social insurance contributions	5,588			
Surplus-value‡	Income of unincorporated enterprises	45,997			
	Net interest	4,293			
	Dividends	6,880			
	Corporate profits taxes	11,709			
	Undistributed profits	11,195			
Arbitrary addition to commodity prices	Indirect taxes	18,488			

In the equation between *incomes* and *values of commodities produced*, the word "income" is used, however, in a quite special sense.

* The following problem could be discussed *ad infinitum*—should indirect taxes be regarded as an integral part of the surplus-value produced, and the national income be evaluated at market prices? Or should the national income be estimated on the basis of factor prices, re-evaluating the constituents and deducting the share taken by the State in indirect taxes? The result is practically the same.

† The price of circulating constant capital renewed during the year, the stock of raw materials reproduced, has been similarly broken down in this table into its constituent elements: c (fixed) + v + s + indirect taxes. From the Marxist standpoint this operation is valid, in so far as the value of this stock has been conserved. For, while the raw material embodied in the production of finished products does not represent a new value but only a conserved value, nevertheless the *production* of this raw material obviously gives rise to new value.

‡ Except for part of the income of the independent petty commodity producing producers.

It simply means *potential purchasing power*. Let us study these incomes more closely.

The incomes of the workers, wages, are usually spent, being quickly exchanged for commodities. The working class cannot go on living without realising its wages in commodities. The incomes of the capitalists, however, are divided into two parts:

(i) a part which is *consumed unproductively*, being usually transformed into consumer goods in order to keep the bourgeois class alive, and

(ii) a part which is *saved*, that is, not transformed into consumer goods. This part of bourgeois income is further divided into a part which is *invested* (serving to buy additional means of production, including fresh supplies of raw materials, goods or values, which bring in an income etc.) and a part which is *hoarded*, i.e. kept for a longer or shorter time in the form of money capital.[23]

For all the commodities produced in a given period to be effectively bought, the incomes distributed in the course of this same period must all be effectively spent. If some of the bourgeoisie's income (surplus-value) is hoarded, some of the commodities produced will not immediately find buyers. In the calculation of the national product, as it is normally carried out, the entry "stocks" will become larger for a time. If, however, this process goes on to the point where a crisis of overproduction occurs, the reduction in prices following the slump will reduce the absolute value of this entry, and of the gross product, bringing it down to the level of the value of the raw material, etc., effectively replaced as a result of production.

The above is, of course, only a crude approximation. To find a more exact formula one would have to take a large number of other factors into account. The sale of a commodity does not merely produce income: it also brings in the counter-value of the constant capital used up (sums serving to renew the stock of raw material and depreciate the fixed capital). And this counter-value can for a moment serve as additional purchasing power for commodities which are unrelated to this renewal of constant capital. In this case, the sale of all the commodities currently produced can disguise the reduction of the social capital available in the country concerned.

The stocks of raw material may fluctuate in both directions. If they increase, it has been possible to use part of their counter-value to buy other commodities, which again means that, despite the hoarding of part of the surplus-value, all the commodities produced during this period will have been effectively sold.

Also needing to be taken into account is the movement of prices. If, between the moment when commodities are produced and that

when they are sold, prices fall, then the incomes distributed at the time of production will be capable of buying all the commodities produced, even if some of them have been hoarded.

Finally, there is the effect of relations with other countries. A net export of capital has, in principle, the same effect as the hoarding of a part of surplus-value, while a net import of capital, on the other hand, creates an additional demand for the commodities produced in the country. Similarly, a balance of trade surplus reduces, in principle, the amount of commodities available in relation to the incomes created by producing them. A trade balance deficit however, increases the amount of commodities circulating in the country, in relation to the incomes created by national production.

Despite all these qualifications, and many others, the establishment of a comparatively simple relation between national income (distributed during a year) and the value of the commodities produced during this same period makes it possible to determine the primary origin of the cyclical movement of capitalist production and of crises: the separation in time between the *production* of commodities—and the distribution of incomes which it implies—and the *realisation* of their value by their owners. It is as a result of this lack of an automatic coincidence between purchasing power distributed and commodities produced that the problem of realisation of surplus value can arise for the capitalist owners of commodities.

Distribution of income and realisation of commodities

The relation between incomes distributed in the course of production and commodities produced and offered on the market as counter-value to these incomes is further expressed in qualitative terms:

"Most commodities and services are purchased by two classes of users: consumers and business firms . . . Consumers buy goods to satisfy some physical or psychological need. Businessmen buy goods in order to increase the profits of their companies. The second are aptly called investment goods, the first, consumer goods."[24]

We shall retain, from this definition, first of all this division of the mass of commodities into two broad categories: consumer goods, which are "bought in order to satisfy physical or psychological needs", and investment goods (capital goods), bought in order to enable capitalists to increase their profits. Businessmen are also consumers, and as such they buy consumer goods in order to meet their own needs and those of their families. They devote to this purpose the part of surplus value which is not accumulated. The workers, however, are consumers only, they are not purchasers of investment goods, since their wages are usually inadequate to meet all their "physical and psychological" needs. The total of commodities pro-

duced and incomes (purchasing power) distributed, thus corresponds to the following diagram:

Supply	*Demand*
Consumer goods	Wages.
	Unaccumulated surplus value.
	Surplus value accumulated in order to hire more workers.
Investment goods	Depreciated constant capital.
	Accumulated surplus value.

The dynamics of capitalist production depend essentially on the relations of equilibrium (or disequilibrium) between these different categories.

The value of the consumer goods offered on the market—produced during a certain period of time, say a year—can be broken down into its constituent elements: $c + v + s$. The income created by the production (and sale) of these commodities is obviously inadequate to create the purchasing power needed to constitute their counter-value.

In fact, only the wages (v) of the workers who have participated in producing them, and the part of the profits not accumulated in c (s minus s in c) represent purchasing power relevant to consumer goods. The *conserved* value comprised in the value of these consumer goods, along with the part of surplus value accumulated in constant capital, represent purchasing power for capital goods (machinery, raw materials, etc.). If, in the course of a given year, all production consisted of consumer goods, there would be an inevitable disequilibrium, a supply of consumer goods equal to $c + v + s$, but a demand equal only to v + (s minus s accumulated in c). The *phenomenon of overproduction*, that is, of a quantity of commodities not finding on the market any counter-value in purchasing-power to realise their value, and thus remaining unsaleable or having to be sold off at a loss, would make its appearance.

Alongside consumer goods, however, capital goods are also produced in the course of each year. *And the production of capital goods gives rise to purchasing power for consumer goods.* The workers who work in factories where machines are made receive wages with which they buy, not machines, but consumer goods. The capitalists who own these factories likewise devote part of their surplus value to buying consumer goods. It is thus the total purchasing power created by the production of the two categories of commodities that must be studied in order to determine whether or not there is overproduction of consumer goods.

Furthermore, we have already seen that the production of consumer goods, in its turn, gives rise to purchasing power for capital

goods, needed to replace the constant capital used up in production and perhaps to make possible the purchase of additional constant capital with the aid of the accumulated part of surplus value.

If we represent the value of capital goods by Ic + Iv + Is and that of the consumer goods by IIc + IIv + IIs, we can thus reconstruct as follows the overall diagram of supply and demand on the capitalist market.

Supply	*Demand*
Consumer goods: IIc + IIv + IIs	Iv + I (*s* minus *s* accumulated in *c*): demand for consumer goods on the part of workers and capitalists in the capital goods sector.
	IIv + II (*s* minus *s* accumulated in *c*): demand for consumer goods on the part of the workers and capitalists in the consumer goods sector.
Capital goods: Ic + Iv + Is	Ic + Is accumulated in *c*: demand for capital goods on the part of the capitalists working in this sector.
	IIc + IIs accumulated in *c*: demand for capital goods by the capitalists working in the other sector.

For the system to be in equilibrium, both equations must be effective, supply and demand must balance for the two categories of commodity:

$$Ic + Iv + Is = Ic + Is \text{ acc. in } c + IIc + IIs \text{ acc. in } c.$$
$$IIc + IIv + IIs = Iv + I\ (s \text{ minus } s \text{ acc. in } c) + IIv + II\ (s - s \text{ acc. in } c).$$

By eliminating in the two equations the terms common to both sides we twice obtain *the same equation, the conditions for general equilibrium of capitalist production:*

$$Iv + I\ (s \text{ minus } s \text{ acc. in } c) = IIc + IIs \text{ acc. in } c.$$

This equation of equilibrium of the capitalist market does not represent a fiction. Iv + I (*s* minus *s* acc. in *c*), i.e. the wages paid and the part of surplus value not accumulated in constant capital in the capital goods sector, *is the total demand for consumer goods created by the production of capital goods.* IIc + IIs acc. in *c*, i.e. the constant capital to be replaced and the constant capital to be accumulated in the sector of consumer goods, is the *total demand for capital goods created by the production of consumer goods.* The equation between these two magnitudes, as the equation of equilibrium of the capitalist market, signifies simply this: *capitalist economy is in equilibrium when the production of capital goods gives rise to a demand for consumer goods equal to the demand for capital goods to which the production of consumer goods gives rise.* Or, in other words, the

capitalist market is in equilibrium when reciprocal supply and demand is equal as between the two sectors of capitalist production.

Production and reproduction

The equation of equilibrium establishes a relation between the value of the commodities produced and the purchasing power which serves as counter-value to these commodities from a *static* point of view, in the setting of a specific, well-defined period. But the reality of capitalist production is that of a process which unfolds in time, one cycle of production succeeding another. The question of the *continuity* of capitalist production presents problems of both a social and an economic character which can be called problems of reproduction.

For capitalist production to be continuous in time, it must reproduce, first and foremost, the fundamental conditions of the capitalist mode of production: the monopoly of the means of production (of capital) in the hands of one class of society; and the existence of another social class which is obliged to sell its labour-power in order to get the money it needs to acquire the means of life. It is thus necessary, first, that wages be "obviously determined and distributed so as to enable those who receive them merely to keep themselves alive, so as to be able to go on working in the service of whoever pays them and keeps them alive for his own personal and exclusive profit, but not so as to enrich them to the extent that they may gradually free themselves from their former masters, attain equality with them and enter into competition with them."[25]

St. Thomas Aquinas had already described the condition of the wage-earners as that of persons unable to accumulate any wealth: "Because they are poor they become wage-earners, and because they are wage-earners they are poor."[26]

Statistics of savings show quite plainly that the overwhelming majority of the working population of the capitalist countries consume in the course of their lives everything that they have earned, and thus cannot accumulate any capital. Their savings are only *deferred consumption*, in the literal meaning of the term: their "accumulations" relate only to consumer durables—or, at most, to houses.

Thus, in the period 1946–1950, 62·4 per cent of the British population possessed only 3 per cent [!] of British capital, or a "capital" per head of some £44.[27] In Belgium, during the same period, 27·5 per cent of the families possessed only 2·2 per cent of the privately owned *wealth* (less than 50,000 francs per family) and 48·8 per cent of the families possessed 20 per cent of it (less than 250,000 francs per family, or the value of a small working-class house). In the United States, in 1935–36, 90 [!] per cent of the households possessed only 19 per cent of the savings; in 1947–48 90 per cent of the

households still had only 22·5 per cent of the savings. It should be stressed that, in these same years, 40 to 50 per cent of households had no savings at all! [28]

It is further necessary that the sale of the commodities produced should enable the capitalists to reconstitute the capital they have expended in production, and to acquire newly-produced means of production. The analysis of the capitalist mode of production has shown us that it fulfils these two conditions.

This was not so in the societies which preceded capitalism. Herkovits relates the following about the Chuckchee tribe, who live as reindeer-herdsmen in the north-east of Siberia:

"Some Chuckchee families are so poor . . . that they own almost no herds at all, and such people enter the service of the more wealthy for extended periods. For the hard work they do, they receive supplies of meat and skins, though they must furnish their own pack-animals, when they move from one camp to another. A family working under this arrangement receive about ten fawns annually in addition to the subsistence return mentioned, if their employer is pleased with their work. In the course of five favourable years these animals and their increase give such a family a herd of some hundred reindeer, sufficient to permit them to attain independence."[29]

Similarly, the journeymen of the Middle Ages normally became master-craftsmen, or could at least nurse a legitimate hope of becoming such. Capitalist society is, on the contrary, characterised by this special feature that it constantly reproduces a proletarian class.

The continuity of capitalist production further demands a certain qualitative breakdown of the commodities produced. For it to exist, the capital used up in production must, in the course of a series of production cycles, at least be reconstituted. It is necessary therefore that it be possible at least to reproduce the machinery and raw material used up in the course of successive production processes and to produce at least sufficient consumer goods to reconstitute the labour-power needed.

We know that every society is in the last analysis based on an economy of labour-time. A certain proportion of the social labour-time totally available has to be devoted to the maintenance, repair and reproduction of the instruments of labour and to the upkeep of the fields and buildings, or otherwise, after a certain time, production can no longer be resumed on the same scale as before: society will be impoverished in the absolute sense of the word.

What in societies which produce use-values is a simple problem of allocating the social labour-time totally available is complicated in capitalist society by the fact that it is a mode of producing *commodities*. For the continuity of capitalist production to be guaranteed, it is necessary that during a series of production cycles:

1. The capital goods needed to replace those used up in the course of production, and the consumer goods needed to reconstitute labour-power, be materially produced;
2. Purchasing power capable of realising the value of these capital goods and consumer goods be created and actually spent; and
3. This purchasing power be distributed in such a way that supply and demand balance as regards both capital goods and consumer goods.

The study of the economic problems of reproduction in capitalist society is essentially the study of the questions raised by these three conditions, without which the continuity of capitalist production is broken.

Simple reproduction

Simple reproduction appears as a succession of production cycles which makes possible the *maintenance* of social wealth but not its increase. In a society which produces use values, simple reproduction means that the annual amount of products is sufficient to support a stable population and to replace the instruments of labour used up during this year. In a society which produces commodities, simple reproduction means that the value of the annual product (gross national product) suffices exactly to reproduce labour-power, the instruments of labour and the stock of raw material used up during the year, and to support the possessing classes. In a capitalist society simple reproduction means that the annual surplus value is wholly consumed unproductively by the bourgeois class and that there is no accumulation of capital.*

While the pre-capitalist modes of production passed through long periods of simple reproduction, they mostly ended by attaining at a certain moment in their evolution a stage of *expanded reproduction*, that is, a certain development of the instruments of labour, a certain accumulation of social wealth in the form of stocks of products and above all of stocks of additional tools. The mere accumulation of food reserves was already a primitive form of expanded reproduction.

As for the capitalist mode of production, it is distinguished from all previous modes of production precisely by the fact that it is not unproductive consumption but productive consumption, the capitalisation of the social surplus product, that represents the driving force of action and exploitation on the part of the possessing classes. In this case, expanded reproduction is the normal form of reproduction under

* Since she starts from the assumption that the capitalists use no part of their profits for their own unproductive consumption, Joan Robinson has described simple reproduction in its state of bliss, when "all labour is . . . employed on producing consumption goods and maintaining capital . . ."[80]

the capitalist régime, simple reproduction being possible only at exceptional moments in the capitalist production cycle.

How will the three conditions for the continuity of capitalist production present themselves in the setting of simple reproduction? Let us assume, for instance, that the total value of the annual production of all the commodities is 9,000 (millions of currency units). For continuity of production to be ensured, one part of these commodities must represent capital goods—machinery, raw materials, industrial buildings, auxiliary products, power, etc.—and the other must represent consumer goods. Let us suppose that, in value, two-thirds of production, or 6,000, represent capital goods, while the remaining third, or 3,000, represent consumer goods. Annual social production can then be defined as follows, assuming the rate of surplus value and the rate of profit to be the same in the two broad sectors of production:

$$\text{I: } 4{,}000\,c + 1{,}000\,v + 1{,}000\,s = 6{,}000 \text{ capital goods}$$
$$\text{II: } 2{,}000\,c + 500\,v + 500\,s = 3{,}000 \text{ consumer goods.}$$

In the course of production, capital goods to a total value of 6,000 have been used up (4,000 in the sector I and 2,000 in sector II). These goods can be replaced, since in the same period capital goods to the value of 6,000 have been produced. The social labour power needed requires consumer goods to the value of 1,500 in order to reconstitute itself. This can be done, because consumer goods to the value of 3,000 have been produced.

The sale of all the commodities brings the capitalists 9,000. Of this 9,000, 6,000 is needed to reconstitute constant capital (capital goods) and 1,500 to reconstitute variable capital (money capital with which labour power will be bought in the following year). The remaining 1,500 represents profit, the year's surplus-value. As, by definition, surplus value is wholly consumed unproductively in a case of simple reproduction, this 1,500 will be used to buy consumer goods. These consumer goods will actually be available, since they have been produced to the value of 3,000, and 1,500 have sufficed to reproduce the labour-power used up during the year.

Finally, supply and demand balance in the two sectors, since we have:

CAPITAL GOODS

Supply: 6,000, total production. *Demand:* { 4,000 capitalists I; 2,000 capitalists II }

CONSUMER GOODS

Supply: 3,000, total production. *Demand:* { 1,000 workers I; 500 workers II; 1,000 capitalists I; 500 capitalists II }

The purchasing power created by production has been distributed in such a way as to make possible the purchasing of all the commodities produced. These have thus vanished from the market, and we begin a new annual production cycle with a constant capital of 4,000 in sector I and 2,000 in sector II; money-capital, available as variable capital, to the value of 1,000 in sector I and 500 in sector II; a labour force of the same size as at the beginning of the previous cycle, and completely reconstituted. In other words: the new cycle starts from exactly the same level of production as the previous one. Simple reproduction has been achieved.

Expanded reproduction

Expanded reproduction takes the form of a succession of production cycles which makes possible an increase in social wealth. In a society which produces use values, expanded reproduction means that the yearly amount of products is greater than is needed for the support of the whole population and the conservation of the stock of instruments of labour. Social wealth grows in the form of an increased stock of instruments of labour, increased reserves of food, etc. Such an expanded reproduction is the indispensable condition for a more or less sustained increase in population.

In a commodity-producing society, expanded reproduction means that the value of the annual product (gross national product) is greater than the value of the labour-power, the instruments of labour, and the stock of raw material used up during the year, together with the goods needed for the upkeep of the possessing classes.

In a capitalist society, expanded reproduction means that surplus value is divided into two parts: one part consumed unproductively by the capitalists, their families and their hangers-on, and another consumed productively, i.e. accumulated and invested, capitalised in the form of machinery, raw materials, *additional* wages, which make it possible to start a new production cycle with a larger capital—capital of a greater value—than in the previous cycle.

How will the three conditions for the continuity of capitalist production appear in the setting of expanded reproduction? In the case of simple reproduction, the value of all the capital goods produced in a single cycle must be equal to the value of the constant capital used up in the course of this production cycle. In the case of expanded reproduction this will not do, for the capital goods needed to start the next cycle with an increased constant capital will be lacking. The first condition for expanded reproduction is thus the production of an *additional amount* of capital goods, over and above what have been used up in the previous production cycle (an additional amount does not mean a *larger number* but a higher *value*). The equivalent of this

additional amount of capital goods is precisely the part of surplus value destined to be accumulated as additional constant capital.

Similarly, the production of an additional amount of consumer goods, over and above those bought during the previous cycle by the workers and the capitalists, is necessary, since these consumer goods are to provide the counter-value of the additional variable capital (wages) which part of the accumulated surplus value represents, and which is destined to purchase an additional quantity of labour power.

Let us assume that the total gross product of a year has a value of 11,400 (million currency units), divided between 7,000 worth of capital goods and 4,400 worth of consumer goods. The value of the gross product may, let us imagine, be analysed like this, if we assume an equal rate of surplus value in the two sectors but a higher rate of profit in sector II, where the organic composition of capital is lower:

$$\text{1st cycle} \quad \left\{ \begin{array}{l} \text{I: } 4{,}000\,c + 1{,}500\,v + 1{,}500\,s = 7{,}000 \\ \quad \text{capital goods} \\ \text{II: } 2{,}000\,c + 1{,}200\,v + 1{,}200\,s = 4{,}400 \\ \quad \text{consumer goods} \end{array} \right\} \quad 11{,}400$$

Let us assume, again, that the capitalists in sector I allocate their surplus-value like this: 500 consumed unproductively and 1,000 accumulated, of which 700 as constant capital and 300 as variable capital. As for the capitalists in sector II, they allocate their surplus-value, let us suppose, like this: 700 consumed unproductively, 500 accumulated, of which 300 as constant capital and 200 as variable capital.

During the previous production cycle 6,000 had been used up as constant capital in the two sectors together. Total production of capital goods exceeds this 6,000—it amounts to 7,000. The 1,000 additional capital goods enable the capitalists of sector I to accumulate constant capital to the value of 70 and the capitalists in sector II to do the same to the value of 300. During the same previous cycle 3,900 consumer goods had been used up (2,700 for the workers in both sectors, 500 for the capitalists of sector I, and 700 for the capitalists of sector II). But the production of consumer goods attains a value of 4,400. These 500 extra consumer goods will enable the extra workers hired under expanded reproduction to find the counter-value of their wages, the surplus value accumulated as variable capital, namely, 300 in sector I and 200 in sector II.

Thus, both the commodities and the purchasing power needed for expanded reproduction have been supplied by the previous cycle. The continuity of production is assured because the allocation of this purchasing power makes it possible to balance supply and demand in the two sectors:

CAPITAL GOODS

Supply: 7,000, total production.

Demand:
- 4,000, capitalists I: reconstitution of c.
- 2,000, capitalists II: reconstitution of c.
- 700, capitalists I: accumulation of c.
- 300, capitalists II: accumulation of c.

CONSUMER GOODS

Supply: 4,400, total production.

Demand:
- 1,500, workers I.
- 1,200, workers II.
- 500, capitalists I.
- 700, capitalists II.
- 300, counter-value of accumulation of v by capitalists I.
- 200, counter-value of accumulation of v by capitalists II.

The new production cycle will thus begin with the following capital:

I: (4,000 + 700) c + (1,500 + 300) v.
II: (2,000 + 300) c + (1,200 + 200) v.

Still assuming a rate of surplus value stable at 100 per cent, production in this second cycle of enlarged reproduction will have the following value:

2nd cycle
- I: 4,700 c + 1,800 v + 1,800 s = 8,300 capital goods
- II: 2,300 c + 1,400 v + 1,400 s = 5,100 consumer goods

13,400

Assuming that the surplus-value of capitalists I is allocated like this: 600 consumed unproductively and 1,200 accumulated, of which 800 as c and 400 as v; that the surplus value of capitalists II is allocated like this: 700 consumed unproductively and 700 accumulated, of which 500 as c and 20 as v, we can, as indicated above, deduce a third cycle of expanded reproduction, production in which will have the following value:

3rd cycle
- I: 5,500 c + 2,200 v + 2,200 s = 9,900
- II: 2,800 c + 1,600 v + 1,600 s = 6,000 consumer goods

15,900

and so forth . . .

It will be seen that expanded reproduction is expressed in the increase, between one cycle and the next, in the total value of the commodities in each sector, as also in the increase of surplus-value in each sector. Under simple reproduction these values remain stable from one cycle to another.

Expanded reproduction and the laws of development of capitalism

In the diagrams of expanded reproduction set out above, each sector realised the whole of the surplus-value produced by the workers in that sector. This is in contradiction to the actual development of the capitalist mode of production, in which an equalisation of the rate of profit occurs whereby the sectors with a higher organic composition of capital—sector I—annex a share of the surplus value produced by the workers of the other sectors. The diagram can easily be corrected, however, by calculating the average rate of profit on the whole of capital, then transforming the value of commodities I and II into their prices of production.* In this way the following succession of cycles of expanded reproduction would be obtained:

1st cycle

I: 4,000 c + 1,500 v + 1,705 profit = 7,205 capital goods
II: 2,000 c + 1,200 v + 995 profit = 4,195 consumer goods } 11,400

2nd cycle

I: 4,905 c + 1,800 v +2,060 profit = 8,765 capital goods
II: 2,300 c + 1,400 v + 1,140 profit = 4,840 consumer goods } 13,605

3rd cycle

I: 6,005 c + 2,160 v + 2,450 profit = 10,615 capital goods
II: 2,760 c + 1,600 v + 1,310 profit = 5,670 consumer goods } 16,285

etc.

At the same time we also observe in these diagrams the tendency of the rate of profit to fall, with 31 per cent in the first cycle, 30·75 per cent in the second and 30 per cent in the third.†

* In the first cycle, 1,500 s + 1,200 s give a total surplus value of 2,700, or 31 per cent of profit on a total capital of 8,700. The price of production of I and II is calculated by adding 31 per cent of profit to the respective capitals. In the second cycle, 1,800 s + 1,400 s give a total surplus value of 3,200, or 30·75 per cent profit on a total capital of 10,405. In the third cycle, 2,160 s + 1,600 s give a total surplus value of 3,760 on a total capital of 12,525, or 30 per cent profit. We assume an unproductive consumption of profit of 500 in I and 495 in II during the first cycle, and of 600 in I and 480 in II during the second.

† Some writers[31] declare that calculation carried out in this way must inevitably lead to mistakes and contradictions because the value of c and v in each cycle is not itself transformed into price of production. This view is unfounded. The price of production of c results from the equalisation of the rate of profit *during the previous cycle*. It is a constant because, independently of the gains or losses of a capitalist in competition with others, he has paid (or owes) a *previously determined price* for the machines, raw material, etc., he has bought. As for the transformation of values into prices of production, as applied to the diagrams of simple reproduction, this is indeed incorrect, but not for the reason alleged by the writers mentioned above. This transformation results from *capitalist competition*, which is just what is missing in the

Nevertheless, one must be careful not to ascribe to these formulae a significance they do not possess. By arbitrarily choosing one's starting figures, or the initial relations between the different terms in the formula, one may succeed in "discovering" laws of capitalist reproduction, including its "inevitable collapse" (as the Marxist economist Henryk Grossman has done), after a certain number of cycles. This is a perfectly useless and sterile game.

In reality, reproduction formulae merely indicate the conditions of continuity of *capitalist production as a whole*, leaving aside all the *concrete conditions* under which the capitalist mode of production progresses: birth in a non-capitalist setting; transfers of capital from one sector to another; role played by credit; fluctuation of money prices, etc. In so far as capitalist production is production for the market, a production of commodities and not a conscious allocation of society's resources between different branches of production, it is these *concrete conditions* in which the capitalist mode of production operates that determine both the laws of development of capital—without the whip of competition, for instance, the increase in the organic composition of capital and the tendency of the rate of profit to fall which is implicit in it would be inexplicable—and the cyclical form taken by economic life under capitalism.

The reproduction formulae which leave out all these concrete conditions therefore cannot and should not be expected to "reveal" these laws of development, or the causes of this cyclical movement. They can at most indicate how, *despite* the operation of thousands of individual capitalists fiercely competing one with another and thereby determining the actual progress of the capitalist mode of production, the continuity of production is maintained *in the long run*, notwithstanding frequent periodical interruptions. The usefulness of these formulae is appreciated when one asks this question: how can it happen that the continuity of production is maintained, when the value and the proportions of this production seem to result from individual decisions by thousands of businessmen who hide their intentions from each other? The reproduction formulae show the conditions that must be fulfilled if this continuity is to be safeguarded.

In the real life of capitalism, these conditions of continuity are achieved *through the breaks in continuity. Capitalist economy is seen as a unity of continuity and discontinuity in its economic activities.* "Progress . . . not only proceeds by jerks and rushes but also by one-sided rushes productive of consequences other than those which

diagram of simple reproduction and in an economy based on petty commodity production such as this formula reflects. It is to be observed, incidentally, that these writers confuse price of production and market prices expressed in money terms, since they bring the conditions of the gold-producing industry into their argument.

would ensue in the case of co-ordinated rushes . . . The history of capitalism is studded with violent bursts and catastrophes . . . Evolution is a disturbance of existing structures and more like a series of explosions than a gentle, though incessant transformation."[32]

In this sense, the formulae represent, so to speak, *averages* over a *decade* or over a cycle, reciprocal proportions between the different elements in capitalist production. They imply precisely the *elimination* from the abstract formula of all the factors which determine the cyclical progress of production. They cannot therefore explain concretely either capitalist expansion or the reason why crises break out.

Expanded reproduction, economic growth and social accounting

The analysis of the different conditions of expanded reproduction is at the same time the analysis of the factors which ultimately determine the economic growth of the capitalist mode of production.

In any society, the two conditions which are necessary and sufficient for economic growth are:

(1) that *per capita* production be greater than the necessary product, that is, that the society produce more than it consumes (including in consumption the wearing out of its instruments of labour);

(2) that this net surplus assume, at least in part, the form of extra instruments of labour, that is, that it be consumed productively. A borderline case is that in which this net surplus is used to support a larger number of *producers*, and in which it makes possible, thanks to better feeding of these producers, an immediate increase in their output. In this case, however, one merely puts off for a stage the need to see a net product of additional instruments of labour appear as a necessary condition for economic growth.

In capitalist society, these two conditions appear precisely as the conditions for expanded reproduction:

1. There is a surplus value which is not wholly consumed by the capitalists.

2. Its unconsumed residue is partly invested in fresh constant capital.

Generally speaking, three proportions are thus fundamental in determining the rate of growth of a capitalist society:

(*a*) The absolute amount of profit (s) and its ratio to the gross national product;

(*b*) The absolute amount of profit not consumed unproductively (s minus s cons.) and its ratio to the gross national product (and the total quantity of surplus value);

(*c*) The absolute amount of these accumulated profits which is invested in capital goods (s minus s cons. minus s acc. in v minus s hoarded) and its ratio to the gross national product and to the total quantity of surplus value.

Because these three proportions are intertwined, it is not possible to isolate a single one of them in order to determine the source of the relative slowness (or the speed) of economic growth.

Thus, a country may have a very low rate of productive investment not because the amount (or the rate) of profit or of surplus value is low, but because a very high proportion of this surplus value is consumed unproductively or accumulated in ways other than productive investment (for instance, speculation in land, hoarding of precious metals, export of capital for non-productive purposes, etc.). This is particularly the case in a number of under-developed countries.*

It would similarly be quite wrong to assume that a considerable rise in real wages, bringing about a fall in the rate of profit, must automatically slow down economic growth. This hypothesis is correct only if, during the previous phase, nearly all the surplus value was invested productively. Given any other conditions, such a rise in wages may, on the contrary, stimulate economic growth, by compelling the possessing classes to reduce their unproductive consumption and their accumulation outside productive spheres, so as to neutralise the monetary fall in the rate of surplus value by an increase in relative surplus value (an increase in the productivity of labour).

Calculations of the national accounts which are based on the hybrid, and purely descriptive, criteria of the theory of income cannot enable us to distinguish the *potential sources of accumulation of productive capital*, or in other words the total amount of surplus value or of social surplus product. They do not distinguish between the productive consumption of workers' households, the unproductive consumption of the possessing classes, the easily reducible consumption of luxuries, and pure waste. In the same way the building of houses for the people, which corresponds to a pressing need, is included in the same entry with the building of luxurious banking and office premises which are often ways of evading taxation and not "productive investments" in any sense. In the category of public investments, productive investments are mixed up with the purchase of military equipment, a typical form of unproductive expenditure!

It is thus urgent to modify the way of calculating the national accounts, in accordance with the social structure, so that abstract (or purely monetary) concepts of saving may be replaced by the concept of total surplus value and of the available potential accumulation fund.†

In the foregoing we have assumed that the existing enterprises and labour force were already fully employed. This assumption does not correspond to a permanent reality. Consequently, economic growth

* See Chapter 13.

† In Chapter 16 we endeavour to show that the *maximum* rate of accumulation *never gives* the highest rate of growth, is never the *optimum* rate.

may result not only from an additional creation of means of production, but from a better (more rational, uninterrupted, etc.) use of those which already exist. It is not so much the increase in productive investment as the better use of the existing productive forces (human and mechanical) that matters in this case. Nevertheless, though such a possibility is very important in the short run (especially in crises!) it constitutes only an intermediate phase in longer term views. As soon as full employment of the existing means of production has been attained, economic growth is again identified with their expansion.

Contracted reproduction

Contracted reproduction occurs as a succession of production cycles which no longer allow social wealth to maintain itself but instead cause it to shrink. In a society producing use-values, contracted reproduction means that the annual amount produced is not sufficient to support the whole population or to maintain the existing stock of tools of labour, or both. In a commodity-producing society, contracted reproduction means that the value of the gross annual product is less than the total amount received in payment by the working classes, the value of the instruments of labour and raw materials used up in the course of production, and the value of the commodities serving to support the ruling classes. In capitalist society contracted reproduction means that for various reasons the capitalists are unable to renew the constant capital used up and that the wages paid out do not enable the producers completely to reconstitute their labour-power.

In pre-capitalist societies, contracted reproduction might result from two different combinations of circumstances. First, a *sudden decline in production*, owing to natural or social calamities, drought, floods, earthquakes, invasions, epidemics, wars, civil wars, etc.

Let us suppose that the total needs of an agricultural community amount to 1,000 tons of wheat a year, of which 750 are for consumption and 250 for seed and for use in exchange for other articles of prime necessity. If during several consecutive years the harvest declines to 500 tons and no external help is received, there will be contracted reproduction all along the line. The amount of seed will be inadequate; some of the land will remain uncultivated; part of the population will perish; the number of producers (the labour force) will shrink. Even when a good harvest does come, a smaller number of producers working on a smaller sown area will produce less wheat than before.

Contracted reproduction could also result from a *change in the distribution of available social resources*. For production to ensure the continuity of economic life at a certain level, it must in fact produce use values which are such as to *reconstitute the material elements of production*: labour power and instruments of labour. However, it

is possible to use these elements *for purposes which are sterile as far as reproduction is concerned,* i.e. for producing goods which do not make possible renewal either of the labour force or of the instruments of labour used up during the given period of production. In this case there will inevitably be contracted reproduction, since part of the productive resources used will not have been reconstituted and work will therefore be continuing with smaller resources.

Thus, during the reign of the Mongol emperors in China, says the historian Eberhard, a large number of poor peasants subject to labour service were concentrated for the purpose of building luxurious imperial establishments.[33] These peasants were obliged to abandon their fields while they were carrying out this work; these fields therefore remained uncultivated. A series of cycles of contracted reproduction was thus started, the distribution of the labour-power totally available to society having been carried out in such a way that production in the basic sector, that of agriculture, had to be contracted.

In the capitalist mode of production we encounter both of these forms of contracted reproduction. First, that which is caused by a sudden fall in production, by an economic crisis. Contrary to what happened in pre-capitalist society, it is not the decline in the *amount* produced but in its *value* that brings about the break in continuity, the economic crisis. But the cumulative effect of the shrinking of economic life remains no less characteristic in the case of capitalist economic crises. A fall in the value of production leads to the closing of factories and dismissing of workers. This then causes a sudden fall in the total purchasing power, which further accentuates the piling up of unsold goods, the fall in prices and the closing of businesses. From one month to the next—and during prolonged crises, from one year to the next—less and less is produced, with less capital and fewer workers; the basis of production shrinks.

Similarly, capitalism can experience contracted reproduction due to a change in the distribution of available productive resources. If part of constant capital and labour power is used to produce commodities the use value of which does not make possible either the reconstitution of this constant capital or the reconstitution of this labour-power, at the end of a certain time contracted reproduction will prevail, that is, production carried on with a reduced amount of constant capital and labour-power.

War economy

War economy is the typical example of contracted reproduction under capitalism. War economy implies that part of the productive resources of constant capital and labour-power are devoted to the making of *means of destruction,* the use-value of which does not make possible either the reconstruction of machinery, or of stocks of raw

material, or of the labour force, but tends, on the contrary, to bring about the destruction of these resources. For this reason, war economy can reach a point at which either the maintenance (depreciation from the financial standpoint, replacement from the physical) of the constant capital is no longer guaranteed,* or the labour force is not completely reconstituted, because consumption by the workers falls to too low a level, and the productivity of labour declines, to which may be further added the effect of an absolute reduction in the number of workers.

Thus, the British national income during the last war assumed this form, compared with peacetime (in millions of £):

	1938	*1943*
	(figures in 1938 pounds)	
Government expenditure	837	3,840
Private consumption	4,138	3,270
Private investment at home	305	−95
Foreign investment	−55	−485[35]
National income:	5,225	6,530

It will be seen that a war economy can be accompanied by an *increase* in real national income and the value of the gross national product, as it is at present calculated: ". . . an increase in any one type of product must be accompanied either by a decrease in other kinds of product or an increase in total production. If the goods and services that government uses in time of war are counted as a final product, as is the custom in current computations, the record might be expected to show some increase in total output, but also a decrease in non-war products, during the war period."[36]

The production of tanks, aircraft and shells, sold by the capitalists engaged in the sector of means of destruction, is a production of commodities the value of which is realised on the market. But as these commodities do not enter into the process of *reproduction*, this increase in national income is accompanied by an absolute reduction in the amount of existing constant capital and a very big reduction in the productivity of labour.

The British example during the last war was, moreover, a relatively benign one. In Japan, the textile industry had, in the same world war,

* This point of *contracted reproduction* was actually reached in the United States during the Second World War. The production of new fixed capital (durable equipment) declined from 7·3 billion dollars in 1929 and 6·9 billion in 1940 to 5·1 billion in 1942, 3·1 million in 1943 and 4 billion in 1944, while the annual wearing-out of existing fixed capital was estimated at 8 billion dollars during the same period. The net formation of new capital declined to less than 1 per cent of the national income in 1943. During the same period, war expenditure absorbed in 1942 32 per cent, in 1943 43 per cent and in 1944 43 per cent of the gross national product of the United States.[34]

to transform into scrap-iron two-thirds of all the cotton spindles.[37] The fixed capital of sector II became circulating capital for sector I. In Germany and elsewhere the average productivity of labour fell to a point at which it was again possible to use forced labour on a large scale.

This contracted reproduction can be presented diagramatically by introducing a third sector into a reproduction formula, that of destruction goods:

1st cycle

I: 4,000 c + 1,500 v + 1,500 s = 7,000 capital goods II: 2,000 c + 1,200 v + 1,200 s = 4,400 consumer goods	11,400

2nd cycle

I: 4,000 c + 1,500 v + 1,500 s = 7,000 capital goods II: 2,000 c + 1,200 v + 1,200 s = 4,400 consumer goods III: 1,000 c + 500 v + 500 s = 2,000 destruction goods	13,400

3rd cycle

I: 3,900 c + 1,200 v + 1,100 s = 6,200 capital goods II: 1,800 c + 900 v + 800 s = 3,500 consumer goods III: 1,300 c + 600 v + 500 s = 2,400 destruction goods	12,100

This diagram is based on the assumption that, after the first cycle, the capitalists of categories I and II invest all their surplus value in the arms industry. As a result, production in these two sectors does not increase in the second cycle. It would, of course, be possible to introduce several intermediate cycles during which a decreasing fraction of the accumulated surplus value would continue to be invested in sectors I and II.

The 7,000 capital goods produced during the second cycle are to be divided in the third cycle between categories I, II and III, which means a reduction in the capital goods available for sectors I and II, where the phenomenon of contracted reproduction starts to appear. Part of the surplus value of capitalists I and II can no longer be invested in these sectors, for lack of any counter-value on the market; it is transformed into means of financing the third sector, or else is hoarded (forced loan, company reserves, etc.). The value of the consumer goods available to the workers similarly contracts, which causes a fall in output and a shrinkage in the rate of surplus value.*

* During the Second World War the U.S.A. reached approximately this second cycle of contracted reproduction, at least so far as stagnation of the sector of capital goods was concerned. Towards the end of the war, Great Britain, Germany and, still more, Japan, experienced the third cycle, with reduction of production in I and II. Professor Jacquemyns was able to analyse the state of health of some 500 Belgian miners and metal-workers in May—June 1941, after a year of rationing which had reduced by 25 per cent the normal consumption of bread, by 60 per cent that of fats, meat and potatoes,

The contracted reproduction of consumer goods and of certain capital goods, under the influence of the production of destruction goods, in the setting of a war economy, is revealed very clearly in the following table: [39]

Value of the production of the different branches of industry in percentage of the value of Germany's total industrial production

	1936	*1939*	*1944*
Raw material industries;	34·4	31·4	33·3
of which, coal and other mines	7·5	7·4	6·3
Industries producing capital goods;	39·5	34·9	41·4
of which, metal-work, incl. production of destruction goods	15·3	21·8	25·5
Consumer goods industries;	30·5	27·6	19·0
of which, textiles	7·5	5·0	3·7
of which, foodstuffs	11·4	11·9	7·0

Redistribution of the national income by the State

The rise of the labour movement and the increasing popular antipathy to the inequality of income characteristic of modern capitalism have led to defensive reactions on the part of the possessing classes. Since income tax was introduced in Great Britain, and above all since the New Deal experiences in the U.S.A., many economists have stressed the fact that, through its budget, the State—especially in the Western countries of bourgeois democracy—redistributes a large proportion of the national income at the expense of the possessing classes and for the benefit of the working classes.

Progressive income tax and death duties, they say, reduce the inequality of incomes and wealth. The services which the State places freely at the disposal of all its citizens—compulsory education, upkeep of roads, public health, with free medicine in Great Britain, etc.—are above all advantageous to the poorest classes of the population, and tend to equalise citizens' incomes still further. The evolution of present-day capitalism is said to be not towards a concentration but, on the contrary, a dispersion, an ever-greater levelling of incomes.

So far as wealth and property are concerned, especially the ownership of industry and property in capitalists' savings, these allegations are a crude untruth: all the facts we have point to an increasing concentration of this ownership.* But as regards income it is usually accepted that the action of the public authorities has served effectively to reduce the inequality of income. Is this really so, and, if it is, what

and by 75 per cent that of eggs and fish. The result was a loss of weight of at least 4 kilogrammes—and in some cases as much as 15 kilogrammes—below the normal in the case of 64 per cent of the workers, leading to decline in arterial tension, permanent fatigue and a rapid falling-off in output.[38]

* See Chapter 7, section dealing with the "scattering" of shares, and Chapter 12.

place must be given to this phenomenon in the recent evolution of the capitalist mode of production?

The State's income, as we have already said, normally comes from two different sources—direct taxes on income, and indirect taxes, increasing the selling prices of goods (the issue of paper money by the State having the same effect as indirect taxation). If progressive income taxation hits the well-to-do classes harder than the poorer ones, this is not at all true of indirect taxes.

"In general, taxation of consumption will fall more heavily upon the lower income brackets than upon the higher, and accordingly it will to a certain extent make up for the income-levelling effects of the taxation of income."[40]

In fact we observe that in France the wage-earners paid in 1949 450·5 milliard francs in indirect taxes, as against 271·5 milliard paid by businessmen and professional men. In Great Britain the total taxation of all kinds paid by the poorest class of taxpayers (those earning less than £500 a year) increased from £499 million in 1937 to £1,791 million in 1949, because indirect taxes increased five-fold in this period. In Denmark, indirect taxes reduced the income of the poorer classes of taxpayers by 11·2 per cent, whereas their incidence on the incomes of the middle classes is only 9·1 per cent.[41]

It is true that in the U.S.A. indirect taxes are responsible for only a small part of public revenue. But in that country it is necessary to take into account the effect of direct taxation on wages and salaries, a factor which is indeed playing an even greater role in other capitalist countries. Actually, in France the wage-earners pay more in direct taxes than the businessmen and professional men! In Belgium the wage-earners, who receive barely 50 per cent of the national income, paid, in 1959, 57·5 per cent of the income tax.[42]*

If we draw up the overall balance-sheet of the taxes paid by the working people and the benefits they receive from social security, etc., we usually reach the conclusion that the redistribution of income in their favour is slight or even non-existent. Thus, for France, Rottier and Albert remark:

"Limiting ourselves . . . to the group of non-agricultural wage and salary earners, we have not been able to obtain precise results on the vertical redistribution of income within this group. However, it is probably not very large . . . [The] relative increase in the share of the social wage has not been accompanied by a growth in the total share of wages and salaries in the national income. There has thus been a marked decrease in the share of this income which a wage or salary earner can spend as he likes."[43]

* In West Germany indirect taxation brought in 27·5 billion DM in 1960, as against 3·8 billion RM in 1928–29 for the entire Weimar Republic. In the same period, wages and salaries increased by 150 per cent only.

And for Great Britain F. Weaver reaches similar conclusions: "A primary feature of the increase in post-war redistribution in the United Kingdom is that it occurs mainly within different income classes on the basis of consumption habits rather than between classes . . . Most of the post-war increase in personal taxes has been levied indirectly on consumption and has fallen on those who smoke and drink or consume non-utility clothing and household goods. The incidence of regressive taxes is mainly on the working class who are also the chief recipients of the benefits of redistributive governmental expenditures. Generally, the low income group pays for its benefits . . ."[44]

It may be objected that this purely monetary calculation does not take into account such free material benefits as the general improvement on the level of health and education, the lengthening of life which has resulted, a certain change in the structure of consumption, an increase in what workers spend on culture and leisure in the industrially advanced countries, etc. This is a pertinent argument.

But, as the Danish economists Lemberg, Ussing and Leuthen observe, the "services" rendered to the workers by the State in this way are to be explained less by a desire to redistribute income than by a desire to "qualify the recipients as fully as possible for productive work."[45] In the same way, the lengthening of the average expectation of life also means the lengthening of the workers' productive life; instead of producing surplus value for 25 years for the capitalists, the worker now produces for 40 or 45 years. In so far as the price of labour power includes a relative element,* namely the average needs determined by the average level of civilisation in a country at a certain epoch, the State, by guaranteeing to the wage-earners certain services which they do not have to purchase with their money wage, *merely guarantees, on behalf of the bourgeoisie as a whole, the payment of an integral part of wages*. The State does not transform surplus value into wages; it merely plays the role of central cashier for the bourgeoisie, *paying part of wages in a collective form, so as to socialise certain needs*.

There are situations in which the redistribution of the national income benefits the working class on a larger scale. But this is not, paradoxically, the case with "social capitalism"; rather does it apply in the case of society's great penances.

When a capitalist country is hit by the cataclysm of a serious economic crisis, or a lost war, the redistribution of the national income does indeed take place in favour of the poorest strata—the unemployed, in the first instance, the victims of war in the second. These sections of the population must be included in the proletariat; they constitute precisely that "Lazarus stratum" of which Karl Marx speaks.

* See Chapter 5.

In Western Germany, where there are millions of cripples and badly wounded war-victims, together with victims of fascist and racial repressions, war veterans and people who are sick as a result of war-time privations, this "Lazarus stratum" receives nearly 10 per cent of the national income, by way of redistribution through the State. It will be agreed, however, that the workers cannot derive much satisfaction from the conclusion that they do not "profit" from the redistribution of national income except in so far as they become unemployed or war-cripples.

It is obvious that what we have here is a measure with political and social aims, a lubrication of the social mechanism intended to avoid an explosion, and not an *economic* evolution which in some way or other contradicts the relative impoverishment of the proletariat.

A study by Simon Kuznets[46] which appeared in 1953 tried to work out in figures the effects of the redistribution of national income in the U.S.A. He came to the conclusion that the net share taken by the rich (after paying direct taxes)—and by the rich he meant the richest one per cent of the taxpayers—of the national income had been reduced to a striking extent, from 14·3 per cent, on the average, in 1919–38 to 7·9 per cent in 1948.

This study suffers, however, from grave methodological weaknesses. In the first place, it is based exclusively on the taxpayers' own declarations, which in the case of self-employed people, and especially of the rich, are notoriously underestimates aimed at dodging taxation.*

It takes account of direct taxation but not of the rise in the cost of living, which is particularly unfavourable to the lower income groups. It employs arbitrary categories ("the one per cent richest taxpayers", "the seven per cent richest taxpayers," etc.) and not *concrete social* categories.

If we re-examine the official statistics, without even taking into account undeclared income, we observe nevertheless that the share of the lower income group has not increased at all, as may be seen from these figures:

	Percentage of households	*Percentage of personal family income received*
In 1910	50	26·8
In 1918	50	26·6
In 1929	50	22·0
In 1937	50	21·2
In 1944	51·9	24·9
In 1956	51·7	25·2

* Dr. Selma Goldsmith, of the National Bureau of Economic Research, estimates that in the U.S.A. 24 per cent of dividends, 29 per cent of businessmen's income and 63 per cent of interest payments were not declared in 1946.[47]

It is hard to interpret these figures in the sense of an historical improvement on the part of the lower income groups, especially if we note that 51·7 per cent of families quoted for 1956 earned less than 5,000 dollars a year; that the 51·9 per cent of families quoted for 1944 earned less than 3,000 dollars a year; and that between 1944 and 1956 the purchasing power of the dollar fell by 40 per cent, so that the 5,000 dollars of 1956 were exactly equivalent to the 3,000 dollars of 1944.[48]

According to Kuznets, in 1929 the 7 per cent of the taxpayers with the highest incomes received 30·3 per cent of personal income; in 1956 the 10 per cent highest-paid taxpayers received 31 per cent of personal income. The "redistribution" consisted merely of a certain *enlargement of the upper middle classes*, a phenomenon characteristic of every period of boom (and "exaggerated" in these figures owing to tax-dodging). This impression is further reinforced when one observes that the 3·8 per cent of all families who receive more than 15,000 dollars a year received in 1956 altogether 17·3 per cent of family income, whereas in 1929 the same percentage was received by some 2 per cent of the families.* The share of the "rich" has not changed at all; they have merely become somewhat more numerous.†

But if we know that 40 per cent of the taxpayers together receive less than this 3·8 per cent of the population (their share was reduced from 20 per cent in 1916 to some 13 per cent in 1950!) it is impossible to find in these figures any pointer to a reversal of the classical tendencies to concentration of capital and income in the capitalist mode of production.[51]

* The German official statistics show that in 1928 88·84 per cent of the taxpayers received 61·1 per cent of the private incomes; in 1950, 86·05 per cent of West German taxpayers received 59·7 per cent of the private incomes. At the other end of the pyramid, in 1928 0·45 per cent of the taxpayers received 11·1 per cent of private incomes; in 1950 1·24 per cent of the taxpayers received 10 per cent of private incomes. In 1928 the share of the 4·3 per cent most prosperous was 24·7 per cent; in 1950 the share of the 4·4 per cent most prosperous was 23 per cent.[49]

† "Despite the laments about high taxes, the number of American families with a net worth of a half-million dollars has doubled since 1945. Most of the very rich manage, one way or another, to hold on to the bulk of their new incomes each year. Meanwhile, corporate lawyers have applied their ingenuity to find non-taxable benefits for key executives. These range from deferred payments in the form of high incomes for declining years and free medical check-ups at mountain spas, to hidden hunting lodges, corporate yachts, payment of country-club dues (according to one survey, three-quarters of all companies sampled did this), and lush expense accounts."[50]

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CHAPTER ELEVEN

PERIODICAL CRISES

Pre-capitalist and capitalist crises

AN economic crisis is an interruption in the normal reproduction process. The human and material basis of reproduction, the mass of productive labour power and of instruments of labour effectively employed is reduced. There follows a decline in both human consumption and productive consumption, that is, a reduction in the amount of labour both living and dead available for production during the next cycle. In this way a crisis reproduces itself spirally, the break in the normal production process causing a shrinkage in the starting-basis of this process.

In pre-capitalist societies crises took the form of *material destruction* of the elements of reproduction, whether simple or expanded, as a result of natural or social catastrophes: "Before and even during the eighteenth century, crops, wars, plagues, and so on were absolutely and relatively very much more important [than business fluctuations]."[1]

Wars, plagues and other epidemics, floods, draught, earthquakes, all destroy society's productive forces, the producers and the means of production. Depopulation and faminine condition one another and bring about an overall reduction in both current production and social reserves. As agriculture is the basis of all expanded reproduction, it is above all a reduction in agricultural production, in the output of agricultural labour, that lies at the root of pre-capitalist crisis. This reduction is usually caused by non-economic factors.[2] Causes inherent in the mode of production—increasing exhaustion of the soil, without any possibility of extending cultivation to fresh land, and flight of the producers from increasing exploitation—may, however in certain circumstances take the place of non-economic disasters as causes of crisis.

Crises occur in a different way in capitalist society. In this society the material destruction of the elements of production occurs not as the cause but as the result of crisis. It is not because there are fewer workers engaged in production that a crisis happens, it is because a crisis breaks out that there are fewer workers engaged in production. It is not because hunger reigns in people's homes that the output of labour declines and crisis breaks out, but the other way round.

Pre-capitalist crisis is a crisis of *under-production of use-values*. It is due to inadequate development of production, or to inadequacy of exchange and of transport facilities. A crisis like this, in a particular province or country, may coincide with normal conditions of reproduction in a neighbouring province or country. A capitalist crisis, however, is a crisis of *overproduction of exchange-values*. It is due to inadequacy not of production or physical capacity to consume, but of *monetarily effective demand*. A relative abundance of commodities finds no equivalent on the market, cannot realise its exchange value, remains unsaleable, and drags its owners down to ruin.

Unlike a pre-capitalist crisis, a crisis in the capitalist epoch thus presupposes the universalisation of commodity production. Whereas pre-capitalist crisis is by definition local and limited in space, capitalist crisis is by definition general, and involves most of the countries united in the capitalist system of production and exchange of commodities: *

"Whereas the crises of the Ancien Régime were phenomena of shortage suddenly experienced, and for thousands of years the very idea of crisis was linked with under-production and famine . . . crises since the Revolution are always, except during wars, phenomena of overabundance of an explosive nature, which also lead to deep-going social changes."[3]

General possibility of capitalist crisis

This new type of crisis, called a crisis of over-production, seems to result from the very characteristics of the commodity, and of the general development of commodity production. The intrinsic contradiction of the commodity, the contradiction between use-value and exchange-value, leads in fact to the *splitting of the commodity into the commodity itself and money*. This splitting is what creates the general possibility of capitalist crises.

So long as society essentially produces use-values, a situation of "poverty amid plenty", of masses of use-values being destroyed while masses of people are condemned to poverty, cannot occur. The direct appropriation of use-values by the consumers prevents any such paradoxical coincidence. As soon, however, as commodity production becomes general, this direct appropriation ceases to be possible. Henceforth, in order to consume a commodity, it is necessary to possess the equivalent of its exchange-value. To appropriate use-values one has to be able to *buy* them.

From this time forward crises of overproduction are theoretically possible. For them to occur, all that is needed is for the owners of

* This does not mean, of course, that all the crises of the capitalist epoch necessarily have to affect *all* countries. The universality of capitalist crisis is a matter of a predominant feature, not an absolute and mechanical rule.

commodities to find themselves unable, for whatever reason, to encounter customers who possess sufficient money-capital to realise the exchange-value of their commodities. The system of trade and credit tends to bridge over temporarily the separation between the commodity and its equivalent in money. The longer this bridge becomes, however, both in time and space, the more closely trade and credit bind all countries together in a single system, the more the contradiction inherent in the commodity and its divided condition is intensified.

If during the circulation of commodities *their price of production changes*, as a result, say, of the introduction of new methods of work, the intensifying of competition, or of a fall in the average rate of profit, a large number of commodities no longer find their equivalent on the market, and a large number of debts cannot be met. It is enough for an income not to be spent today but only tomorrow for it to be incapable of buying the same number of commodities, if their prices have risen in the meantime.[4] The contradiction between the commodity and the money equivalent which it has to find on the market thus develops into a contradiction between money as medium of circulation and money as medium of payment, a contradiction which in turn leads to the contradiction between the whole process of commodity circulation and the process of reproduction.

The law of markets

Vulgar political economy set up against this analysis of the theoretical possibilities of overproduction the idea that the value of commodities is by definition equal to the total incomes of the various classes of society which in one way or another take part in the production of these commodities. Deduced from this was the conclusion that all production of commodities is at the same time production of the incomes needed to absorb these commodities. Hence arose the well-known "law of markets" which is unjustly called "Say's law", since it was discovered not by the French economist J. B. Say but by the British economist James Mill, father of John Stuart Mill. This "law of markets" leaves no room for general overproduction; at most it allows of the existence of partial overproduction, overproduction in some sectors accompanied by underproduction in others, due to faulty distribution of the "factors of production" among the different sectors of the economy.

The mistake in the law of markets arises from the fact that it neglects the *time-factor*, that is, it assumes a static and immobile system instead of the dynamic capitalist system.* We know already that during the period between production and sale the prices of commodities can vary, in either direction, so creating either a surplus of

* This is admitted by Guitton.[5]

incomes or a surplus of commodities without counter-value in money on the market.*

On the other hand, the incomes distributed during a certain period of time will not necessarily be used to buy commodities during this same period; only the incomes of wage-earners, intended for the purchase of perishable consumer goods, will be so spent. This is not true of capitalist incomes, which *tend to be accumulated*, nor of that part of the value of commodities which represents not an income but the counter-value of used-up constant capital. The capitalists are under no obligation to invest these sums *immediately*, that is, to use them at once as purchasing power to acquire a certain category of goods. When the capitalists expect not a rise but rather a fall in their profits they may well put off such expenditure. The hoarding of incomes, non-productive saving, may thus give rise to a surplus of income which will correspond to an overproduction of certain commodities.[7] This brings about an initial reduction in employment which may entail overproduction spreading throughout all parts of the economy, which will cause a further decline in employment, and so forth.

In fact, the "law of markets" is valid only:
(*a*) if all problems of investment are eliminated,
(*b*) together with all problems of credit; and
(*c*) if the immediate sale, for cash, of all the commodities produced assumed, together with
(*d*) complete stability in the value of these goods and
(*e*) no difference of productivity between different enterprises.

These assumptions boil down to an assumption that production is not capitalist production, stimulated by thirst for profit and by competition, but petty commodity production.

Even in that case, monetary phenomena can upset the perfect equilibrium between incomes and commodity values. The law of markets is thus truly valid only for natural economy.[8] In this way we come again to the argument set forth at the beginning of this chapter, that a society which produces use-values cannot experience "overproduction".

The cyclical progress of capitalist economy

Increase in the organic composition of capital and a downward tendency of the average rate of profit, conditioned by this, are the general laws of development of the capitalist mode of production. By bringing about a periodical modification in the price of production of commodities they create the theoretical possibility of general crises of

* Marx notes that there is no automatic, immediate unity between production and realisation of value under capitalism. This unity results only from a process and is connected with a series of conditions.[6]

overproduction, if an interval between the production and sale of commodities is assumed. The capitalist mode of production thus acquires its characteristic rhythm of development—*uneven, unsteady*, proceeding by leaps which are followed by periods of stagnation and retreat.

The introduction of new machines and new production methods does not change the price of production in an imperceptible, gradual way. It changes it through sudden jerks, at more or less regular intervals, when society becomes aware *after the event* that too much social labour has been expended in producing certain commodities. This results, leaving all other factors out of account, from the rotation cycle of fixed capital, which embraces a whole succession of production cycles and rotation cycles of circulating capital. Keynes says:

"There are reasons, given firstly by the length of life of durable assets in relation to the normal growth in a given epoch, and secondly by the carrying-costs of surplus stocks, why the duration of the downward movement should have an order of magnitude which is not fortuitous, which does not fluctuate between, say, one year this time and ten years next time, but which shows some regularity of habit between, let us say, three and five years."[9]

A number of other writers express the same view, e.g., Aftalion, Pigou, Schumpeter, etc.[10] The "interval" factor operates in agricultural affairs too. There is a gap between the moment when, on the basis of favourable prices, a decision is taken to increase the cultivation of a certain product, or the raising of certain animal stock, and the moment when this decision actually results in an increase in production.[11]*

On the other hand, a certain period has to elapse before the market can react to the introduction of new production methods, that is, before it can be established whether these methods will continue to bring super-profits to their initiators or if they will lead, on the contrary, to an all-round lowering of prices of production. This period is precisely that during which the splitting of the commodity into the commodity itself and money is *stretched* to the utmost, which leads to the inevitable slump.

Capitalist production is production for profit. The variations in the average rate of profit are the decisive criteria of the actual condition of capitalist economy.†

* This leads to a phenomenon of inevitable cyclical fluctuations known as the "cobweb theorem".

† A large number of writers accept this view as self-evident, e.g. Aftalion, W. C. Mitchell, Keynes, Schumpeter, Hansen and Guitton.[12] Haberler, however, in his work on economic cycles, which is otherwise so clear, is guilty of the following enormity in order to remain faithful to the terminology of the marginalist school: "Variations in profits (or losses) are often regarded as the barometer of economic cycles. It does not, however, seem justified to put

The long-term tendency of the average rate of profit is a downward one. But this does not show itself in straight-line fashion. It becomes effective only through periodical adjustments and increases, in a *cyclical* movement the primary origin of which has just been shown. This cyclical movement can be briefly characterised in its main phases by the change in the average rate of profit:

(*a*) *Economic recovery.* Part of production capacity not having been used any more for a certain period, the stocks previously accumulated have been got rid of, and the demand for goods now exceeds the new supply. Prices and profits start to rise again. Some of the factories which have been closed now reopen, for the same reason, which encourages the capitalists to increase their investments—because when demand exceeds supply it means that *less* social labour is crystallised in the commodities present on the market than is socially necessary. This implies that the total value of these goods easily finds it equivalent on the market. The factories working at a level of productivity higher than the average will realise a substantial super-profit: the less productive enterprises still surviving after the crisis will realise the average profit. The circulation period of commodities is reduced, most enterprises undertaking production to order. The gap between the moment of purchase and the moment of payment for goods is very short.*

(*b*) *Boom and prosperity.* All available capital flows into production and trade, in order to take advantage of the increase in the average rate of profit.† Investments rapidly increase. During a whole period the establishment of new enterprises and the modernisation of existing

this factor on the same footing with the three fundamental criteria above-mentioned. The term 'profit' is vague and ambiguous [!] . . . It is a combination of interest, rent, monopoly profits, etc. Profits in the doctrinal sense are part of the national income and are included under that head in 'real income'. The absence of profit (or loss) in the strict sense of the word is the very essence of the perfect equilibrium [!] of the economic system."[13] We are ready to lay odds that any business-man would explain to Mr. von Haberler that his "doctrine" is in conflict with reality . . . It is to be observed, furthermore, that Gayer, Rostow and Schwartz[14] have confirmed empirically that the cyclical movement of the textile industry coincides in the first part of the nineteenth century with cyclical fluctuations in the rate of profit.

* We leave aside for the moment many factors which enter into the cyclical movement and which we shall deal with later. It is above all necessary to grasp the *fundamental* mechanism of the rate of profit, which underlies the cyclical movement.

† It is thus not wrong to speak, as do Aftalion and Pigou, about "mistakes by too optimistic entrepreneurs". But it must be grasped that these are "mistakes" (of over-investment) from the *social* standpoint; because, from the point of view of the *private* entrepreneur, it is logical to try to increase production and sales to the maximum *at the moment when profit is highest.* Each one hopes he will survive the ensuing slump, that this will affect only the other man. And in fact, are not the most modern new plants those that stand up best to crises? "The trouble seems to be not so much that business men mistake their interests . . . as that their actual interests lie in doing the things

enterprises is the essential source of the general expansion of economic activity: "industry is industry's best customer". The newly-launched enterprises raise the average level of productivity well above the former average, but so long as supply is exceeded by demand prices continue to rise and the average rate of profit remains at a high level. The most modern enterprises realise substantial super-profits, which stimulates fresh investments and develops credit, speculation, etc.

(*c*) *Overproduction and slump.* As the newly-made investments increase more and more the total production of society, and thereby the quantity of commodities hurled on to the market, the relations between supply and demand change, at first imperceptibly, then more and more obviously. It is now seen that some of the commodities produced in the least favourabe conditions of productivity actually contain labour-time which is *wasted*, from the social standpoint. These goods have become unsaleable at their prices of production. For a certain period the factories where these unfavourable conditions exist nevertheless go on producing—*that is, wasting social labour-time*—thanks to the expansion of the credit system, and this is reflected in the accumulation of stocks, the lengthening of the circulation time of commodities, the widening of the gap between supply and demand, etc. At a certain moment it becomes impossible to bridge this gap with credit. Prices and profits collapse. Many capitalists are ruined; the enterprises which work at too low a level of productivity[17] have to close down.

(*d*) *Crisis and depression.* The fall in prices means that production is henceforth profitable only for the enterprises that work under the most favourable conditions of productivity. The firms that were realising super-profits now have to be satisfied with the average profit. In fact, a new level of average profit is thus established, corresponding to the new organic composition of capital. At the same time, however, the crisis, through the bankruptcy and closure of many factories, means the destruction of a mass of machinery, of fixed capital. By the fall in prices, capital, as exchange value, is also lowered in value, and the total value of society's capital is reduced. The smaller amount of capital which is left as a result of this destruction can more easily be utilised. It will be invested easily under conditions making possible, at the moment of economic recovery, a new rise in the average rate of profit.

which bring on the cycle, so long as they are acting as individual business men or representatives of individual business interests."[15]

Natalia Moszkowska does not understand the periodical coincidences of these "errors of judgment". Why does everybody make the same sort of mistake?[16] Perhaps because every entrepreneur is forced by competition to try for the highest profits? Is this not a vivid illustration of the contradiction between the *social* character of production and the *private* character of appropriation (the hunt for private profit) under capitalism?

The cyclical movement of capital is thus nothing but the mechanism through which the tendency of the average rate of profit to fall is realised. At the same time, it is the system's reaction to this fall, through the lowering of the value of capital during crises. Crises make possible the periodical adaptation of the amount of labour actually expended in the production of commodities to the amount of labour which is *socially necessary*, the individual value of commodities to their socially-determined value, the surplus-value contained in these commodities to the average rate of profit. Because capitalist production is not consciously planned and organised production, these adjustments take place not *a priori* but *a posteriori*. For this reason they necessitate violent shocks, the destruction of thousands of lives and enormous quantities of values and created wealth.

The internal logic of the capitalist cycle

The contradiction between use-value and exchange value, the contradiction between the commodity and its money equivalent, provide only the *general possibility* of capitalist crises of overproduction. They do not yet explain why, or in what specific conditions, these crises periodically follow one another. The variations in the rate of profit reveal the inner mechanism of the economic cycle. They explain the general significance of it as a periodical readjustment of the conditions of equilibrium of capitalist reproduction. But they do not reveal the "concrete causes" of crises. These factors can be distinguished from the causes of crises in the strict sense by contrasting, in the tradition of Aristotle's logic, and as the economist G. von Haberler does, the causes *sine qua non*—without which there would not be any crises—with the causes *per quam*—which explain the immediate reasons why crises break out. To analyse the latter requires a concrete analysis of all the elements of capitalist production.

For expanded reproduction to take place without interruption, the *conditions of equilibrium*, indicated in Chapter 10, must be constantly reproduced. The purchases of consumer-goods by all the workers and the capitalists engaged in producing capital goods must be equivalent to the purchases of capital goods by the capitalists engaged in producing consumer goods (including in both categories the purchases needed in order to expand production). The constant reproduction of these conditions of equilibrium thus requires a *proportional development* of the two sectors of production. The periodical occurrence of crises is to be explained only by a periodical break in this proportionality or, in other words, by an *uneven development* of these two sectors.

Up to now, however, we have not left the province of definition, that is, of tautology. To say that periodical crises occur because of disproportion between the two sectors of production is like saying

that opium puts you to sleep because it has sleep-inducing properties. The crisis is the *expression* of the disproportion. But if we are to regard it as being *inherent* in the process of capitalist development, we have to show why this process gives rise *periodically and necessarily* to such a disproportion.

Capitalist production is production for profit. The periodical disproportion between the development of the capital goods sector and that of the consumer goods sector must be linked with periodical differences between the rates of profit in the two spheres. The causes of these periodical differences are to be observed in the different ways in which the basic contradictions of capitalism show themselves in the two sectors. We get the following picture, for the successive phases of the economic cycle:

(*a*) *The depression.* Stocks having accumulated during a whole period, their disposal takes time, since the incomes available for buying consumer goods have been severely reduced as a result of unemployment. All investment activity slows down considerably after the outbreak of crisis.[18] As, at the same time, many enterprises have had to use for other purposes the funds available to them for renewing fixed capital, the activity of the enterprises in the capital goods sector is much reduced.[19] The production of consumer goods likewise declines to a considerable extent, but not so much.[20] Even the unemployed do not stop eating, and the purchase of perishable goods cannot be put off till tomorrow; moreover, though the workers' wages have grown less, this reduction has often been less than the fall in prices since the onset of the crisis.[21] As for purchases of semi-durable consumer goods, they decrease less than purchases of durable consumer goods. The latter, the sale of which seriously declines, nevertheless sell more easily than capital goods.[22] During the period of depression we thus see the beginning, in the sphere of production, of the disproportion between the two sectors which, from the start of economic recovery, will spread to the sphere of prices and profits.

(*b*) *The turn to economic recovery.* While the economic depression lasts, industrial activity remains at an abnormally low level. When the rate of profit is very low, no reduction in the rate of interest can cause a revival of investment.[23] But the very logic of this stagnation creates the elements of a recovery. As stocks are disposed of, thanks to the lowering of production, the consumer-goods sectors whose sales have not been much reduced are able slightly to increase their activity; prices of these goods stop falling, though without at once rising. It is enough, however, for them to remain stable for a certain period, for the enterprises in these sectors to start thinking about re-equipment.[24]

Everything encourages this. The prices of raw materials and means of equipment are unusually low; re-equipment at this moment is therefore a profitable undertaking. Wages continue to remain low, under

the pressure of unemployment, even after prices have been stabilised. These low wages likewise encourage expansion of production, since they give a promise of higher profits.[25]

The stoppage or reduction in investment activity during an entire period has made it possible to accumulate the funds needed for depreciating fixed capital. These funds, at first hoarded, start to make their way back to the banks, there to bring in interest which is still moderate but not, in a period of depression, negligible.[26]* The absence of any investment activity markedly reduces the demand for money capital, so that the average rate of interest falls in a period of depression: [29] another reason for the capitalists in the consumer goods sector to undertake investments on credit towards the end of this period. Finally, the still low rate of profit encourages them to seek out and to introduce new methods of production which have accumulated since the end of the boom without any possibility of being applied. (See Keynes and Hansen, as well as Aftalion, Pigou, Schumpeter, and a large number of others writers.)[30]

The resulting reduction in costs of production makes it possible to increase the rate of profit with the existing market prices. In this way, investment activity starts again in the consumer goods sector, which brings about economic recovery.†

(*c*) *Economic recovery.* The orders for equipment for the consumer goods sector which arise from the inner logic of the depression itself in their turn make possible the recovery of production in several sectors making capital goods. This recovery reduces unemployment, increases available purchasing power, and develops sales of consumer goods, which in its turn stimulates a new wave of investment. The *multiplier principle* comes into play.[32]

This explains that an initial investment increases the total final in-

* Woytinsky[27] notes that the total amount deposited in savings banks increased by 1932, as compared with the level at 31st December, 1929, to: 129 in the U.K., 137 in Germany, 140 in Holland, 140 in the U.S.A., 142 in Italy, 143 in Japan, 148 in Switzerland, 166 in Sweden, 193 in France, 192 in Belgium, etc. To these sums, and to those in bank deposits, must be added the considerable sums which were *hoarded*.[28]

† Supporters of the theory of pure underconsumption, like Natalia Moszkowska and Léon Sartre,[31] regard this way of describing the progress of economic recovery as question-begging. In assuming that the majority of enterprises renew their fixed capital at the same time, instead of supposing that this renewal is spread equally over each year, they say, we are already *presupposing* the existence of the cycle, that is, we are starting from what we have subsequently to prove. To this objection we answer: (*a*) it is enough to start from a *first cycle*—determined, e.g. by the initial introduction on a large scale of steam-driven machinery into the English textile industry—to see that this objection is historically invalid; and (*b*) we do not see in this renewal of fixed capital the "cause" of the cycle but only a convenient point of departure for our exposition.

come by a sum which exceeds the value of this investment; it explains likewise that one independent investment can give rise to one or more waves of investment stimulated in this way.[33] Statisticians have tried to work out the value of the multiplier in the industrially advanced countries for 1919–1939 and have evaluated it at between 2 and 3 (calculations by Kalecki and Kuznets).[34] These statistics are, however, to be handled cautiously. In any case, they do not apply to an entire historical epoch.[35]

Let us now see what happens with the rate of profit. The production of capital goods is much less elastic than that of consumer goods. To supply cotton mills with the spindles they require it is necessary to delve into the stock of steel and coal, increase the production of these raw materials when the stocks have been exhausted, put to full use the machines that build machines, or else build these first of all, when there are no more reserves of productive capacity. As soon as recovery is well under way an interval thus appears between the order for additional constant capital and its delivery. During this interval *competition* rages between the enterprises, all striving to acquire the equipment and raw materials already on the market. The prices of these goods will thus rise more than the prices of consumer goods, and this difference produces an equivalent difference between the rate of profit in the two sectors.[36] The disproportion between the two sectors is thus shifted from the sphere of production to that of prices and profit.

Moreover, the rate of profit recovers all round. Whereas prices start to rise as soon as excess stocks are dispersed, wages do not rise at all, or rise very little, at the beginning of recovery, owing to the pressure exercised by unemployment on the labour market. At the same time, the factories which were not working at full pressure during the depression start to re-engage workers without at first changing their plant. The organic composition of their capital thus declines momentarily, thereby raising the rate of profit. The reduction in the circulation time of commodities increases the number of production cycles in a year and works in the same direction.

The expansion of production being slow at first, the demand for capital remains at a level lower than the supply, which implies that the rate of interest remains very low. The coincidence of a low rate of interest with a rising rate of profit determines a growing rate of entrepreneur's profit, which likewise explains a general tendency on the part of entrepreneurs to renew their fixed capital and invest an increasing proportion of their profits at this moment of the cycle: *

* Keynes and other writers speak of the rise in the "value of capital in relation to its cost". This means that the income anticipated from the purchase of capital goods exceeds the cost of purchasing (or replacing) these capital goods. The more this difference exceeds the interest, the more favourable are conditions for investment.[37] The whole of this reasoning leads to the same conclusions that we have just been setting forth.

"Investment in new plant could not, of its nature, be undertaken in small increments. Assuming a constant rate of increase in output, an individual firm could not alter its fixed plant at a parallel constant rate, and if our data are at all reliable it would appear that [in the first half of the nineteenth century in Britain] increases in capacity capable of dealing with the secularly increasing volume of output tended to occur largely in a few years of each decade."[38]

(*d*) *Boom, prosperity.* The disequilibrium between prices and rates of profit in the two sectors, which appears from the start of economic recovery, is now transformed into disproportion between the rate of increase of their production, a disproportion opposite to that which occurred during the depression. At first, the available capital will flow for preference towards the capital goods sector, the rate of profit in this sector being the higher. Furthermore, the *accelerator principle* starts to operate.[39] We know that a very limited proportion of fixed capital is used up and renewed during each production cycle. This proportion is determined by the relative longevity of fixed capital.

Let us suppose that its average age is ten years. That means that the value of the total production of a one-year cycle contains only 10 per cent of the value of all the fixed capital available to society. If we assume that the value of the annual product is 1,500 (million), of which 500 represents the value of fixed capital used up, a stock of fixed capital to the value of 5,000 is implied. If all the fixed capital in existence is already fully employed in ensuring an annual production of 1,500, an increase of this production from 1,500 to 1,800 (or an increase in overall demand in the same proportion) requires the installation of fresh fixed capital to the value not of 100 but of 1,000, 10 per cent of which, or 100, will be embodied in the value of the extra production of 300. The increasing of production by 20 per cent thus requires that the current production of fixed capital be *tripled*. The manufacture of new industrial plant, the capital goods sector, then experiences a burst of frenzied activity. Production in this sector increases more markedly than in the consumer goods sector.[40]

This feverish development of the capital goods sector again sets going the multiplier principle and makes it possible to absorb the bulk of the unemployed labour. It again increases the purchasing power available for consumer goods, and even causes a temporary shortage of these goods, which once more stimulates investment and the purchase of fixed capital in this sector. Full employment comes about. Wages start to rise, though not so fast as prices, and for this reason the rate of surplus value continues to rise, and in fact real wages decline or stagnate at the beginning of the boom.[41]

Given that in both sectors supply is less than demand, the firms with the highest level of productivity realise lush superprofits. In general, the high level of the rate of profit favours vigorous activity in the

fields of investment, speculation and credit. The capital hoarded during the depression is progressively absorbed into economic activity, and consequently the rate of interest starts to recover. But the banks give circulation credit all the more readily because many firms are working on orders, that is, with guaranteed outlets. The discount rate thus remains comparatively low.

The more enterprises producing capital goods finish re-equipping themselves and begin to fulfil the orders that have piled up, the more equipment (and consequently production) increases in the consumer goods sector. At a certain profit it becomes sufficient to meet the increased demand caused by full employment. At this moment, one might suppose that these enterprises would start progressively reducing their orders for capital goods. But the orders for these goods placed earlier have only just been fulfilled. The *delay* between the moment when an order is placed and the moment when it is fulfilled thus plays an important role in the preparation of the crisis (see Aftalion, Tinbergen, Frisch on the cycle of shipbuilding, Kalecki, Hansen, etc.).

The cycle thus reaches here its first critical point. The industries producing consumer goods ought now to halt all expansion of production, and even begin to reduce it. Such a "rational" attitude on their part is impossible, however, and not only because of the anarchy of production, which means that each enterprise waits for its competitor to give ground, and hopes that it will itself attain a maximum of profit with a maximum of sales and production. This rationality is also ruled out by the dictation of production for profit. These enterprises have just re-equipped themselves. A restriction of production would increase depreciation charges on current production. It would reduce the rate of profit. Wages have been rising since full employment has been attained. There is therefore a risk that the rate of surplus-value and the rate of profit will fall, a risk that the capitalists try to offset by rationalisation, more intensive use of the productive apparatus, and intensification of effort on the part of the producers, all of which implies an increase in production.[42] The gradual recovery of the rate of interest likewise reduces the rate of entrepreneur's profit. The increase in the amount of profit needed to offset the lowering of this rate again implies increased production.[43]

Finally, it must not be forgotten that it is very difficult for the capitalists of the consumer goods sector to know at what moment exactly the point of equilibrium between the supply of their products and the demand for them has been reached.

"When this point comes, few men are aware of the fact, because the volume of commodities offered for sale does not indicate either the large volume in the making or the invisible supply in the hands of speculators . . . On account of the time it takes to produce com-

modities and get them into the shops, the markets do not feel the full effects of maximum productivity until months after that stage has been reached. Production, therefore, continues at a high rate; and the volume of commodities coming upon the market, as a result of loans previously made, continues to increase . . . As there is a limit, however, to the expansion of bank credit, the time comes when there is a decrease in the amount of money advanced by banks to producers, that reaches consumers' hands."[44]

When the total amount of purchasing power available for consumer goods has already ceased to increase, a considerable part of current production still goes on being sold: the shopkeepers and the firms in the intermediate stages of production have to replenish their stocks, exhausted at the end of the depression and throughout the recovery and the boom.* The increase in their sales encourages industrialists to undertake a fresh increase in production, which may thus coincide with a stagnation or even a slight shrinkage of ultimate consumption, at any rate during an initial period.

(*e*) *The slump, the turn towards depression.* The disequilibrium between the capital goods sector and the consumer goods sector, which first shows itself in the sphere of prices and the rate of profit, thus spreads more and more into the sphere of production and then into that of demand, sales and markets. Full employment having been attained, the total amount of purchasing power for consumer goods does not increase any further, or at best, very little.† On the other hand, the production of these same goods continues to increase throughout an entire period, for the reasons indicated above. "There is a suggestion here that the accumulated financial difficulties are accompanied (perhaps in part produced) by a slower growth of distribution [or, more correctly, sales. E.M.] to consumers, at the same time that

* Often, at the start of a boom, and before the accelerator principle has begun to operate thoroughly, enterprises and shops begin to replenish their stocks, and when this movement remains unaccompanied by a corresponding increase in sales to the public, they may be led to dispose quickly of these stocks and in the meantime restrict their own purchases. This explains the occurrence of minor recessions in the middle of the economic cycle, first elucidated by the economist Kitchin,[45] and also known as *inventory* recessions (Metzler and Abramovitz).[46]

† This is to be understood in real and not monetary terms. Currency inflation may of course increase nominal wages at the end of a boom, but this rise is largely skimmed off by the rise in the cost of living. It is true that at this moment any fresh increase in production leads to an increase in real wages (overtime, etc.) which reduces the rate of profit. At the same time, at the top of the boom, the rate of surplus value tends to decline, average output per wage-earner tending to fall, particularly as a result of the employment of inexperienced workers and also of the following phenomena: "It cannot be denied that, in many establishments, the output of labour has declined since full employment has been exceeded, owing to the fluidity of the labour-force, absenteeism, and lack of conscientiousness."[47]

physical output is growing faster."[48] Stocks thus begin to grow, first at the final stage (retail trade), then at the intermediate stages, finally in the industrial enterprises themselves.

As this increase in stocks develops, the industrialists and traders to whom it is happening resist any immediate lowering of prices which would mean for them a reduction in the value of their stock, that is, a serious loss. They therefore increasingly apply to the banks, to get circulation credit. The banks themselves, which have already extended substantial credit to the enterprises in this sector, put off as long as possible any refusal of credit, which would risk bringing about the bankruptcy of these enterprises and so the loss of the capital already lent. A regular credit inflation thus occurs, a dangerous tension of the whole system, linked with many phenomena of speculation and pure and simple swindling, which flourish in the boom atmosphere. This tension on the money market and the finance market comes just before the reversal of the conjuncture, and is marked by a sharp rise in the rate of interest.[49]

The entrepreneurs are now obliged to put off, further and further, the carrying-out of their current investment projects. They have to use as circulating capital a part of the money capital intended for these investments. Their orders for capital goods thus fall off more and more, while production stagnates or starts to decline in the consumer goods sector. Thus, the production of consumer goods reaches its climax, stagnates, or even starts to fall off, before the same phenomenon occurs in the capital goods sector.[50]

We have now reached the second critical point in the cycle. The enterprises in the capital goods sector re-equipped themselves at the beginning of the cycle, so as to be able to meet orders for *increased* fixed capital coming from the consumer goods sector. It is enough for this increase to come to a halt for phenomena of over-production to start appearing in the capital goods sector, for the industries of this sector to begin working below their new maximum production capacity. Furthermore, a *slowing-down in the rate of increase* in investments leads to the same result:

"The rhythm of production in the industries producing equipment is governed by the *expansion* of production in the industries making consumer goods. If the latter stop expanding, the former lose part of their markets and are forced to cut down their activity, even supposing they can obtain the funds they need in order to keep their production up to the former level."[51]

The enterprises in this sector, too, have recently made substantial investments; they thus have substantial amounts of capital to depreciate. They work much more with borrowed capital than do the enterprises in the other sector, since it is into them that available money capital has mainly flowed, attracted by a higher rate of profit.

The rise in the rate of interest resulting from the increasing shortage which becomes apparent on the capital market* will thus hit them harder than the enterprises in the consumer goods sector. This will be felt all the more severely because about the same time the rate of profit will likewise tend to decline, owing to the rise in overheads, the rise in wages (overtime, etc.), the increase in wastage, etc.[52]

In view of the emptying of their order-books, these enterprises find themselves compelled, in turn, to restrict production, dismiss some of their employees, and adopt other economy measures. But all this means that the volume of purchasing power distributed by this sector tends to decline. There results from this, so far as consumer goods are concerned, a real decline in demand, a fresh increase in stocks, a further shrinkage in production, a new fall in profits.

At a certain point in this cumulative process of shrinkage, disequilibrium necessarily extends to the last phase, that of credit. Demand for circulation credit is accumulating on every side. The supply of money capital, however, declines, because the difference between the rate of profit and the rate of interest disappears. In the face of the increase in stocks and the stagnation in sales, the enterprises are, moreover, continually short of ready money, they draw out their bank deposits, and they sell off their property and securities, etc.[53]

Finally, all the reserves accumulated during the previous period of stagnation have been absorbed in the feverish activity of the boom. It is thus inevitable that during such a process the disequilibrium between supply of and demand for money capital should to a certain extent cause a stoppage in the expansion of the credit system. The banks start to refuse new requests for circulation credit, except at more and more exorbitant rates. Rates of interest and discount rates both increase rapidly.† Bankruptcies occur in increasing numbers, debtors dragging down creditors. Soon an avalanche sets in. Hundreds of enterprises shut their doors and dismiss their workers. In order to find the ready money which has suddenly become the only thing capable of keeping the worst disasters at bay, enterprises are forced to sell off their stocks at any price. Prices collapse, profits vanish, a new wave of bankruptcy spreads. Prices, profits, production, incomes, employment, fall to an abnormally low level.‡

* This shortage need not necessarily result from an actual shortage of capital. Often, the owners of this capital refuse to lend it at this moment, because the fall in the rate of profit implies a growing risk of instability on the part of the borrowers.

† It must not be forgotten that the rise in the rate of interest in relation to credits for production has only a minor effect nowadays in the advanced capitalist countries, where self-financing by enterprises plays a dominant role.[54] This is not true, however. of circulation credit.

‡ Kaldor[55] gives four reasons for the cessation of the boom: an increasing rate of interest, which halts investment; a fall in the rate of profit caused by

The extension of the basis of capitalist production

Our analysis of the cyclical progress of capitalist economy is based on the typical behaviour of capitalist enterprises, who at any moment of the cycle are seeking the maximum profit, under the whip of competition, without troubling themselves about the system or the market as a whole. But how does it happen that the periodical occurrence of crises does not induce enterprises to be more prudent, that is, to restrict their investments when recovery comes, so as to avoid overproduction at the end of the boom? How, in other words, does it come about that booms are every time as feverish and exaggerated as before, leading every time to an especially disagreeable collapse?

This question is all the more justified because the sectors especially subject to fluctuations in demand during the cycle do learn to adapt themselves to these fluctuations:

"Producers becoming familiar with the recurrent shift of demand in the course of the cyclical phases, learn to provide . . . for the peak demand of prosperity. Industries more subject than others to such fluctuations, . . . which we shall call cyclical industries, are particularly likely to do this. They will set up productive capacity which is intended to be fully used only in times of prosperity."[56]

It is not as though such foresight on the part of the capitalists could *prevent* the cyclical development of the economy. We have seen that the mere fact of the periodical renewal of fixed capital, determined by its expectation of life, is enough to account for this cyclical pattern. But the question that arises is this: why do we not simply see the renewal of fixed capital at the start of each recovery phase, accompanied by investment which broadly corresponds to the increase in population during the cycle? Why do we see, instead, a substantial expansion in production capacity proceeding by leaps, which, through the working of the accelerator principle, causes booms in the strict sense of the word?

Historically, there is only one reply to this question. The cyclical development of capitalist economy becomes particularly feverish through the *extension of the basis* of this economy at the beginning of each recovery, and this happens through the sudden appearance of *new markets* for important sectors of industry, which thus stimulates the activity of the capital goods industry.

These new markets may result either from the geographical extension of capitalist production[57] (penetration into a non-capitalist milieu),

this rise in the rate of interest; the inadequacy of the expansion of demand for consumer goods; the appearance of excess capacity, owing to the shortage of labour. We have commented on the operation of three of these four factors, even if not in the same order as Kaldor's. The fourth is quite exceptional. The influence of full employment is felt above all on the rate of profit.

from the appearance of new sectors of production (technological progress) or from sudden leaps in relations between competitors (disappearance of a powerful competitor as a result of war, of technological backwardness, etc.). To this must be added, in the twentieth century, the role of replacement markets played essentially by the armaments orders of the State*

Each successive boom in the history of capitalism can be explained in this way by such an extension of the basis of production:

(*a*) 1816–25 cycle. British industry conquers the markets of Latin America; building of gas-works and canals in Britain; beginning of Belgium's industrialisation.

(*b*) 1825–36 cycle. Rise in British exports to Latin America and U.S.A.; industrial expansion in Belgium, France, and the Rhineland; beginning of railway construction.

(*c*) 1836–47 cycle. Rise in British exports to Asia, especially to India and China (after the Opium War). Railway construction at a feverish pace throughout Western Europe.

(*d*) 1847–57 cycle. Expansion of the American market after the discovery of gold deposits in California. Railway building in the U.S.A. and throughout Europe. Establishment of new industries in the U.S.A., in Germany and in France. First expansion of joint stock companies.

(*e*) 1857–66 cycle. Expansion of the market in India and Egypt, especially through the development of cotton plantations, to replace the American cotton missing because of the American Civil War.

(*f*) 1866–73 cycle. Development of the iron and steel industry in Germany, Austria-Hungary, the U.S.A., especially stimulated by the wars of 1866 and 1870–71. Great railway building boom in the U.S.A.

(*g*) 1873–82 cycle. Feverish railway building in the U.S.A. and in Central Europe. Increase in naval construction. Expansion of markets in South America, Canada and Australia, due to their mechanised agricultural production.

(*h*) 1882–91 cycle. Last big expansion in railway building in the U.S.A., in Russia and in Latin America (especially in Argentina). Export of British and French capital. Development of the African market.

(*i*) 1891–1900 cycle. Building of tramways throughout the world; building of railways in Russia, Africa, Asia and Latin America; export of British, French and German capital. Development of the oil and electrical power industries.

(*j*) 1900–07 cycle. Expansion of the iron and steel industries (arms

* See Chapter 14.

race), of naval construction, of tramways, of electric power stations and telephone networks. Development of the Turkish, North African and Middle-Eastern markets. First development of heavy industry in Italy. Last wave of railway building in Africa and Asia.*

(*k*) 1907–13 cycle. Rise in iron and steel production, armaments and naval construction. End of the tramway-building boom. Development of the Middle-East market.

(*l*) 1913–21 cycle. In the U.S.A. and Japan, feverish industrial construction, boom in iron and steel, naval construction, armaments industries, boom in the chemical industry in these countries, as also in Germany and Britain; first expansion of the motor-car industry.

(*m*) 1921–29 cycle. World-wide expansion of the motor-car, rubber, oil, machine-tool, electrical-apparatus and chemical industries. Boom in American exports of capital, especially to Germany.

(*n*) 1929–37 cycle. Rise in the armaments industry, especially in Germany and Japan. Development of the Chinese and Latin-American markets. First expansion of the aircraft industry.

(*o*) 1937–49 cycle. Expansion of the armaments industry in the U.S.A., Canada, Australia, Germany (until 1944) and Britain. New division of world markets, especially in Western and Eastern Europe, Africa, Latin America and the Far East. Expansion of the aircraft, electronics and chemical industries. Beginnings of the atomic power industry. Industrialisation of the underdeveloped countries.

(*p*) 1949–53 cycle. Expansion of the armaments and aircraft industries. Development of the Atomic power industry. Renewed expansion of Germany heavy industry, focused on reconstruction needs. Development of the African market. Continued industrialisation of the underdeveloped countries.

(*q*) 1953–58 cycle. Expansion of the electronics, chemical (plastics) and engineering (industrial equipment of all kinds) industries. Capital construction for the armaments race and the industrialisation of the underdeveloped countries. Boom in building development, expansion of consumer-durable sectors in Europe; first large-scale development of automation.

* In Europe, apart from Russia, railway building reached its climax in the decade 1870–80, when there was an average annual increase in railway lines of 5,000 kilometres. In the U.S.A. this climax was reached in the decade 1880–90, with an average annual increase of 11,800 kilometres. From the decade 1890–1900 onward the annual construction in the rest of the world exceeded the total of railway construction in Europe and the U.S.A., reaching its climax between 1900 and 1908, with an annual average of 12,031 kilometres.[58]

Under-consumption theories

In the history of economic thought, two great schools of explanation of the capitalist economic cycle are to be distinguished: the underconsumption school and the disproportionality school. Each puts its finger on a fundamental contradiction of the capitalist mode of production, but goes astray in isolating this contradiction from the other features of the system.

In order to explain the periodical crises, the supporters of underconsumption theories start from the contradiction between the tendency to unlimited development of production and the tendency to limitation in consumption by the broad masses, a contradiction which is indeed characteristic of the capitalist mode of production. The periodical crises thus *appear as crises of the realisation of surplus-value*. The inadequacy of the purchasing power of the masses prevents them from buying all the goods manufactured during a particular period. The surplus value has been produced all right, but it remains crystallised in unsaleable commodities.

Among the representatives of this school may be listed pre-Marxist socialists such as Owen, Sismondi and Rodbertus, the Russian Populists, and a series of Marx's own disciples: Kautsky, Rosa Luxemburg, Lucien Laurat, Fritz Sternberg, Otto Bauer (in his last work), Natalia Moszkowska, Paul M. Sweezy, etc. Among non-Marxist representatives of this school may be mentioned Major Douglas, Professor Lederer, Foster and Catchings, Hobson, and Keynes, along with some of the latter's followers, such as Professor Hamberg.

The crudest defenders of this idea find the origin of crises in the fact that the workers receive as wages the equivalent of only *part* of the new value they produce. They forget that the other part of this value corresponds to the purchasing power of the bourgeois class (capitalist families and firms). Even a writer with such claims to scholarship as Fred Oelssner writes in his work *Die Wirtschaftskrisen*: [59]

"It follows from this contradiction between the worker's role as producer of surplus value and his role as consumer or buyer on the market that the development of the market can never [!] correspond to the extension of production. Demand always [!] develops more slowly than supply under capitalist conditions [of production]."

An idea like this does not explain why crises have to occur—it would rather serve to explain the *permanence* of overproduction, the impossibility of capitalism.

The workers are not at all expected to buy all the commodities produced. On the contrary, the capitalist mode of production implies that a part of these commodities, namely, capital goods, is *never* bought by the workers, but always by the capitalists. In order to uphold the theory of underconsumption one would have to show that under the capitalist mode of production the ratio between wages and the part of

surplus value not transformed into constant capital, on the one hand, and the national income, on the other, is *necessarily and periodically less* than the ratio between the value of consumer goods and the value of production as a whole. This has never been shown in a convincing way.

Rosa Luxemburg,[60] though she starts from similar considerations, raises the discussion to a level more worthy of interest by inquiring into the origins of accumulation, of expanded reproduction. Expanded reproduction means, in fact, that the capitalists withdraw from commodity circulation, at the end of a rotation cycle of capital, more value than they have introduced into production. This surplus is nothing else but realised surplus value!

Now, Rosa Luxemburg goes on, both the workers' wages (variable capital) and the replacement value of the machinery and raw material used up in production (constant capital) were *advanced* by the capitalists. As for the capitalists' unproductive consumption (the unaccumulated part of surplus value) this is also paid for by the capitalists themselves. If, then, the whole of production were bought by the workers and the capitalists, that would simply mean that the capitalists recovered funds they had themselves put into circulation, and bought their own surpluses from each other.

This would make sense if one were to look on each capitalist enterprise as an isolated unit. But for the capitalist order taken as a whole the conclusion seems absurd. This capitalist order presents a picture of increase in wealth, in the value accumulated by the capitalist class, an increase which cannot be the result of exchange between capitalists. Rosa Luxemburg concludes, therefore, that the realisation of surplus value is possible only to the extent that non-capitalist markets are open to the capitalist mode of production. She sees these markets above all in the purchasing power of the non-capitalist classes (peasants) within the capitalist countries and in the external trade of the latter with non-capitalist countries.*

It is certain that, historically, the capitalist régime was born and developed within a non-capitalist setting. It is no less certain that the extension of its basis received a particularly dynamic stimulus from the

* Bukharin replied to this argument that in trade with non-capitalist classes or countries there is also exchange of commodities, and therefore no new outlets. He did not grasp that this trade can take the form not of an exchange of commodities but of an exchange of *non-capitalist incomes* (e.g. semi-feudal ground rent) arising from non-capitalist modes of production, against capitalist commodities. There are therefore, indeed, new outlets and transfers of value in favour of the bourgeoisie. Sternberg adds that if one starts from the hypothesis that only a residue of consumer goods is unsaleable in a "pure" capitalist society, these consumer goods could be exchanged against capital goods (raw materials) imported from non-capitalist countries, so favouring both the realisation of surplus value and the accumulation of capital.[61]

conquest of fresh space. But from that it does *not* follow that if a non-capitalist setting is absent then surplus value cannot be realised.

Rosa Luxemburg's mistake lies in treating the world capitalist class as a whole, i.e. in *leaving out competition.* It is true that Marx, in his calculations of the average rate of profit in Volume III of *Capital,* also starts from the capitalist class as a whole, and Rosa quotes this reference triumphantly, to confirm her view.[62] But she seems to be unaware that in his overall plan for *Capital* Marx stressed that *crises fall outside the sphere of "capital taken as a whole"; they result precisely from the phenomena which he calls those of "different capitals", i.e. competition.* It is competition that determines the whole dynamic, all the laws of development, of capitalism.

Now, competition implies exchange of commodities with other capitalists. This shift of value within the capitalist class may very well be at the basis of the "realisation of surplus value". Within the setting of these exchanges between capitalists, the "totality" of the capitalist class may see its total profits increase, realised *successively* by the circulation of one and the same sum of money.*

It is the unevenness of the rate of development[63] *as between different countries, different sectors and different enterprises that is the driving force of the expansion of capitalist markets,* without non-capitalist classes necessarily having to be brought in. This is what explains how expanded reproduction can go on even without any non-capitalist setting, how under these conditions the realisation of surplus value takes place through a market accentuation of the *concentration of capital.* In practice, exchanges with non-capitalist surroundings are only one aspect of the uneven development of capitalism.

Critique of models of "underconsumption"

Several writers have tried to give a more subtle form, supported by figures, to the theory of "underconsumption", that is, of the impossibility of realising surplus value as the ultimate cause of periodical crises. Otto Bauer (in his last work), Léon Sartre, Paul M. Sweezy and Fritz Sternberg provide the most interesting examples. Nevertheless, these various "models", arithmetical or algebraic, of underconsumption all suffer from a common weakness. They always *beg the question* by regarding as already shown, in their exposition of the problem, the solution which they wish to offer.†

* See Marx's very interesting observation in the *Grundrisse*: "Surplus value created at one point demands the creation of surplus value at another point, so that this may be exchanged for that."

† The same observation applies, incidentally, to most of the "models" of econometry used to demonstrate one theory or another of the cycle. See the more detailed comment given in Chapter 18, section on "The econometricians."

Thus, Paul M. Sweezy[64] sets up his model by starting from the assumption that a certain increase in the value of the production of capital goods is necessarily accompanied by a *proportionately increased* production capacity of consumer goods. In other words: the ratio $\frac{\text{value I}}{\text{value II}}$ remains stable, while the ratio

$$\frac{\text{surplus value accumulated in c}}{\text{wages} + \text{surplus value not accumulated in c}}$$

increases more and more, and along with it, the ratio

$$\frac{\text{purchasing power of I}}{\text{purchasing power of II}}$$

If one starts from this assumption, the "necessity" of the overproduction of consumer goods is, of course, proved, since it is already contained in the assumption.

Otto Bauer[65] follows a similar line of reasoning. He deduces the inevitability of the crisis from the fact that constant capital accumulates more rapidly than the need of constant capital for the production of the extra consumer goods bought by the extra workers taken on in the course of expanded reproduction. This follows logically from the employment of an increasing rate of surplus value. But Otto Bauer's model presumes that society absorbs new constant capital only *in the same proportion* as it increases its ultimate consumption. It thus presupposes a *stable proportion* between the value of production in the two sectors—which is just what has to be proved.

It should be observed that Otto Bauer is the first Marxist writer to introduce the idea of *stock of existing fixed capital* (total production capacity) and *rate of technical progress* into his model. These two ideas have been extensively used by the neo-Keynesian and econometric school, notably by Harrod, Domar, Pilvin and Hamberg.*

Léon Sartre[67] starts from the assumption that the ratio between the constant capital in the two main sectors of industrial production remains the same. He deduces this asumption from a basic hypothesis about the identity of the rate of surplus value and the rate of accumulation in the two sectors. But he supposes at the same time that the demand for capital goods increases more quickly than the demand for consumer goods. If $\frac{\text{value I}}{\text{value II}}$ remains stable while $\frac{\text{demand I}}{\text{demand II}}$ increases,

* Hamberg[66] shows that there is a stable proportion between the increase in the stock of existing fixed capital and the increase in production which results from the full employment of this stock. But he is careful not to claim that a stable proportion exists between the increase in the *total* stock of the fixed capital and the production capacity of *consumer goods* alone. He thus avoids the mistake common to all the supporters of the underconsumption theory.

crisis is obviously inevitable, and takes the form of a crisis of overproduction of consumer goods.

Here we have not only question-begging but also an error of reasoning. Sartre, like Sternberg, deduces from capitalist competition the maintenance of a constant proportion between the productive forces engaged in the two sectors. This is a mechanistic, "idyllic" idea of competition. The latter does not at all lead to equalisation of the organic composition of capital in all sectors. On the contrary, it leads to an *overall increase in the organic composition of capital*, and thereby to a relative redistribution of the productive forces, in favour of the capital goods sector. This is one of the fundamental hypotheses of Marxism, which is moreover confirmed by statistical data.* But if one incorporates this assumption in a "model" of the cycle, all notion of a constant proportion between the value of production in the two sectors collapses, and therewith all "mathematical demonstration" of the inevitable overproduction of consumer goods through under-consumption.

Sternberg's theoretical model is the most interesting one. He proceeds from a twofold basis—on the one hand, the mathematical formulae illustrating expanded reproduction in Volume II of *Capital*, and on the other, the very nature of competition.

When she studied the formulae of expanded reproduction used by Marx in Volume II of *Capital*, Rosa Luxemburg had already insisted on the fact that equilibrium of exchange between the two sectors was made possible only by the fact that the rate of accumulation, which was 50 per cent of the surplus value in Sector I, fell during the same cycle to 20 per cent of the surplus value in Sector II. Sternberg[69] takes up this critique and carries it further. He declares that this inequality between the two rates of accumulation is indispensable for the achievement of equilibrium between the two sectors, with increasing organic composition of capital in both sectors.†

* In the U.S.A., according to Shaw,[68] the production of capital goods increased from 296 million dollars in 1869 to 6,033 million in 1919; the production of consumer goods increased in the same period from 2,428 million dollars to 28,445 dollars. Sector I thus increased its production more than 20-fold, Sector II only 12-fold (and the production of this sector is over-valued, since it contains in the category of "durable consumer goods", products which are actually capital goods). For the period between 1919 and our time we have no exact calculations of the same kind. But the figures of the *Statistical Abstract* relating to different categories of commodity are revealing. Between 1919 and 1952 the production of durable goods (mostly belonging to Sector I) increased 5-fold (growing from index 72 to index 340) whereas that of non-durables only trebled (growing from index 62 to index 190).

† An interesting variant: Kalecki[70] emphasises that it is the allocation of expenditure by the capitalists, that is, the rate of accumulation of surplus value, that underlies the cycle. According to him, this rate is a function of the gap between the *rate of profit expected* and the *present* rate of profit, a gap which shrinks as production capacity rises at the end of the cycle.

Sternberg goes on to say that there is no reason to suppose that the rate of accumulation of capital would be different in the two sectors; this rate would be equalised through capitalist competition. In his formula the disequilibrium results, however, not from an equal rate of accumulation in the two sectors but from the *opposition* between an equal rate of accumulation and a different organic composition of capital in I and II.

Now, both theory and empirically-established data confirm to us that this organic composition of capital must actually be different in these two sectors. It is enough, under these conditions, to follow the working of competition to understand that the rate of accumulation *must* also be lower in Sector II. The capitalists of sector I in fact annex part of the surplus value produced by the workers of sector II, because they exploit the fact that they are technologically ahead of light industry. This conclusion, which fits the facts, leaves Sternberg's argument without a leg to stand on.

Theories of disproportionality

The other school of economics sees the fundamental cause of crisis in the *anarchy of production*, which periodically upsets the conditions of equilibrium between the two main sectors, that of consumer goods and that of capital goods, conditions which we have explained in Chapter 10. In this category can be placed those disciples of Marx such as the Russian "Legal Marxists" Tugan-Baranovsky and Bulgakov, the Austrians Hilferding and Otto Bauer (in his youthful writings), the Pole Henryk Grossman, the Soviet theoretician Bukharin, etc. Among the non-Marxist economists of this school special mention must be made of Aftalion, Schumpeter and Spiethoff.

All these theoreticians see the origin of crises in the fact that each entrepreneur endeavours to increase his own profits to the utmost, without taking into account, in his investments, the tendencies of the market as a whole. It follows logically from this idea that if the capitalists were capable of investing "rationally", i.e. so as to maintain proportions of equilibrium between the two main sectors of production, crises could be avoided. Some theoreticians have even claimed that the production of capital goods could be separated completely from the ultimate consumption of consumer goods and that it would be quite possible to imagine a system in which the whole of economic activity consisted exclusively in the making of machines to make machines, without the consumption of consumer goods coming into the system, so to speak.

The American economist Myron W. Watkins writes: "It may be asked, 'Is there no economic limit to the deferment of consumption?' The answer is that there is none, save . . . the continuance of such consumption as is essential to the proper sustenance of life. In econ-

omic theory, the indefinite [!] extension of the roundabout process [of production] is a logical aim [!] A society is conceivable in which men may for several generations (which means indefinitely) be content [!] to get along with salt, bread, milk and a loin cloth the while they are industriously and profitably [!] engaged in the production of machines and equipment of every sort."[71]

What we have here is obviously an absurd idea. No maker of textile machinery is going to double his production capacity, if analysis of the market shows him that no expansion of sales of textile products is expected, since stocks are already fully adequate: "The ultimate aim of accumulation of capital is of course to increase the production of consumer goods."[72] The production of capital goods may separate itself for a whole period from this initial basis and undergo a big expansion without *for the moment* worrying about the increase in ultimate consumption. But it is precisely this *momentary* separation that has to be paid for in the form of a crisis.

It is, moreover, false to suppose that "rational organisation" of investment in a capitalist society, i.e. the "regulation" of competition, could fully do away with economic fluctuations. Experience, notably that of German and Japanese war economy, has given striking proof of this.* No reasoning will lead all the capitalists to restrict their production voluntarily when demand exceeds supply. No logic will induce them to maintain their investments at an average level, at the moment when their current production is no longer being absorbed by the market. To eliminate crises completely, the entire cyclical development of production must be abolished, i.e. every element of uneven development, i.e. all competition, all endeavour to increase the rate of profit and of surplus value, i.e. everything that is capitalist in production . . .

The anarchy of capitalist production therefore cannot be regarded as a cause in itself, independent of all the other characteristics of this mode of production, independent in particular of the contradiction between production and consumption which is a distinctive feature of capitalism.

The supporters of the disproportionality theory forget, moreover, that a *certain* proportion between production and consumption (not a *stable* proportion, as the supporters of the underconsumption theory suppose), between the production capacity of the entire productive apparatus, the production capacity of consumer goods and the purchasing power available for these same goods, is inherent in the conditions of proportionality necessary for avoiding a crisis, and that these conditions can never be realised for a long period under capitalism.

It is to be observed that some supporters of the underconsumption

* See Chapter 14.

theory, carried away by the symmetrical beauty of their "numerical" models, have arrived at conclusions very close to those of Tugan-Baranovsky and Co. This in particular is what has happened to Léon Sartre, who writes:

"One may wonder what would become of capitalism if a well-informed economic dictatorship were to insist that an increasing share of the accumulated surplus value at the disposal of the consumer-goods industries be invested in the capital-goods industries, to the same extent as purchasing power shifted in that direction. If this happened, Tugan-Baranovsky rightly says, basing himself on the diagram, equilibrium would be maintained. The result would be a perfectly viable [?] economy in which the production of means of production would increase faster and faster and that of consumer goods would grow only very slowly . . . But a capitalism like this, producing means of production only so as to produce more means of production, remains in the world of theory, being impracticable under a competitive system."[73]

N. Bukharin also upheld the view that a *state capitalism* would know no more periodical crises of overproduction.[74]

Such "solutions" would be impracticable not only because of the impossibility of establishing a "universal trust" embracing all enterprises but also because of the *technological ratio* that exists between a certain production capacity and a production capacity of consumer goods. They would be impracticable because it is impossible, as we have shown above, completely to separate production from consumption, which remains its ultimate purpose. They would be impracticable because no "logic" would induce the capitalists to buy more and more machinery at a time when the production capacity of their machinery already exceeds the market's capacity to absorb consumer goods.

Outline of a synthesis

An attempt at synthesising underconsumption theories and theories of disproportionality has been undertaken by a whole school, which bases itself on the accelerator principle: Aftalion and Bounatian in France, Harrod in Britain, J. M. Clark and S. Kuznets in the U.S.A., etc. This attempt has been continued by synthesising the multiplier principle with the accelerator principle, as is done by the neo-Keynesian econometry school, notably Samuelson, Goodwin, Hicks, Kalecki, Harrod and Joan Robinson. These syntheses, excessively simplified, succeed merely in showing the basic instability of the capitalist system.

They are only distant approaches to the real cycle, to the understanding of which they nevertheless make important contributions.

To show how this synthesis should be undertaken in Marxist terms, we must briefly reformulate the incorrect views about the ultimate

causes of crises, which are, let us repeat, crises of *an economy which aims at profit realised by selling commodities*:

(1) The vulgar supporters of the under-consumption theory declare that crisis could be avoided by increasing the workers' purchasing power during the last phase of the boom. These theoreticians forget that the capitalists do not work simply in order to sell, but to *sell at a profit*. And when wages are raised at a moment when the rate of profit is already declining, the latter risks collapsing altogether—far from prolonging the boom, this additional increase in wages would strangle it.

(2) The vulgar supporters of disproportionality theories, and especially the supporters of what is called the "under-accumulation" school (von Hayek, von Mises, Pigou, Hawtrey, etc.),* declare that a crisis could be prevented if one were to resist any fall in the rate of profit during the last phase of the boom (for example, by freezing wages, reducing excessively high rates of interest, attempting to prevent any distortion of prices, etc.). But these theoreticians forget that if the rate of profit rises *at the same time as markets are shrinking*, this will not stop investment from slowing down. What interests the entrepreneur, indeed, is not the *theoretical* profit he can deduce from a certain rate of wages, a certain rate of interest and certain costs of production, but the *real* profit he expects to realise when he compares costs of production with the *selling possibilities* of his goods:

"High income and profit levels may be a necessary condition of investment, but they cannot be considered a sufficient one. It is questionable whether business firms have so little acumen as to expand capacity on the basis of currently high profits alone. Unless they have been operating at full capacity, with order backlogs piling up, and have been unable or unwilling to expand in the absence of more equity funds, or unless they anticipate further *growth* in sales, induced investment is likely to contract [at the peak of a boom] even in the face of high profits."[76]

And Moulton[77] opportunely recalls an example from history relevant to this subject:

"The increasing concentration of income in the higher brackets and also the rising level of urban incomes generally were serving more or less automatically [between 1919 and 1929] to increase the proportion of the aggregrate national income set aside as money savings. That is, although the current income into trade and service channels continued to expand, it expanded less rapidly than the flow of funds into investment channels. While an abundance of funds was thus available with which to construct new plant and equipment, it was evidently clear to business enterprisers that prospective consumptive demands were

* In 1927 Pigou confidently asserted that draconic [!] wage-cuts could avoid a crisis. Von Hayek proclaimed the same "truth" in 1932 [!] in the midst of huge masses of unsaleable consumer goods.[75]

not sufficiently large to warrant as much expansion as the available funds made possible."

There are, then, *two simultaneously-needed conditions* for economic recovery and the beginning of a boom: *an increasing rate of profit and expanding real markets*. At the start of the economic cycle, these two conditions may coincide for a certain number of reasons: reduction in the organic composition of capital (a larger number of workers with the same amount of equipment), comparatively low wages; increase in the rate of surplus-value, acceleration of the velocity of rotation of capital, on the one hand; and the other, increase in the overall purchasing power of the wage-earners as a whole (through the return of the unemployed to employment), investment of funds saved during the crisis and the depression (notably depreciation funds), and increasing profits quickly realised.

But the same forces that bring about the coincidence of these two factors at the start of the cycle undermine their existence more and more as the cycle progresses, and bring about their collapse towards the end of the cycle. We have already examined, above, the conditions which determine a fall in the rate of profit towards the end of the boom: increase in the organic composition of capital; fall in the rate of surplus value; slowing-down of the velocity of rotation of capital; credit becoming more expensive; increased overhead charges; rising wages, etc. We must now look at what happens as regards markets.

Demand for consumer goods rises very little after full employment has been more or less attained. As for capital goods, when the renewal of fixed capital has been completed, industry is re-equipped with a production capacity exceeding the possibilities of absorption by the market. New investment becomes increasingly improbable. Shrinkage of markets thus takes place in both sectors. The coincidence of the fall in the rate of profit with the shrinkage of markets brings about the crisis.

Is there general overproduction at the moment of the crisis? Undoubtedly there is. It follows necessarily from the two basic aspects of the boom.

Economic recovery, by causing a rise in the rate of surplus value and a rise in the rate of profit, changes the allocation of the national income among the classes, to the advantage of the bourgeoisie and at the expense of the wage-earners. Many writers confirm this opinion (Haberler, Schumpeter, Lederer, Foster and Catchings, Hobson, Moszkowska, Hicks, etc.)[78]* Sombart expresses the idea like this:

* Professor Guitton gives the following picture of the average cyclical variations in France during the nineteenth century: prices rise by 17 per cent in boom and fall by 16 per cent in depression; wages rise by 12 per cent in boom and fall by 3 per cent in depression; profits rise by 40 to 200 per cent [!] in boom and fall by 14 to 38 per cent in depression.[79]

"It is the conjuncture of expansion itself . . . which, in periods of recovery, has the effect that wages do not rise to the same extent as surplus value, owing to the rise in prices; this also, by regular movements of contraction, by expelling workers (from the production process), is what fills up the labour market to the desired degree, so creating the industrial reserve army which prevents an excessive rise in wages."[80]

But at the same time as the wage-earners' share of the national income relatively falls, the production capacity of the industries producing consumer goods is constantly growing. The moment has to come at which the increase in this production capacity exceeds the level of demand.

Furthermore, the increase in the production capacity of the sector producing capital goods corresponds to the need for renewing a substantial part of the fixed capital of all industry. When this renewal has been achieved, sector I will be able to avoid overproduction only on condition that investment *continues at the same pace*, which is obviously not possible.[81]

Society's greatly increased production capacity cannot be used to a more or less complete extent until after a preliminary destruction of value, adaptation of the value of the commodities to the new amount of labour socially-necessary to produce them, a smaller amount than that which determined the previous level of value of these commodities. *The collapse of the boom is thus the collapse of the attempt to maintain the former level of values, prices and rates of profit with an increased quantity of capital.* It is the conflict between the conditions for the accumulation of capital and for its realisation, which is merely the unfolding of all the contradictions inherent in capitalism, *all* of which enter into this explanation of crises: contradictions between the great development of production capacity and the not-so-great development of the consumption-capacity of the broad masses; contradictions arising from the anarchy of production resulting from competition, the increase in the organic composition of capital and the fall in the rate of profit; contradictions between the increasing socialisation of production and the private form of appropriation.*

The conditions of capitalist expansion

The historical conditions which ensure the expansion of the capitalist mode of production, have already been explained above. They arise essentially from the *uneven development* of different sectors, branches and countries drawn into the capitalist market. The creation of the world market, which precedes the great advance of the capitalist mode

* On crises in the epoch of declining capitalism, and the role of public expenditure in the economy, see Chapter 14, section on "A crisis-free capitalism?"

of production, establishes the general setting for this uneven development. The latter shows itself in:

(*a*) Unevenness of development as between industry and agriculture. As industry develops, its commodities drive out the products of the domestic and craft labour of the peasantry, ruining a section of the country people, who become proletarians and form a mass of labour available to expanding industry. The value of industrial production increases as compared with that of agricultural production; the industrial labour force increases as compared with the number of persons occupied in agriculture. The peasants buy more means of production (which previously they made for themselves) from large scale industry, which buys raw material from the peasants, though in smaller proportions.

(*b*) Unevenness of development as between the countries first to be industrialised and the colonial and semi-colonial countries. The industry of the first-industrialised countries destroys the craft and domestic production of the colonial and semi-colonial countries, which are transformed into markets of the advanced countries. The labour-power "released" as a result of this destruction of the age-old equilibrium between agriculture and industry cannot find occupation in an expanding national industry, because it is the expansion of industry in the *metropolitan* country that has made it possible to conquer this market. In consequence there appear the related phenomena of chronic under-employment and pressure of over-population on the land. "The results come quickly: in 1813 Calcutta exported £2 million worth of cotton goods; in 1830 it imported cotton goods to the same value. The import of cotton goods into India as a whole rose from £8 million in 1859 to £16 million in 1877 and £20 million in 1901, that of silks from £1·4 million to £7 million and £16 million, and that of cotton thread from £1·7 million to £2·8 million."

At the same time India became more and more agricultural, and in the same period 1850–1877 the export of raw cotton increased from £4 million to £13 million, that of jute from £0·9 million to £3 million, that of tea from £0·15 million to £2·6 million, and that of oil from £2·5 million to £5·4 million. [82]

A combination of four obstacles to the capitalist industrialisation of the colonial and semi-colonial countries resulted: competition from commodities produced in the metropolitan country; competition between the very cheap local labour-power and modern machinery; shortage of capital owing to investment of the accumulated income of the ruling class in landed property; and lack of adequate internal markets such as would make possible a rapid development of some industrial sectors.*

(*c*) Unevenness of development as between different branches of

* See Chapters 6, 9 and 13.

industry, especially between declining ones and those which are on the upgrade owing to successive technological revolutions. The declining branches see their markets, their turnover, the numbers employed in them, getting smaller and smaller, at first relatively, then absolutely. After trying to defend themselves by increasing the organic composition of capital and reducing prices (relatively or absolutely), they submit, and henceforth renew only part of their fixed capital. A share of the surplus value and the depreciation funds of these sectors spills on to the capital market, attracted by the sectors which are expanding rapidly. The latter carve themselves a place in the market by tearing resources (fixed capital, raw material, purchasing power) from the existing sectors, either by slowing down the growth of some of them or else by causing absolute setbacks to others.

(*d*) Unevenness of development as between different parts of a single country. This phenomenon, usually underestimated in Marxist economic writing, is in reality one of the essential keys to the understanding of expanded reproduction. *By creating depressed areas within the capitalist nations, the capitalist mode of production itself creates its own "complementary" markets, as well as its permanent reserves of labour-power.* This happened with Scotland and Wales in Britain, the Southern States in the U.S.A., the eastern and southern parts of Germany, Flanders in Belgium, Slovakia in Czechoslovakia, the South in Italy, the South and the North in the Netherlands, France south of the Loire, and so on. What is characteristic of the spasmodic, unequal, contradictory development of the capitalist mode of production is that it cannot industrialise systematically and harmoniously the whole of a large country. The gradual abolition of old depressed areas is itself accompanied by the appearance of new depressed areas: New England in the U.S.A., the Borinage and the la Louvière region in Belgium: Lancashire in Britain; Haute-Loire in France; Genoa in Italy, etc. The irony of history is such that often these new depressed areas were formerly the cradles of capitalist industry in these countries.

No growth without fluctuations?

Since the great crisis of 1929 the idea of a harmonious and balanced development of the capitalist order has finally fallen into discredit. The most fashionable bourgeois writers, such as Schumpeter, have, like Marx, put stress on the basic instability of the capitalist mode of production. For Schumpeter this instability results from the fact that "innovation", i.e. the application of technical discoveries to industry, cannot be spread evenly over the whole duration of the economic cycle, but tends to be concentrated in certain spaced-out periods.[83] For the econometricians the basic instability of the mode of production results from the fact that the conditions needed for unbroken growth are unrealisable in practice, owing to the special nature

of investment under capitalism:* "The system will not remain in progressive equilibrium unless it is *completely adjusted* to it . . . A system is unlikely to be completely adjusted in a progressive equilibrium until it has been in approximate equilibrium for a long time. It is not sufficient that the capital stock should be adjusted to current output; it is also necessary that it should fall due for replacement at the right dates. The induced investment of the future which is already preconditioned (to a considerable extent) by past changes in output, the effects of which are embodied in existing equipment, must be such as to be consistent with steady development."[85]

Joan Robinson makes the same point: "An economy which existed in a state of tranquillity, lucidity and harmony would be devoted to the production and consumption of wealth in a rational manner. It is only necessary to describe these conditions to see how remote they are from the states in which actual economies dwell. Capitalism, in particular, could never have come into existence in such conditions, for the divorce between work and property, which makes large-scale enterprise possible, entails conflict; and the rules of the game have been developed precisely to make accumulation and technical progress possible in conditions of uncertainty and imperfect knowledge."[86]

And, further: "For each individual entrepreneur the future is uncertain even when the economy as a whole is developing smoothly, and the actions of each entrepreneur affect the situation for the rest. For this reason there is an inherent instability, under the capitalist rules of the game, which generates fluctuations, so to say, from within the economy, quite apart from any change in external circumstances. The typical entrepreneur, as soon as he finds his existing capacity operating at what seems to him a reasonable rate of profit, wants to operate more capacity. Unless investment just hits off the golden-age rate, at which demand grows with capacity (or unless it is effectively controlled), it will always be oscillating, for whenever it happens to rise it generates a seller's market, and so stimulates a further rise."[87]

Writers who conscientiously try to emphasise the advantages of the capitalist mode of production as the most progressive mode of production, like Arthur F. Burns and David McCorde Wright, have taken a step further and declared that it is *impossible* to conceive of an economy open to the benefits of technological progress or possessing a substantial stock of fixed capital which would not be subject to fluctuations. According to them, the choice is not between progress with or without fluctuations but rather between progress with fluctuations and complete stagnation.

Thus, David McCorde Wright writes: "The *fundamental* cause of the business cycle is the failure of changes in taste and technique to occur at rates which smoothly offset one another. It is *durability* of

* Including fluctuations in stocks: see Metzler, Abramovitz, Eckert.[84]

equipment plus asymmetrical *changeability* of wants plus inevitable frictions plus *consumer sovereignty* [!] which produces the business cycle . . . Any growing society which wants to meet the pattern of consumer spending will inevitably suffer certain [!] instabilities and insecurities."[88]

Let us first of all throw Noah's garment over the most absurd aspect of this apologia, namely, the allegation that the innovations which bring the big waves of investment result from "changes in taste on the part of the consumer". It was not, after all, the "need to have a car" that created the motor-car industry; it was this industry that created the need to have a car. It is the investment of enormous amounts of capital in new sectors of industry (and, to a subsidiary extent, publicity for their products) that changes the taste of consumers, and not the changing taste of consumers that brings about the flow of enormous amounts of capital into certain sectors, or, even less, technical inventions.

But would these innovations not occur in an irregular way in a planned economy, a socialist economy?*

Would not the durability of industrial equipment bring about equally in such an economy the phenomenon of "overproduction", through the need to meet *sudden demands* (e.g. the introduction of colour television; or the effect of a sudden increase in the population on the building industry, etc.)?

According to McCord Wright,[90] *any* economic system has *a choice only between two evils*: either to keep up the planned pace of growth, of production, in these sectors, and so provoke prolonged irritation on the part of the consumers (reflected in a rise in prices, etc.), or else to increase rapidly the rate of progress of production by exceptional investments, and so expose oneself to over-equipment (the appearance of excess capacity) from the moment when the exceptional demand has been satisfied (e.g. when all the extra population has been provided with housing, and the demand for renewal declines owing to a changed age-structure of this same population).

Arthur F. Burns had already set forth the same view in his article *Long Cycles in Construction*, published in 1935 and reproduced in his collection *Frontiers of Economic Knowledge* (1954). He there explains the instability of the demand for housing in a "collectivist society", and strives to show that such a society would experience marked cyclical fluctuations in the building trade.[91] But his entire argument is based on a simplistic assumption, namely, that what is available to each family must remain *fixed* and that house building fluctuates exclusively in accordance with fluctuations in the population (and the more-or-less correct forecasting of this).

From the moment when we abandon this assumption and accept, on

* Schumpeter and Cassel[80] emphasise the same idea.

the contrary, that planned economy has a *twofold* aim—first and foremost, to provide each family with the indispensable "housing unit", constituting the minimum standard of comfort, but then, after that, to bring the minimum standard of housing up to the *optimum* standard (from the standpoint of comfort, town-planning, hygiene, upbringing of children, etc.)—the whole of Burns' theory collapses. As soon as a surplus of capacity, in relation to immediate needs, makes its appearance, this capacity can be used to bring about an improvement in the living conditions of part of the population. And as one may reasonably assume that this *optimum* itself has a tendency to rise, as a result of scientific and technical progress, no "excess capacity" is conceivable for a long period of time.

McCorde Wright's mistake is exactly the same. In order to demonstrate the "fluctuations" inevitable in a planned economy he imagines an economy which has abolished only one aspect of capitalism (private ownership of the means of production), while retaining all its other aspects. Thus, when a backlog of demand has been satisfied, he sees no other result than "overproduction" or "excess capacity"; it does not occur to him that it would be possible to make an additional and new range of consumer goods available to society.* When the productive apparatus is "hypertrophied", he does not realise that one can "adapt it to need" by reducing the producers' working time. When he brings in an "absolute excess capacity" without the possibility of making "new products", he does not realise that the putting into reserve of part of this machinery would be accompanied by no reduction of consumption or "income" for society, and so by no *economic* fluctuation, since this withdrawal of machinery would have been *caused* precisely by the fact that the *real needs* (and not merely effective monetary demand) of society had been *previously and completely satisfied*.

The fluctuations of production which entail fluctuations in income and consumption, through overproduction of commodities, and which thus imply periodical unemployment and poverty, are peculiar to capitalism. They did not exist before capitalism, and they will not survive it.†

* Hamberg[92] emphasises what a ceaselessly expanding range of products can be manufactured with the same modern equipment.

† See Chapter 17.

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Marxist Economic Theory

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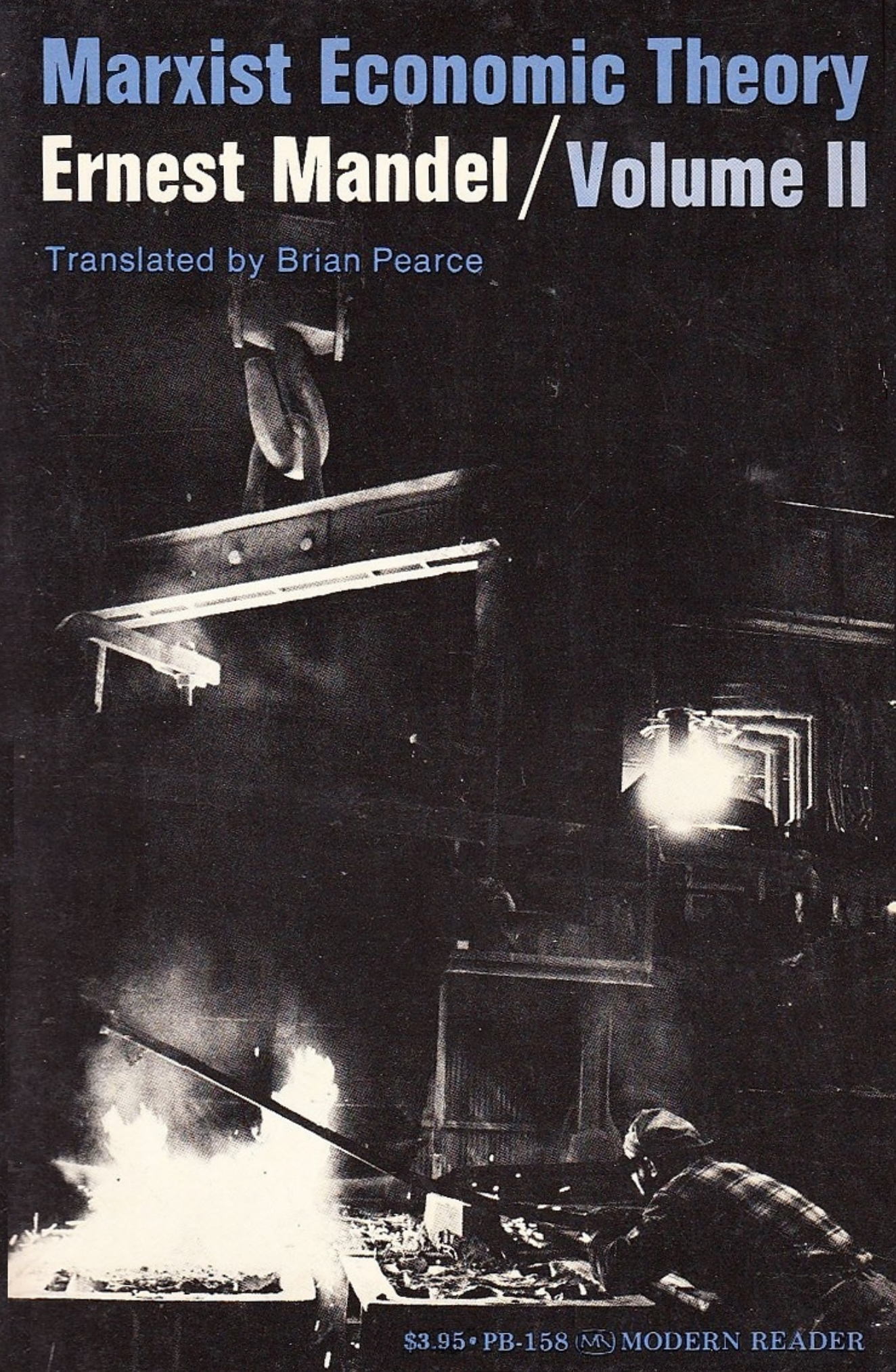

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CHAPTER TWELVE

MONOPOLY CAPITALISM

The second industrial revolution

DURING the last quarter of the nineteenth century, capitalist industry was drawn into a fresh technical revolution. Like the first, the second industrial revolution changed essentially the source of power for production and transport. Alongside coal and steam, petrol and electricity henceforth played their part in driving the wheels and the machinery. From the end of the century onward the internal combustion engine and the electric motor took the place of prime movers operated by steam.

This power revolution transformed the whole of industrial life. At the same time, steel-making was given a new impetus by the introduction of the Bessemer process, the open-hearth furnace, and the Siemens-Martin regenerators, together with processes for hardening steel with alloys.* Steel became more and more the basic industrial material. Further, the electrolysis of bauxite made it possible to turn aluminium into a cheap raw material for industrial use, whereas previously it had been regarded as a precious metal, costing £7 an ounce.

Finally, the chemical industry underwent during this same period its first big development. With knowledge of the use of coal by-products, this industry proceeded to make dyes synthetically, and dealt a mortal blow to the ancient production of natural dyes in the Far East. The synthetic textile industry also came into being.

The industrial revolution at the end of the nineteenth century altered the relative importance of the different branches of industry in world economy.[2] For a century, cotton and coal had been kings. Now steel held the first place, soon to be followed by mechanical engineering and motor car production.

In Britain the centre of gravity shifted from Manchester (cotton) to Birmingham (steel). At the same time Britain lost for good its industrial preponderance and its monopoly of high productivity, as

* In 1870 American production of Bessemer steel did not exceed 30,500 tons; in 1880 it reached 850,000 tons, and in 1890 1·9 million tons. In 1880 the quantity of iron rails produced was still the same as that of steel rails; in 1890 iron rails made up less than 1 per cent of the total tonnage. In 1874 the first steel bridge was built, over the Mississippi at St. Louis.[1]

the power revolution favoured the U.S.A. most of all, owing to its petroleum resources.

Industrial concentration accentuated

The industrial revolution at the end of the nineteenth century proved a powerful stimulant to the centralisation and concentration of industrial capital. The development of the steel-making industry involved the disappearance of all the old blast-furnaces which used wood as fuel. The new plant required substantial investment of capital and eliminated most of the very small businesses operating in this key branch of industry; the number of American steel-making companies fell from 735 in 1880 to 16 in 1950.[3] Several new industries arose which were characterised by the predominance of giant concerns (aluminium, chemicals, electrical apparatus) owing to the amount of expensive equipment needed. The accelerated development of fixed capital, the large minimum equipment needed to establish a profitable new business, encouraged capitalist concentration.

"Industries in which the smallest productive unit that can still be efficiently operated is very large are not readily entered by newcomers. This is for several reasons: it takes enormous amounts of capital to put up a new unit; the establishment of a new unit may mean such a large addition to the existing capacity of the industry that the effect upon total supply may be more than the market can be expected to absorb without drastic price reductions; and the uncertainties involved in all this may appear forbidding. Thus, a large minimum size, or large optimum size, may be seen to be a sort of 'natural' barrier to entry."[4]

The entry of a number of new countries into the market, such as Japan, Russia and Italy, likewise stimulated the concentration of capital. These countries did not reproduce the entire industrial structure of the nations which had preceded them in economic development. They took over only the most modern part, that is, the enterprises in which the organic composition of capital was highest and the degree of centralisation most pronounced. The predominance of giant concerns, as compared with small and medium-sized ones, was to be from the very start much more marked in Russian and Japanese heavy industry than in the corresponding industries in the more advanced countries.

The same law of uneven development determined the more rapid progress of the concentration of capital in Germany and the U.S.A., countries whose industrial advance, in the strict sense, took place during the last quarter of the nineteenth century, as compared with the countries whose advance had taken place in the previous half century: Britain, Belgium, France.

Finally, the new techniques themselves favoured concentration.

Thus, electrical power made possible the synchronisation of factory work, the introduction of the conveyor-belt, and new divisions of labour which favoured the integration of concerns both horizontally and vertically.

The concentration of capital is shown primarily by the fact that the big enterprises employ a more and more substantial proportion of the total industrial labour force.

Here, for *Germany*, are the percentages of all non-agricultural labour employed in the various categories of enterprises: [5]

	1882 %	*1895* %	*1905* %	*1925* %	*1933* %	*1950** %	*1961** %
Enterprises with							
0 to 10 employees	65·9	54·5	45·0	39·4	46·8	24·6	24·3
11 to 50 employees	12·1	15·8	17·9	19·1	14·3	28·7	15·9
51 to 200 employees	10·1	14·0	16·8	18·0	14·3	9·6	14·5
Over 200 employees	11·9	15·7	20·3	23·5	24·6	37·1	45·1

For the same country, the evolution in industry taken separately is even more striking: [6]

	1933		*1952*		*1957*	
	A %	B %	A %	B %	A %	B %
Factories with						
1 to 9 employees	88·6	19·6	46·1	2·9	44·7	2·2
10 to 49 employees	8·1	15·4	34·0	12·4	31·7	9·4
50 to 99 employees	2·4	21·5	9·0	9·9	10·0	8·6
100 to 199 employees			5·2	11·5	6·3	10·8
200 to 499 employees	0·8	43·4	3·6	17·3	4·6	17·6
500 to 999 employees			1·1	11·7	1·5	12·5
over 1,000 employees			0·9	34·3	1·2	38·8

A = percentage of the total number of enterprises.
B = percentage of the total number of employees.

It will be seen that in the course of less than thirty years, the percentage of the labour-force employed in industrial enterprises with over 200 employees increased from 43 to 69 per cent.

Besides the steady growth of big enterprises these figures clearly indicate the radical change which occurred during the 75 years of German industry's advance. In 1882 *nearly two-thirds* of German employees worked in enterprises where there were fewer than ten employees. In 1961, in the non-agricultural sector, this percentage had fallen to *less than a quarter*, and in industrial enterprises to 2 per cent. Enterprises employing over 200 people had only one-tenth of the non-agricultural employees in 1882; in 1905 they had a fifth, in 1933 a quarter, and nearly half at the beginning of the 1960s.

* All the figures for 1950 and 1961 relate to the territory of the German Federal Republic. The figures for the second category for 1950 year relate to enterprises with between 10 and 99 workers, and those for the third category to enterprises with between 100 and 199 workers.

Here is how the structure of non-agricultural enterprises evolved in *France*:

	1896		*1906*		*1926*		*1958*	
No. of employees	A %	B %	A %	B %	A %	B %	A %	B %
1 to 10	98·3	62·7	98·3	58·9	96·1	39·2	95·4	20·0
11 to 50	1·32	11·7	1·34	11·5	3·0	15·6	3·6	28·8
51 to 100	0·18	5·1	0·19	5·17	0·8	7·4	0·5	
101 to 500	0·02	11·2	0·02	12·68	0·03	17·5	0·5	21·4
over 500		9·3		11·7		19·3		29·8

A = percentage of the total number of enterprises.
B = percentage of the total number of employees.

Small non-agricultural enterprises with ten or fewer employees, still had nearly two-thirds of the wage-earning labour-force in 1896; today they have less than a fifth. Enterprises with over 100 employees had a fifth of the labour-force in 1896, but in 1958 they had 51 per cent.[7]*

As regards *Italy*, here is the evolution which has taken place during the last thirty years:

	1927		*1937-39*		*1958*	
Employees by category	A %	B %	A %	B %	A %	B %
2 to 10	89·6	31·3	88·7	24·3	76·1	15·4
11 to 100	9·1	26·5	9·7	25·4	21·2	27·4
101 to 1,000	1·2	31·7	1·5	33·6	2·5	27·9
over 1,000	0·1	10·7	0·1	16·7	0·2	29·2

A = percentage of total number of enterprises.
B = percentage of total number of employees.[9]

In *Belgium*, the following percentage of the labour-force employed in industry (including coal-mining) worked in enterprises with more than 50 employees: 51·2 per cent, in 1896, 56·8 per cent in 1910, 62·7 per cent in 1930, 66·7 per cent in 1956.

Here are the corresponding figures for the most typical country of present-day capitalism, the *United States*.

NUMBER OF MANUFACTURING ESTABLISHMENTS EMPLOYING

	1909	*1914*	*1929*	*1955*
0 to 4 employees	136,289†	74,766	102,097	255,684
5 to 100 employees	91,697	86,141	88,797	
101 to 500 employees	11,021	10,972	13,275	22,395
501 to 1,000 employees	1,223	1,200	1,579	2,862
over 1,000 employees	540	577	921	21,106

* In 1959 this percentage had already risen to 55 per cent.[8]

† The figures for 1900 included among manufacturing establishments a number of small workshops of the craft type which were not subsequently included in the census. This is why we have not taken them as our starting point in the above table, though they show an even more marked tendency towards concentration than appears in the figures given.

NUMBER OF EMPLOYEES PER CATEGORY OF ENTERPRISE

	1909	*1914*	*1929*	*1955*
0 to 4 employees	311,704	181,566	726,808	4,181,000
5 to 100 employees	2,187,499	2,082,873	2,236,157	
101 to 500 employees	2,265,096	2,258,438	2,750,797	4,688,000
501 to 1,000 employees	837,473	824,625	1,079,277	1,977,000
over 1,000 employees	1,013,274	1,131,211	2,026,713	5,499,000[10]

Thus, enterprises employing *fewer than 500* people and which made up 99·6 per cent of all the factories in 1909, 99 per cent of them in 1914, 98 per cent in 1929 and 97·5 per cent in 1955 employed:

In 1909: 72·0 per cent of all employees.
In 1914: 69·8 per cent of all employees.
In 1929: 62·9 per cent of all employees.
In 1955: 54·3 per cent of all employees.

On the other hand, firms employing *over 1,000* people, and making up less than one per cent of all factories in all the years compared, employed:

In 1909: 15·3 per cent of all employees.
In 1914: 17·4 per cent of all employees.
In 1929: 24·2 per cent of all employees.
In 1955: 33·6 per cent of all employees.

The *average* size of manufacturing enterprises increased from 8 employees in 1850, 9 in 1860, and 10·5 in 1880 to 35 in 1914, 40 in 1929, 53 in 1939 and 55·4 in 1954. In the last mentioned year, enterprises with over 1,000 employees concentrated 32·8 per cent of the total personnel employed in industry, but produced 37 per cent of the "value added" in industry.

Nevertheless, these figures do not give an exact picture of industrial concentration in the United States. Actually, the concentration of labour is less advanced than the concentration of incomes and that of profits. Thus, the annual surveys of the Bureau of Internal Revenue give the following picture of the proportion of the total income of all manufacturing companies which goes to the different categories:

COMPANIES WHOSE NET ANNUAL REVENUE IS

	1918 %	*1929* %	*1927* %	*1942* %
Less than 50,000 dollars	8·17	7·06	6·76	3·34
between 50 and 500,000 dollars	24·58	19·31	20·09	14·69
between 500,000 and 5 million dollars	33·08	46·11	32·05	31·28
more than 5 million dollars	34·17	27·52	41·12	50·69

Finally, an investigation carried out by the Federal Trade Commission showed that the 200 largest companies in the United States

had 35 per cent of the turnover of all companies in 1935, 37 per cent in 1947, 40·5 per cent in 1950 and 47 per cent in 1958. The post-war boom, which saw the number of manufacturing companies increase by 50 per cent, thus did not bring a fall-off in concentration. On the contrary, this continued vigorously, but the number of very large enterprises which emerged from this concentration evidently increased in a period of lively expansion.[11]

Monopoly agreements, groupings and combines

The accelerated concentration of capital which occurred from the last quarter of the nineteenth century onward was at once the consequence and the cause of an increase in the organic composition of capital. Born of the need to assemble a substantial amount of fixed capital in order to produce under optimum conditions of profitability, industrial concentration, by putting great resources in the hands of a relatively small number of capitalists, enabled them to carve out a bigger and bigger place for themselves on the market and to drive out of it large numbers of small and medium-sized manufacturers. At the same time, the speculation raging in the new sectors of industry, the feverishly rapid growth of production, made and unmade fortunes at an accelerated pace. The very largest enterprises found themselves confronted with risks which had increased in the same proportion as their business had expanded. The banks, which had to a large extent organised the expansion of business, were not prepared to run such risks. The long depression in trade after 1873 contributed markedly to make the capitalists aware of these risks.[12]

Under the pressure of all these factors, a radical change took place in the thinking of the biggest capitalists, in their way of looking at business organisation. Instead of clinging to the creed of free competition, they began to look for possibilities of restricting it in order to prevent any fall in prices, that is, any marked fall in their rate of profit. The need to ensure regular and rapid depreciation of an ever growing amount of fixed capital worked in the same direction.[13] Understandings were arrived at between capitalists, which entailed agreements not to compete by lowering prices.*

Responsible spokesmen of the big bourgeoisie pretty soon gave expression to this new need to abolish price competition and make alliances and combines. Interviewed by the *New York Tribune*, H.

* Even a paper so favourable to liberalism and the views of employers as the *Neue Zürcher Zeitung* is obliged to observe[14] regarding the German capitalists: "It is curious, and perhaps not to be explained except psychologically [!], that German businessmen, for whose freedom lawyers and economists . . . have struggled for years, do not, for the most part, want this freedom . . . That freedom in relation to the State has for its condition . . . acceptance of risk in business is no longer recognised except when a seller's market prevails and one can thereby justify increased prices and profits."

H. Rogers, one of Rockefeller's associates in the formation of the Standard Oil Trust, declared so early as 1874: "If by common consent, in good faith, the refiners agree to reduce the quantities to an allotment for each, made in view of the supply and demand, and the capacity for production, the market can be regulated with a reasonable profit for all. The price of oil today is fifteen cents per gallon. The proposed allotment of business would probably advance the price to twenty cents . . . Oil to yield a fair profit should be sold for twenty-five cents per gallon."[15]

The chairman of the British Soap Makers' Association stated in January 1901 that it had become impossible "to make profits without association and combination."[16] And a more famous soap-maker, Mr. Lever himself, had to say in 1903: "In the old days a manufactory could be an individual concern. Next . . . a partnership . . . Then it grew beyond the capital available by two or three joining together as a partnership, and limited companies became necessary . . . Now we have reached a further stage again, when a number of limited companies require to be grouped together in what we call a combine . . ."[17]

Examples could be multiplied indefinitely. In 1912, a Chicago lawyer, Mr. A. J. Eddy, summed up the new doctrine in a work entitled *The New Competition*, in which he declared that this "new" form of competition was based on "open prices", that is, on general information regarding costs of production and selling prices.[18] Let us quote in conclusion the book by the chief organiser of Imperial Chemical Industries, Lord Melchett, published in 1928: competition he said, was outmoded; it "inevitably led . . . to co-operation", through mergers and international agreements.[19]

Inter-capitalist undertakings were not *new* phenomena, in the strict sense. The *industrial* capitalism of free competition was born directly of that *commercial* capitalism which found in monopolies its chief source of profit. Hardly had these old exclusive alliances passed away than new ones appeared. Did not Adam Smith already note that industrialists in the same branch of production never meet but to "conspire" in order to raise the prices the public has to pay?

Beginning in 1817, Britain saw the monopolisation of the Cheshire salt trade. At Newcastle the "committee for the limitation of the vend" was operating to supervise carefully the production and sale of coal along the rivers Tyne and Wear.[20] In 1851 the *Cincinnati Gazette* reported: "About four years ago, the salt manufacturers of the Kanawha River, finding that their capacity to manufacture salt was larger than the demand for consumption. . . and it having consequently went [*sic*] down to a ruinous price, formed themselves into an association, for the purpose of protecting their interests, by fixing the price of the article, and limiting the amount manufactured to the actual wants of

the west." Indeed, the United States saw the appearance in 1853, of the American Brass Association, "to meet ruinous competition"; in 1854 the Hampton Country Cotton Spinners' Association, "to control price policies"; and in 1855 the American Iron Association, with the same purpose.[21]

But all these moves in the direction of monopoly had to remain isolated and ephemeral so long as the comparatively modest average size of enterprises made possible the ebb and flow of capital between one branch and another, following the oscillations of the rate of profit. Too many enterprises had to be grouped together, under these conditions, in order to *control* effectively a national market; too little new capital was needed to break a *de facto* monopoly. Only the centralisation and concentration of capital—the creation of giant enterprises tying up an enormous amount of capital, and the predominance of a few firms in a number of branches of industry—could establish conditions favouring the development and relative stabilisation of monopolies.

It was thus logical that these monopolies first appeared in the countries (U.S.A., Germany, Japan) and industries (petrol, steel, motor cars, electrical apparatus, chemicals, etc.) which did not advance until the late nineteenth century or early twentieth century.

The number of firms making motor cars shrank in the U.S.A. from 265 in 1909 to 88 in 1921, 44 in 1926, 11 in 1937 and 6 in 1955. In Britain the number shrank from 88 in 1922 to 31 in 1929 and 20 in 1956, 5 of which were responsible for 95 per cent of total production.[22]

Although a national "pool" for fixing prices in the rope industry appeared in 1861, the first trust in the strict sense was the petroleum trust, Standard Oil. The exploitation of oil wells had begun in 1859 at Titusville, in Pennsylvania. The first company, Pennsylvania Rock, made such profits that 77 competitors appeared after less than a year! "Free competition" could then be studied in all its "elasticity". Prices fell from 20 dollars per refined barrel in 1859 to 10 cents at the end of 1861, to rise again to an average of 8·5 dollars in 1863, then fall to 2·40 dollars, average, in 1867.

When prices continued to fluctuate and foreign competition became more intense, "certain Pennsylvania refiners, it is not too certain who, brought to them (i.e. to Rockefeller and his associates, who at that time controlled only a small fraction of refined production in the U.S.A.) a remarkable scheme, the gist of which was to bring together secretly a large enough body of refiners and shippers to persuade all the railroads handling oil to give to the company formed special rebates on its oil, and drawbacks on that of other people."[23]

In this way the Southern Improvement Company (1871) was formed, controlling 10 per cent of the refinery capacity of the U.S.A. It failed, but Rockefeller was launched on the road to concentration. Its place

was taken by the National Refiners' Association (1872), a Central Association (1875) which already united the majority of refineries, and later by a central holding company based on a monopoly of pipelines. In 1884 Standard Oil was refining 90 per cent of all American petrol and transported practically 100 per cent to the refineries. The first monopoly trust was born.[24]

In the same period, understandings between employers began to develop in Europe, especially after the crisis of 1873 and the sharp fall in the rate of profit which it caused. We find at the start of these alliances every time the same reaction against the fall in the rate of profit, in the nineteenth century as in the twentieth. This is how an historian explains the formation of the first brick sales office in Dortmund (1888): "It is enough to recall the economic pressure produced by the acute price conflict, without considering the immense stocks of certain products, to realise that the conclusion . . . was bound to be drawn that only an agreement could prevent enormous reductions in prices. . ."[25]

Half a century later this is what happened, in the synthetic textiles branch in Britain: "In acetate yarns production, competition has been more severe and has lasted longer. The two chief competitors were Courtaulds and British Celanese. The profits of both firms were reduced in 1937 and 1938. Early in 1939 these two firms came to an arrangement over outstanding differences, and the prices of both viscose and acetate yarns were increased by about 2d. per pound."[26]

The forms of capitalist concentration

In order to protect, maintain or increase their rate of profit, capitalist enterprises arrive at understandings or enter into agreements to collaborate which take a great variety of forms. In accordance with the framework provided by the British commission of inquiry into industrial concentration after the First World War,[27] E. A. G. Robinson[28] distinguishes between 13 forms of agreement and concentration, which we will reduce to seven:

1. *Gentlemen's agreements,* or voluntary arrangements between producers not to sell below certain prices or in certain areas. Such an arrangement was concluded, e.g. by the British soap makers in 1901.[29]

2. *Price-regulating associations.* These are distinguished from gentlemen's agreements by more formal and effective arrangements. The shipping conferences provide a classical example.[30]

3. *Pools.* In general, experience shows that price agreements are not effective until there is a definite sharing-out of the market with precise allocations to each producer.[31] Pools are thus distinguished from price agreements by the fact that they envisage such a definite division of

the market. A pool of this kind came into operation fairly soon in the steel-making industry in the U.S.A.[32] The classic example remains the American meatpackers' pool, which carved up the American market for two decades.[33]

4. *Cartels, buying or selling syndicates, sales offices.* Whereas the three first-mentioned groupings are limited in time, cartels and sales offices form an intermediate form between a temporary grouping and a lasting alliance. The enterprises taking part retain their independence; but they are bound by more-or-less long-term mutual contracts, set up common organisations for buying or selling, and often have to pay heavy fines if they break these agreements.

5. *Trusts.* Originally, the trust is a grouping to which previously competing companies entrust their shares, receiving in exchange certificates which indicate the proportion in which they participate in the joint effort. Standard Oil was the classical trust in the U.S.A., but it was declared illegal in 1890.[34] We shall subsequently use the word "trust" in the more general sense that it has acquired, namely, the outcome of a merger of enterprises.

6. *Holding Company, or Konzern.* This means a holding company through which it is possible to concentrate financial control over a number of businesses which themselves remain formally independent. It remains the instrument most commonly used in many countries to bring about the formation of great monopoly empires, notably in the U.S.A.[35], in Belgium,[36] in Germany and in France.[37]

The holding company makes it possible to reduce the proportion of capital needed in order to wield effective control over a large number of companies, through various techniques such as "waterfall"-shareholding or cross-shareholding.*

7. *Mergers,* which are the most "solid" and lasting form of capitalist concentration, in which all legal or financial independence of the constituent companies vanishes. According to their origins, one can

* "The banks . . . retain the majority of the shares of the holding company which they have thus formed. Through this one parent company they control all the members of the group, without directly committing their own resources. In this way they realise a big saving of capital. If, in order to possess a majority at the general meetings of the holding company, it is necessary to own 40 per cent of the shares, and if the holding company in its turn retains control of the members by means of a similar proportion of their shares, the bank enjoys supreme control of the companies in the group by tying up an amount equivalent to 16 per cent of the group's capital."[38] For example: the Banque de Paris et des Pays-Bas formed in 1911 the holding company called the Compagnie Générale du Maroc. The latter controlled in 1952[39] more than fifty companies in Morocco, including banks, transport, petrol, electric power, cement, coal, agricultural machinery and mining firms. Through this holding, all Morocco is *the* domain of the Banque de Paris et des Pays-Bas.

distinguish between *horizontal* trusts, formed by the merging of firms in a single branch of industry (e.g. cigarette, motor car, aircraft, etc., trusts) and *vertical* trusts (grouping firms which reciprocally supply each other's raw materials), and these can in their turn be divided into:

(*a*) *divergent trusts*, which are formed from firms which make the raw materials for factories making various semi-finished or finished products (the U.S. Steel Corporation, Cockerill-Ougrée in Belgium, etc.).

(*b*) *convergent trusts*, which bring together firms making different raw materials and semi-finished products which enter into the making of one particular finished product (e.g. certain motor car trusts).

(*c*) *heterogeneous trusts*, which are made up of firms which have no common bond technically or economically except that they are under the control of the same financial group. This was the case with the Lever trust at the beginning of the 1920s, when, besides soapworks and firms making raw materials, it controlled fisheries, paper-works and engineering works.[40]

In the U.S.A. the period 1897–1904 saw the birth of the majority of the monopoly trusts, as the result of a great merger movement. The number of trusts, which was only 23 in 1890 and 38 in 1896, reached 257 in 1904; the annual capitalisation of mergers, which had never before exceeded 240 million dollars, reached 710 million in 1898 and 2,244 billion in 1899. Out of 339 mergers which took place in this period, 156 gave rise to a definite degree of monopoly power.[41] Since 1900, 32 per cent of industrial production and 40 per cent of mining production (leaving oil out of it) had been under monopoly control in the U.S.A.[42]

Bank concentration and finance capital

The same factors which favour industrial concentration likewise give a strong stimulus to bank concentration. Through this competition, many small banks are absorbed by one large one. Each important crisis sees as a rule the ruin of many bankers: over 2,000 banks disappeared in the U.S.A. in the 1933 slump.[43] More and more capital is needed to establish as close a network as possible of branches, covering the whole national territory and the chief places abroad. Accordingly, the phenomena of concentration and centralisation of bank capital are to be observed in all countries.

In France the three big deposit banks, the Crédit Lyonnais, the Société Générale and the Comptoir National d'Escompte saw their shares increase tenfold in value between 1880 and 1914 and their deposits rise from 580 million gold francs in 1880 to 2,256 million in 1914 and 7,215 million in 1930 (or 35·5 billion Poincaré francs). At that time they held over 50 per cent of all the bank deposits in France, a proportion which did not change at all in 1950, after the nationalising of these banks.

In *Britain* the number of joint-stock banks declined from 104 in 1890 to 45 in 1910 and 25 in 1942, while the number of their branches has increased threefold in the same period and their deposits have increased tenfold. The Big Five—the National Provincial, the Westminster, the Midland, Lloyds and Barclays—held 27 per cent of all British bank deposits in 1900, 39·7 per cent in 1913, 72·4 per cent in 1924, 73 per cent in 1942 and 79 per cent in 1953.

In *Germany* the nine big banks have concentrated in their hands the following percentage of bank deposits: 1907–08 47 per cent; 1912–13 49 per cent; 1924 54·6 per cent; 1934 65·5 per cent. In 1943 the six biggest banks held 62·9 per cent of bank deposits. After the Second World War and a momentary decentralisation, the three chief banks have again been playing a predominant role in the sphere of credit. In 1956 they were behind 55 per cent of all German bank credits, exactly the same percentage as in 1938.

In *Japan*, the total number of banks fell from 2,155 in 1914 to 1,001 in 1929, 424 in 1936, 146 in 1942, less than 100 in 1943 and 61 in 1945, according to the Japan Economic and Financial Annual. The five biggest banks concentrated 24·3 per cent of all bank deposits in 1926, 34·6 per cent in 1929, 41·9 per cent in 1936 and 62 per cent in 1945 (the eight biggest banks). After the American decartellisation measures this percentage fell below 10 per cent, to climb back to 35 per cent by 1953.

As for the *U.S.A.* the total number of national banks rose from 3,732 in 1900 to 8,030 in 1920, then fell to 7,536 in 1929, 5,209 in 1939 and 5,021 in 1945. Among these banks the ones possessing a capital of their own in excess of 5 million, that is, 21 in 1923, 39 in 1930 and 40 in 1934, concentrated 22·1 per cent, 43·3 per cent and 47·8 per cent respectively of all the bank deposits.

The concentration of funds available for investment in a small number of banks, at a moment when industry urgently needs these funds in order to take advantage of the considerable expansion of business, becomes one of the chief factors promoting industrial concentration. Here is a significant dialogue on this subject between the U.S. Secretary of the Interior, Mr. Chapman, and Mr. Celler, the Chairman of the House of Representatives sub-committee to investigate the power of monopolies:

MR. CHAPMAN: "To develop a steel plant the outlay in capital is extensive, very extensive . . ."

MR. CELLER: "He [the possible founder of a new steelworks] would have to go to the financial institutions, would he not?"

MR. CHAPMAN: "He would."

MR. CELLER: "And if those financial institutions have liaison or connection with the existing companies, they would not be likely to set forth any new competitors; would they?"

MR. CHAPMAN: "Obviously they would not do that. They have not been doing it."[44]

In Belgium, by way of exception, banking capital has played the role of *finance capital* from the very beginning of the independent kingdom, that is, it has dominated industry ever since its first phase of expansion, through preponderant shareholdings in the first limited companies, a position subsequently strengthened still further in the age of colonial expansion:

"In the last years of the Dutch period, the Société Générale advanced capital to coal-mining firms. In addition, it helped in the building of canals for the purpose of facilitating the despatch of coal to France. When the Revolution (of 1830) brought about an industrial crisis, some collieries found themselves unable to repay the debts they had contracted. The bank loan thus became transformed into a lasting investment by the bank in these firms, and in order to mobilise this investment the collieries concerned were turned into limited companies, this operation being carried out in 1834–1835 . . . When economic recovery set in, when the building of railways was decided on and steam-engines had become widespread, industrial enterprises too had to be transformed and developed. Quite as a matter of course, the idea of turning them into limited companies was accepted. . ."[45]

In France, after the unsuccessful initiative of the Crédit Mobilier, launched by the Péreire brothers, the investment banks gave strong support to the establishment of industrial firms during the 1870s and 1880s. The Banque de Paris et des Pays-Bas and the Banque d'Indochine presided over the expansion of French business in the colonies acquired after the war of 1870–1871.

In Germany, the A. Schaffhausener Bankverein played a similar predominant role in financing the tremendous industrial advance of the 1870s. From the beginning of the twentieth century, the heads of the six chief German banks were members of the boards of directors of 344 industrial companies.[46] Finance capital soon "imposed itself" on industry,* as is shown by the following letter which one of the big banks sent to the board of directors of the Zentrales Nordwestdeutsches Zementsyndikat, 19th November, 1901:

"We observe from the announcement you have published in the

* How the big banks intervene in the running of the businesses of their small debtors is shown by the following passage, which refers to the Bank of Italy, ancestor of the Bank of America: "It was about this period (*c.* 1921) the Bank of Italy began putting the borrowing farmer on a budget, a radical departure for that day. The budget ran the whole gamut of farming costs: capital expenditures . . . ; materials and supplies . . . operating costs for crop-ploughing, cultivating, irrigating, pruning, harvesting and hauling; an estimate of monthly advances; and crop forecasts. Behind every budget was a watchful Bank of Italy man—branch manager, field man or appraiser—to see that the borrower lived up to his contract . . ."[47]

Reichsanzeiger of the 18th inst. that we must expect that at the next general meeting of your company, to be held on the 30th inst., decisions may be adopted which could imply changes in your firms which would be unacceptable to us. For this reason, and to our great regret, we are compelled to cancel as from now the credits which we have hitherto allowed you . . . If, however, the general meeting should not adopt these unacceptable decisions, and provided that we are given suitable guarantees for the future on this matter, we shall be prepared to open discussions with you regarding fresh credits."[48]

In the U.S.A. the investment bankers played a dominant role in industrial concentration, beginning with the "consolidation" of the railway companies. Already during this campaign the bankers clearly announced the *monopolistic* purpose of these concentrations. We have a plain expression of this purpose by John P. Morgan, in the following declaration which he made to the heads of all the railway companies west of the Mississippi on 10th January, 1889:

"I am quite prepared to state in behalf of the (banking) houses represented here that if an organisation can be formed practically on the basis submitted by the committee, with an executive committee able to enforce its provisions, upon which the bankers shall be represented, they are prepared to say that they will not negotiate, and will do all in their power to prevent the negotiation of, any securities for the construction of parallel lines or the extension of lines not unanimously approved by such an executive committee."[49]

And in the great merger movement between 1896 and 1904 it was the bankers who played the key role: "Though the captains of industry themselves engineered most of the combinations before 1890, the bankers and financiers soon ceased to be mere intermediaries. They became the promoters. In organising large consolidations they soon took the place of the roving professional promoters who had for a time offered the investing public corporate securities with a strong speculative appeal. It was under their auspices, and spurred by their encouragement that the combination movement rose to flood tide around the turn of the century."[50]

Finally, in Japan it was the banks that took the place of the holding companies after the Second World War as central pillars of the Zaibatsu, the financial groups controlling the country's national economy. An investigation carried out in 1953 showed that in the 320 most important companies the banks held altogether 35·1 per cent of the shares and the insurance companies 16·1 per cent.[51]

Monopolies

The concentration of industrial capital and the formation of capitalist alliances, groups and trusts, resulted in the establishment of *de facto* monopolies in a number of sectors of industry. A single firm or a small

number of firms were in control of such a substantial slice of production that they could, over fairly long periods, fix prices and rates of profit as they wished, these becoming largely independent of the state of business.*

Analysing the conditions under which the 1,807 most ordinary products were manufactured in the U.S.A., Walter F. Crowther discovered in 1937 that *half* of these products came from sectors in which not more than four firms were responsible for over 75 per cent of production. In 1947 this picture had become even more impressive. Here are some of these indices of concentration, reported by the American Department of Commerce for that year.

Products produced to the extent of 50 per cent or more of total value by a single firm

	%		%
Fire extinguishers	85	Incandescent lamps	59
Films for amateurs	85	Linoleum	58
Conic bearings	80	Binding machines	56
Tinned soup	66	Tinned foods	55
Ball bearings	60	Crude aluminium	55

Products produced to the extent of 66 per cent or more of total value by two firms

	%		%
Industrial gases	85	Milk bottles	70
Locomotives	80	Lorries	68
Sewing machines	78	Synthetic yarn	68
Refined copper	74	Motor cars	63

Products produced to the extent of 66 per cent or more of total value by three firms

	%		%
Agricultural binders	92	Cigarettes	78
Domestic cotton thread	90	Tractors	76
Refined rubber	88	Spectacles	75
Crude copper	88	Office machinery	70
Cotton gauze bandages	85	Enamelled metal	70
Fruit jars	85	Electric cookers	69
Explosives	80	Electric tubes	68
Soap	80	Rubber tyres, etc.[53]	70
Calcined plaster	79		

* Here is an extreme example. The American trust General Electric acquired in 1928 a complete monopoly of the American market for tungsten carbide, an alloy which is indispensable for high-speed machine tools. Through the establishment of this monopoly, the price of tungsten carbide leapt from 50 to 453 dollars a pound, and stayed there all through the crisis, right down to 1936. The cost of production was 8 dollars.[52]

In Britain a study published in 1945[54] gives the following percentages of the value of production held in each sector by the three, or fewer, biggest firms, based on the census of 1935:

	%		%
Condensed milk	96	Ball bearings	97
Matches	97	Cigarettes	88
Refined sugar	82	Railway wagons	86
Motor spirit	88	Cement	76
Rayon	79	Paper hangings	91
Screws for wood	98	Zinc	100
Barbed wire	92	Dyes	88
Vacuum cleaners	85	Gramophone records	99
Bar chocolate	85	Lithophone	100
Sewing machines	93	Cocoa	93
Nickel and nickel alloys	100	Linoleum	86
Pipes	92	Wireless valves	85
Explosives	100	Soap flakes	77
Tyres	79		

In addition, 118 articles were manufactured by one or two firms only.

In West Germany Pritzkoleit estimates in his work *Männer, Mächte, Monopole*[55] that three trusts dominate the zinc and lead industry: Metallgesellschaft, Degussa and Otto Wolff. Potash mining is dominated by three firms, the chief of which, Wintershall, also controls over 50 per cent of Germany's production of crude petroleum. R.W.E. controls two-thirds of the production of electricity for industrial consumption and nearly three-quarters of lignite production. More than half of the production of margarine and of fishing as a business are dominated by Unilever. The Swiss Nestlé group dominates the market for condensed milk, concentrated soups and chocolate. One group alone (Reemtsma) controls 60 per cent of the cigarette industry and two groups (Lever and Henkel) 90 per cent of the detergent industry. Delog produces 50 per cent of window glass. Two groups, Glanzstoff and Phrix, produced more than three-quarters of all plastic materials. Siemens and A.E.G. produce 40 to 50 per cent of electric apparatus. A single group, Pfaff, controls 60 per cent of the production of sewing machines, etc.

As regards the heavy industry of the Ruhr, in spite of the decartellisation decided on in 1945, seven big firms (Mannesmann, Klöckner, Dortmund-Hörder Union, Phoenix Gute Hoffnungshütte, Rheinhausen and Hœsch) in 1954 again concentrated over 65 per cent of production in their hands, and fresh concentrations were reported within these groups. (See the speech by Mr. A. Wehrer, member of the Supreme Authority of the C.E.C.A., at Longwy, 12th November, 1955.)

In *France*:

Five groups (Sidelor, Lorraine-Escaut-Saulnes, De Wendel, Schneider, Usinor) controlled 55 per cent of the production of iron ore in 1952 and 62 per cent of steel production in 1953.

Pechiney-Ugine holds a quasi-complete monopoly of aluminium, magnesium and cobalt; Penarroya (Rothschild) controls three-quarters of lead production.

The Raty group has a quasi-monopoly of the manufacture of steel tubes, and the Sidelor group a quasi-monopoly of the manufacture of brass pipes.

Four groups (Renault, Citröen, Peugeot and Ford) control 98 per cent of the production of motor cars for private use.

Three companies controlled in 1953 61 per cent of the production of tractors.

Three groups of manufacturers completely monopolise the making of light bulbs.

The Kuhlmann group produces 80 per cent of all dyes.

The Saint-Gobain group produces two-thirds of all mirrors, half of all glass bottles, beakers and drinking-vessels, all fibre-glass, etc.

The Gillet group, which has the monopoly of nylon, produces more than two-thirds of all artificial textiles.

Three groups supply 86 per cent of France's production of newsprint, etc.[56]

In *Japan* the evolution of control by a single trust over the chief sectors of the economy emerges from the following table: [57]

PERCENTAGE OF PRODUCTION CONTROLLED BY THE MITSUI TRUST

	1900	*1920*	*1943*
Petrol	50	50	90
Iron	90	95	92
Gold	5	19	27*
Coal	30	27	27*
Armaments	—	25	30
Alcohol	10	15	45
Celluloid	—	80	100
Paper	50	50	90
Cement	15	15	20*
Wool	10	15	30
Silk	25	15	45

* With satellite firms, at the end of 1941, 68 per cent of gold production, 50 per cent of metallurgical production, 55 per cent of that of cement, 45 per cent of that of electric power, 80 per cent of fisheries, 50 per cent of beer and sugar.

PERCENTAGE OF PRODUCTION CONTROLLED BY MITSUBISHI

	1900	*1920*	*1943*
Zinc	—	57	50
Tin	—	90	90
Shipbuilding	40	40	60
Aircraft	—	—	30
Armaments	—	30	30
Alcohol	—	—	50
Glassware	—	65	90
Artificial wool	—	—	50*
Beer	25	30	45
Sugar	15	15	45
Trade in wheat	30	30	48
Maritime transport	40	39	35*

After the de-cartellisation measures following the end of the Second World War, the monopolistic structure of Japanese industry was kept in being, as can be seen from the following table published in *The Oriental Economist*, July 1966:

Products which are produced to the extent of 66% or more of total value by three firms:

	%		%
Sheet glass	100	Rayon filament yarn	79·8
Three-wheelers	100	Cheese	77·8
Ordinary passenger cars	100	Small passenger cars	75·6
Light passenger cars	98·7	Polyethylene	75·0
Beer	96·2	Zinc	74·9
Powder milk	94	Lead	74·4
Polyester	92	Small trucks	74·1
Aluminium ingots	90·6	Wide steel hoops	67·6
Polyvinyl Chloride	89·4	Lubricating oil	66·7
Calcium cyanamide	83·5	(five firms)	
Butter	82·1	etc.	
Nylon	81·1		

In *Italy* the report of the Constituent Assembly's economic commission gave the following indices of concentration for 1947: [58]

* With satellite firms, end of 1941, 70 per cent of artificial silk production, 80 per cent of maritime transport.

Sector of industry	*No. of trusts*	*Percentage of production controlled*
Rayon	2	90
Aluminium	3	95
Mercury	1	70
Shipbuilding	3	86
Rubber	4	82
Motor cars	2	84
Matches	1	81
Ball-bearings	1	90
Coal	3	86
Synthetic ammonia	2	86

The empires of the financial groups

The actual power of the great monopolies nevertheless very greatly exceeds the mere control of certain sectors of production where they dominate the market. The financial groups which control these sectors are also masters of banks, insurance companies, industrial, commercial and transport companies which bear a wide variety of names and give no cause for supposing, at first glance, that they inter-connect. In order to sort out these often slender threads one has to undertake detective work, studying the composition of boards of directors, analysing the work of companies which have chairman or delegated directors in common, trace the past evolution of the blocks of shares represented at extraordinary general meetings, and examining, if possible, the general division of the shares of all the important companies in the given country.

At the end of this research the same structure is discovered to exist in the majority of the capitalist countries: a handful of financial groups possessing control over a large proportion of industrial and financial activity; some 60, 125 or 200 families, placed at the apex of the social pyramid, who wield their power sometimes as individuals but often as a more or less compact collective group.

The participation of representatives of financial groups in the boards of directors of many important trusts gives a key to the extent of the control they exercise.

Thus, in the *United States*:

Winthrop W. Aldrich, chairman of the powerful Chase National Bank (Rockefeller group) was in 1948 also head of the richest trust in the world (assets of 10 billion dollars), the American Telephone and Telegraph Company; a director of the biggest insurance company in the world, the Metropolitan Life Assurance Company; of the Wes-

tinghouse electric trust, the International Paper trust, and the banks Discount Corporation of New York and Chase Safe Deposit Company. This man shared control of more than 20 billion dollars of capital, or 9,000 billion francs (the equivalent of three of France's annual budgets at the beginning of the 1950s).

George Whitney, partner in the bank J. P. Morgan and Company, was in the same year a director of the electricity trust Consolidated Edison of New York, of the General Motors Company, of Kennecott Copper, of the Pullman Company, the Continental Oil Company and the big bank called Guaranty Trust Company.

R. K. Mellon, chairman of the Mellon National Bank, is at the same time head of the holding companies F. Mellon and Sons and Millbank Corporation and a director of the Aluminium Company of America (ALCOA), the Gulf Oil Company, the electric power trust Westinghouse Air Brake Corporation, the Pittsburgh Plate Glass Company, the Pennsylvania Railroad Company, the gas trust Koppers Corporation, the Union Switch and Signal Company, and the big insurance companies named National Union Fire Insurance Company, General Reinsurance Corporation and North Star Reinsurance Company.[59]

In *France*, according to the *Annuaire Desfossés* for 1958:

Emmanuel Monnick, chief executive of the Banque de Paris et des Pays-Bas (of whose board of directors he is chairman), holds directorships in thirteen companies, including the chief French oil company, Esso-Standard, the Suez Canal Company, the Bank of Indochina, the Ottoman Bank, the Credit Foncier Franco-Canadien, Hachette's Bookshops, the Sugar Refineries of St. Louis, the Forges et Acieries du Nord et de L'Est.

Pierre Getten, chief executive of the Rothschild group, sits on eighteen boards of directors. He is chairman of those of the Belgian Société des Mines, Minerais et Metaux, the Indochina and Yunnan Railways, and the Société de Contrôle de l'Exploitation des Transports Auxiliaires. He is vice-chairman of the Compagnie des Chemins de Fer du Nord (one of the chief holding companies of the group), of the powerful world-wide iron-ferrous metals trust Penarroya, of Entrepôts et Magasins Généraux de Paris, and of various concerns in the north of France. He is a director of several companies, such as Djibouti Railway, the Belgian steel trusts Cockerill-Ougrée and Providence, the International Sleeping Car Company, Forges et Acieries du Nord et de l'Est, Omnium Nord-African, etc.

Baron Rodolphe Hottinguer is chairman of the board of the Schneider engineering trust and director of eleven companies, including Kléber-Colombes, Compagnie des Minerais et Métaux, Vieille-Montagne, the Ottoman Bank, Forges de Châtillon-Commentry et Neuves-Maisons, etc.

It is to be observed that the families of big investment bankers hold many directorships: 28 in the case of the Hottinguers, 39 for the Mallets, 51 for the Vernes, 16 for the Nervos—four families which are, moreover, linked together by marriage. The De Vogüé family hold 21 directorships, the De Wendels 17, the Laurents 29, the Foulds 5, the Gillets 37, the De Vitry d'Avancourts [of Péchiney!] 12, the Marquis de Flers 16, etc.

In *Britain*:

The nine directors of the Midland Bank sat in 1951–52 on the boards of 38 companies, including Imperial Chemical Industries, Dunlop Rubber, J. & P. Coats, International Nickel, etc. The nineteen directors of Lloyds Bank sat on the boards of 75 companies, including Royal Dutch Shell, Vickers, Rolls Royce, English Electric, etc. The thirteen directors of the National Provincial Bank sat on the boards of 60 companies, including British Petroleum (formerly Anglo-Iranian), Imperial Tobacco, Burma Oil, Tube Investments, Prudential Insurance, Ford Motors, and a number of tea firms.

In *West Germany*, the law forbids anyone to be a member of more than 20 boards of directors. This law has not been respected, since in 1954 the banker R. von Oppenheim was a member of 35 boards, the big industrialist Werhahn of 23, etc. Here are two particularly flagrant examples of accumulation of economic power, by way of interlinked companies:

In 1954 the banker *Hermann Abs* was on the boards of the Süddeutsche Bank, Glanzstoff, Badische Anilin (I.G. Farben), Zeiss Ikon (the chief photography trust), Siemens and Halske (the chief electrical construction company), Delog (50 per cent of Germany's glass production), Salamander (chief leather goods firm), Norddeutsche Lederwerke, Accumulatoren-Fabrik A.G., Metallgesellschaft, Philip Holzmann A.G. (building), Kali-Chemie, Süddeutsche Zucker, Dahlbusch collieries, Rheinpreussen, Deutsche Solvay-Werke, Deutsch Shell A.G., Portland Zementwerke Heidelberg, R.W.E. (Chief electric-power producing firm), Dortmund Hörder-Union (one of the main steelworks), and some "minor" businesses—24 directorships in all.

In the same year the banker *Pferdmerges* was a member of 26 boards of directors, including A.E.G. Klöckner, Harpener Bergbau (chief colliery), August Thyssen-Hütte, Kabelwerk Rheydt, Felten and Guillaume (rubber), Demag, Keksfabrik H. Bahlsen, Rheinische Kurstjeide, Schöllersche Kammgarnspinnerei, Deutsche Centralbodenkredit A.G. (chief building society), Rheinisch-Westfälische Bodenkreditbank and a dozen insurance companies, including Concordia, Nordstern and National.

Here are the chief financial groups in certain countries:

In the *U.S.A.* at the end of 1952 there were seven principal groups, which were themselves interlinked:

The Morgan-National-City Bank Group, controlling *inter alia* the biggest steel trust in the world, United States Steel; the biggest electrical apparatus trust in the world, General Electric; the second and third biggest copper trusts in the U.S.A., Kennecott Copper and Phelps Dodge; the Baldwin Locomotive Works, chief producer of Diesel locomotives; Montgomery Ward and Company, the second biggest mail order firm in the U.S.A.; the gigantic American Telegraph and Telephone Company, which holds the most important assets of all the non-financial joint-stock companies in America and controls a significant proportion of the public services; important railway networks (the New York Central and Alleghany systems); the New York Insurance, Mutual Life and Prudential Insurance companies, and two big banks besides the Morgan National City Bank, the Guarantee Trust Co. and the Bankers Trust Co.

The *Kuhn-Loeb group*, dominated by the Warburg family, is based on investment banks and controls 22 per cent of the important railways of the U.S.A., the Western Union Telegraph Company, the Bank of Manhattan, etc.

The *Rockefeller group*, which works by ownership of substantial blocks of shares in the companies it controls, including one of the most important American banks, Chase National; the biggest insurance company, Metropolitan Life; and the Standard Oil and Vacuum Oil trusts, which together refine more than half of America's petrol. It controls the Eastern Airlines, and, in combination with the Morgans, the Olin Mathieson chemical trust and International Paper.

The *Mellon group*, which works both by ownership of decisive blocks of shares and by centralisation through banking of the firms it controls, including ALCOA (the chief aluminium trust in the world), Koppers Company (the chief producer of industrial gas in the U.S.A.), the Gulf Oil Company (one of the chief petrol-producing firms), three steel trusts located at Pittsburgh, the Pullman Company, the main producer of rolling stock, and, probably, Westinghouse Electric, the second electrical apparatus trust in the U.S.A. (in conjunction with the Rockefeller group).

The *Du Pont group*, working from a holding company which possesses decisive blocks of shares in the companies under its control, which include the E.I. Du Pont de Nemours Company, the world's leading chemical trust; General Motors, the leading motor car trust in the world; United States Rubber, the third biggest rubber goods firm in the U.S.A.; Bendix Aviation and North American Aviation, two of the chief aircraft trusts in the U.S.A.; the National Bank of Detroit, etc.

The *Chicago group*, which unites several of the 60 families: the MacCormicks, the Deerings, the Nemours, the Fields, etc., and controls International Harvester, the chief agricultural machinery trust; Armour and Company, the chief frozen meat trust; Sears Roebuck, the main mail order company of the U.S.A.; Marshall Field and Company, one of the principal department stores; the steel trust Inland Steel, and two powerful banks, First National Bank of Chicago and Continental Illinois National Bank.

The Bank of America group, the chief bank of the United States, which exercises widespread control in the state of California, notably over Clayton and Anderson, the chief cotton trading firm, over a number of public utility companies, over the Kaiser group of industries, and over 25 per cent of the cultivated land of California.

In *Britain*:

Imperial Chemical Industries has a *de facto* monopoly of the production of basic chemicals in Britain, and is today the biggest trust in Europe.

Unilever controls most of the margarine industry throughout Europe and also the trade in vegetable oils in Africa, and is in fact one of masters of the latter continent. It likewise controls soap production in several countries.

The *British Motor Corporation*, the outcome of a merger between Austin and Morris, today dominates the British-controlled production of motor cars in Britain.

Courtaulds controls 80 per cent of British production of artificial silk and plays a preponderant part in the chemical textile industry.

Oppenheimer (De Beers) controls the world's production of diamonds and has a considerable influence in the production of copper and gold.

Dunlop Rubber dominates Britain's rubber production.

Royal Dutch Shell—like Unilever, an Anglo-Dutch company—dominates oil production under British control in a number of countries, owns a large fleet of oil tankers, etc.

Vickers Armstrong (armaments) is linked with several steel, electricity, etc., firms.

The *Spens group* controls a big share of the world's production of tin, etc.

Interpenetration among these big trusts, deposit banks, insurance companies and merchant bankers is very extensive, and it is often hard to decide who actually controls these impressive aggregates. Thus, the house of Baring and the Midland Bank seem to play a preponderant role in the I.C.I., the Prudential insurance company in the Birmingham Small Arms Company; the Lazards in Rolls Royce, etc. The Wolfson, Cadbury and Gluckstein families control, respectively the

Great Universal Stores, the chocolate trust named after the Cadburys, and the Lyons trust.

In *West Germany* the decartellisation and bank-deconcentration measures were soon done away with. Financial groups again dominate West German industry, though not always in the same forms or with the same balance of forces as before 1945.

The *I.G. Farben group* continues to be the principal German monopoly group, controlling the chemical industry and the Rheinische Stahlwerke, and being closely linked with some important banks, such as the Deutsche Bank and the Berliner Handelsgesellschaft.

The *Thyssen group*, which via various heirs and heiresses of Fritz Thyssen controls once more some important steel-making and coal-mining groups, as also a big shipyard.

The *Mannesmann group*, which controls a big proportion of steel tube production, owns a powerful coal and steel combine, is closely linked with the Deutsche Bank and Deutsche Erdöl A.G., etc.

The *Haniel group*: Gutehoffnungshütte, Commerzbank, linked to M.A.N. and Deutsche Werft.

The *Klöckner group* (steel and engineering) linked with the Deutsche Bank and Siemens.

The *Krupp group* (Rheinhausen, Krupp works, Weser A.G. naval dockyard, three coal mines), linked with the Swedish group Wenner-Gren, the Bochumer Verein, Wasag-Chemie, etc.

The *Flick group*: Maximilianshütte, Buderus'sche Stahlwerke, Daimler-Benz, Auto-Union, Feldmühle Papier and Zellstoff, as well as important foreign investments.

The *Siemens group* (Siemens and Halske), linked with Mannesmann, Deutsche Bank and Klöckner.

The *Quandt group*: Accumulatoren-Fabrik A.G., Karlsruhe A.G., Wintershall (chief potash producers), Correcta, etc.

The *Werhahn group*: oils, soap, chocolate, flour, influence in R.W.E. (chief electricity producer), Heinrich Lanz A.G., linked with the Oppenheim banking firm, etc.

The *Stumm group*, controlling Neunkirchener Eisenwerk and Dillinger Hüttenwerke (Saar), has penetrated the Michel group and has a considerable amount of shares in the steel industry of Lorraine (Sollac).

The *Oetker group*, controlling the food trust of the same name, dominates an important group of breweries, owns the three insurance companies of the Condor group, has acquired several shipping lines, which have made it the principal shipowning firm in Germany, and has shares in the private bank named Lampe, which plays a big part in the food industry.

The banking group of *Merck, Finck and Company*, which has pre-

ponderant influence over the insurance companies of South Germany, the Isarwerke, etc.

The *Oppenheim banking group*, which has preponderant influence over the insurance companies of the Rhineland.

In *Belgium*, eight financial groups—Société Générale, De Launoit, Solvay, Empain, Evence Coppee, Baron Lambert, Petrofina, Sofina—control nearly two-thirds of the country's industrial production and over three-quarters of the economy of the former Belgian Congo.

In *Italy*:

The *Montecatini group*, which controls the country's chemical industry, included in 1945 eighteen directors who were on the boards of a total of 63 joint-stock companies, owning 25 per cent of all the capital of Italian firms (especially strong in textiles, metallurgy, insurance).

The *Edison group* controls the electric power and electrical apparatus, industries, and has shares in firms representing 17 per cent of all the share capital in Italy (especially transport, banking, extraction industries, glass).*

The *Flack group* dominates the steel industry.

The *Snia Viscosa group* dominates the artificial textiles industry.

The *Fiat group* dominates the motor car industry, with large holdings in metallurgy and steel, the glass industry and chemicals.

The *Pirelli group* dominates the rubber industry, with a considerable footing in metallurgy.

The *Caproni group* has a quasi-monopoly of armaments production.

The *Breda group*: rolling stock, engineering, etc.

In *Japan*, before the defeat of 1945, the three super-trusts, or Zaibatsu, completely dominated the economy; today they have recovered most of their power. Here is a table showing the trusts they controlled, the companies embraced in these trusts and the capital concentrated in this way:

		In millions of yen	
	No. of companies directly controlled	*With capital in 1939*	*With capital at end of 1942*
1. *Mitsui Group*			
Mitsui	112	1,428	1,875
Mangyo*	100	1,249	1,712
Furokawa	21	107	160
2. *Mitsubishi Group*			
Mitsubishi	74	1,291	1,745
Nichitsu	32	471	557

* Recently, the Montecatini and Edison groups have decided to merge.

Mori	30	275	330
Nisso	44	165	195
3. *Yasuda Group*			
Yasuda	50	484	584
Asano	47	270	270
Okura	40	176	176
4. *Sumitomo Group*			
Sumitomo	27	442	624
Noruma	26	159	159
Dominated by the big four:			
Riken	60	102	130
Independent: Kawasaki	24	99	200
4 super-trusts, 14 trusts	687	6,724	8,717

Since then, in spite of decartellisation measures, the pre-war situation has been largely restored. Three Zaibatsu are emerging: the Mitsubishi (who at present hold first place), the Mitsui and the Sumitomo. There are also two other important groups: the Fuji Bank group and the Sanwa group. These financial groups have to a large extent acquired predominant influence in the new industries that have arisen in Japan since the war. Thus, the Mitsubishi group wields predominant influence over the principal iron and steel trust, the Yawata Iron and Steel Co. The Sanwa group appears to dominate the iron and steel trust Kobe Steel. The Mitsui group controls the car trust Toyota Motor Co. Of the five principal ship-building firms, three are controlled by the Mitsubishi, the Mitsui and the Sanwa. A similar situation is taking shape in the petrochemical industry.

In *France* Professor Oualid observed before the war that there were "great committees standing at the head of the principal large branches of production . . . The best known and most powerful are the Comité des Houillères, the Comité des Forges, the Comité des Armateurs, the Comité des Industries chimiques, and the Comité des Assurances. These great committees, which in theory are not cartels but rather super-syndicates, help to maintain a spirit of collaboration among their members which is incompatible with their former competition with each other." About the same time, Augustin Hamon, in his book *Les maîtres de la France,* grouped the trusts into the following super-groups:

The *Schneider-Creusot group,* dominating the steel industry (Comité des Forges), linked with the Banque de l'Union Parisienne and the Mirabaud, Hottinguer, Mallet and De Neuflize investment banks, which control most of the big insurance companies.

The *Banque de Paris et des Pays-Bas group,* wielding predominant

* The Mangyo group, set up and developed by the army, dominated Manchuria under Japanese occupation, but was absorbed in 1943 by Mitsui.

influence in North Africa and, through the associated Bank of Indochina, in Indochina also.

The Chemical Industry groups: *the Rhône-Poulenc, Kühlmann* and other trusts.

The *Michelin-Citroën group* (rubber and motor car trusts).

Recently, Jacques Houssiaux has listed the following additional groups:

The *Louis-Dreyfus group* (petrol, foreign trade).

The *'Printemps' group* (big stores).

The *Péchiney-Seichime group* (chemicals, Laminoirs du Havre, large influence in Thomson-Houston, etc.).

The *Saint-Gobain group* (glass and chemicals).

The *Boussac group* (textiles).

The *Fould group* (naval dockyards, Ateliers de la Loire, Compagnie française des Pétroles, etc.).

The steel-making groups: *De Wendel, Usinor, Sidelor*, etc.

In *India*, a government report published in 1966 (Report of the Monopolies Inquiry Commission, 1965) shows that seven groups control 382 non-financial firms, with a total capital of 11·5 billion rupees. These groups—Tata, Birla, Martin Burn, Bangur, A.C.C., Thapar, Sahn Jain—along with some other groups such as Bird Heilgers, Singhania, Walchand, etc., and some foreign trusts, dominate the modern sector of the Indian economy.

Monopoly super-profits

Confronted with the increase in the organic composition of capital and with the growing risks of depreciation of fixed capital in a period when periodical crises are regarded as inevitable, monopoly capitalism aims above all to safeguard and increase the rate of profit of the trusts.

J. M. Clark notes that modifications in technique, changes of fashion which affect the goods produced, may render unusable equipment which is not yet worn out. Thus, the depreciation of specialised machines must be effected in a small number of years, if one wishes to avoid the consequences of this risk.[60]

In this way a monopoly rate of profit is established, higher than the average rate. It is the "control" of the free flow of capital, or the elimination of competition, that enables the monopoly sectors to escape from participating in the general equalisation of the rate of profit.

The simplest form of monopoly super-profit is *cartel rent*. The formation of a cartel in a particular sector of industry brings about the unification of prices. This does not take place, however, on the basis of the average profit, that is, on the basis of the average social productivity. On the contrary, it takes place on a basis which enables

that participant in the cartel who works with the lowest *productivity* to realise the average rate of profit. The difference between the price of production of the other participants and the selling price of the least advantageously placed participant constitutes the cartel rent.

Thus, when the cartel of rail manufacturers was formed in 1883, it worked like this, according to a witness who was directly involved: "The price was fixed from England 'at very much what we considered the cost price would be at the least favoured works', and the different works were given a quota according to their 'assessed capabilities'."[61]

Let us suppose that the average rate of profit is 20 per cent and the average organic composition of capital 4 : 1. A locomotive cartel combines four companies whose production has the following value:

$$\begin{aligned} &\text{I:} && 600\,c + 100\,v + 100\,s = 800 \\ &\text{II:} && 400\,c + 100\,v + 100\,s = 600 \\ &\text{III:} && 350\,c + 100\,v + 100\,s = 550 \\ &\text{IV:} && 250\,c + 100\,v + 100\,s = 450 \end{aligned}$$

Let us assume that the production of firms III and IV represents two locomotives, that of firm II three and that of firm I four. If there were free competition of goods and capital within this sector, each of the four firms would realise 20 per cent profit. Firm IV would sell its locomotives for 420 (210 each); firm III for 540 (270 each); firm II for 600 (200 each); and firm I for 840 (210 each). But this average profit would be realised only so long as, demand balancing supply on the market, even the dearest locomotive would still find a purchaser. As soon as supply outstripped demand, firm III would have to sell at a loss.

But from the moment that the cartel is in effective control of the market, the calculation will be made quite differently. It is firm III that is in the least advantageous position; it is its selling price that will provide the basic price accepted by the entire cartel. The locomotives will thus be sold at 270 each. The selling price of I will be 1,080 (380 profit, of which 140 average profit and 240 cartel rent). The selling price of II will be 810 (310 profit, of which 120 average profit, 190 cartel rent). The selling price of III will be 540, its profit being equal to the average profit. The selling price of firm IV will be 540 (190 profit, of which 70 average profit and 120 cartel rent). As soon as demand falls the cartel will reduce its production, and it will be possible thus to maintain prices which imply huge superprofits.

In practice things do not happen very differently from this. When the tin cartel was formed, the price of production of the mines of *average* productivity was around £100 per ton. So that the producers with the lowest productivity might realise their average profit, a selling price for tin of £190 to £230 per ton was imposed by the cartel on the

world market between 1934 and 1943. Several firms in this way made a super-profit of more than £100 per ton! [62]

The British Commission inquiring into Monopolies and Restrictive Practices published in 1957 a report on the electrical equipment industry, "organised" in the BEAMA cartel (British Electrical and Allied Manufacturers' Association), and this report contained the following passage:

"The general case put forward by the manufacturers in defence of their common price system has not convinced us that the degree of stability they aim at is in the public interest, that the dangers they fear from price competition are real, or that the standards by which they propose that their system should be judged are the right ones. We are satisfied that, after making all possible allowances for differences in costing methods, the true costs of the manufacturers who sell at common prices differ widely. Whether or not these differences in cost are due principally to variations in manufacturing methods and actual product or in manufacturing efficiency, we think that the common price system could not have been maintained unless the higher cost producers exerted considerable influence on the level of price and the lower cost producers agreed to sell at higher prices than they would otherwise be prepared to accept."[63]

The most striking example of cartel rent as a form of monopoly profit is certainly that of the *world oil cartel*. An official inquiry published in 1952 by the U.S. Department of Commerce revealed that the "Big Seven" of the oil industry (Standard Oil of New Jersey, Standard Oil of California, Socony Vacuum Oil, Gulf Oil Corp., Texas Co., Anglo-Iranian—later called British Petroleum—and Royal Dutch Shell) had over a period of years imposed common prices for the oil produced in the Western hemisphere and that produced in the Middle East, though the latter's cost of production was *four to six times lower than that of American oil.*

During the war and in 1945, the American Navy had to pay 1·05 dollars the barrel for oil the cost of production of which (including taxes and royalties payable to the local rulers) was 0·4 dollars in Saudi Arabia and 0·25 dollars in Bahrein.[64] The cartel rent was thus 65 cents per barrel produced in Saudi Arabia and 80 cents per barrel produced in Bahrein, which gives a monopoly rate of profit of nearly 200 per cent in the former case and over 400 per cent in the latter (the "cost of production" here includes, according to capitalist custom, an "average" rate of interest on the shareholders' capital).

In the post-war years these prices were raised to 2·22 dollars, then lowered to 2·03, 1·88 and 1·75 dollars per barrel, without the costs of production in the Middle East having been noticeably changed, with the sole aim of bringing prices into line with those of the American producers.[65]

Cartel rent is, however, only one form of monopoly superprofit. The formation of companies which monopolise their market completely or almost completely likewise makes possible an arbitrary raising of selling prices above the "normal" price of production. After the formation of the U.S. Steel Corporation, steel prices were raised 20–30 per cent, on the average. Rail prices were raised from 16·50 dollars a ton to 28 dollars on 1st May, 1901, and kept there until 1916.[66]

British Oxygen, which enjoys a *de facto* monopoly of the production of oxygen gas, which is indispensable for welding, has fixed its prices so as to be sure, in a good year or a bad, of a rate of profit of 23 to 25 per cent.[67]

The *American Can Company*, which, at the time of its foundation in 1901, enjoyed a practically complete monopoly (90 per cent of productive capacity), immediately raised its prices by 60 per cent.[68]

When a small number of producers is able jointly to dominate the market, a price-fixing agreement intended to ensure monopoly superprofits can easily be concluded. Thus, the disappearance of most of the independent glass-making firms in the U.S.A. enabled the four dominant companies in 1935 to increase the prices of their products by over 40 per cent.[69]

The basing point system in force in a number of American industries consists of fixing prices by adding transport costs (real or fictitious) as from one or more points of production. According to Clair Wilcox[70], this system is in operation in sixty American industries. It means that all the firms which are nearer to their customers than the basing points, or which make use of cheaper means of transport than those whose cost is included in the basing point price, get substantial monopoly superprofits.[71] In an industry like cement, where transport charges make up an important proportion of the selling price, the basing point system has made possible a stabilisation of monopoly prices to the extent that selling prices were increased in *the midst of the crisis*, first in the second half of 1932 and again in the first half of 1933.[72]

But the most widespread method of keeping up monopoly prices and profits is price leadership. "Price leadership exists when the price at which most of the units in an industry offer to sell is determined by adopting the price announced by one of their number."[73] In the American steel industry, after the "pools" of the nineteenth century and the "concerted agreements" at the beginning of the twentieth century (on the occasion of the dinners given by Judge Gary, head of the U.S. Steel Corp., dinners attended by the heads of most of the big "competing" companies), the system of "tacit agreements" was adopted: the scales published by the U.S. Steel Corporation were automatically adopted by the other firms. Burns says that "the available

data suggest that some kind of price leadership is present in many of the industries in which production is concentrated in large units."[74]

The equalisation of the monopoly rate of profit

All the same, the monopoly trusts are not able to fix their prices and superprofits in a completely arbitrary fashion, beyond a certain limit.

In the first place, an excessive raising of prices would cause demand and sales to fall and lead to a revival of competition. Thus, the three American cigarette trusts in 1931 controlled 97 per cent of U.S. production. They decided to raise their prices—in the midst of the crisis! —by 10 per cent. This led to the appearance of cigarettes at 10 cents a packet, made by independent firms. In November 1932 these firms were already responsible for 22·8 per cent of American production.[75]

Furthermore, the monopoly sectors of industry are not completely self-sufficient. They have to buy raw material or machinery, and to use means of transport which are themselves controlled by other monopoly sectors. Fierce price battles break out between such adjoining trusts. Given the mutual interdependence of the majority of the monopoly sectors, an *equalisation of the rate of profit in the monopoly sectors* takes place, at least for a certain period. This prevents an *arbitrary* raising of prices and profits.

There is an even more obvious reason for this equalisation. This is that the super-profits of the monopoly sectors are achieved at the expense of the non-monopoly sectors, whose average rate of profit they lower.

Let us assume that the total capital expended in one year is $10{,}000\,c + 2{,}500\,v$, and that 2,500 represents the total amount of surplus-value produced in society. If universal equalisation of the rate of profit occurred, the latter would come out at $\frac{2{,}500}{12{,}500}$, or 20 per cent. Let us suppose that the monopoly sectors expend every year a capital of 2,500 ($2{,}000\,c + 500\,v$), but, thanks to their high prices, obtain a profit of 1,000. The monopoly rate of profit would then be $\frac{1{,}000}{2{,}500}$, or 40 per cent. But this high monopoly profit would bring down the rate of profit in the non-monopoly sectors to $\frac{1{,}500}{10{,}000}$, or 15 per cent.

"To simplify matters, we shall assume that the economy can be divided roughly into two sectors, an *oligopolistic* one where profit margins at given utilisation [of plant] are inelastic, and a *competitive* one where the ideal pattern still works with some approximation. In the oligopolistic sector there will be a tendency for profit margins at given utilisation to rise because neither the competition within each of these industries, nor the possibility of new entry will be sufficiently strong to counteract this tendency . . . As a net result of the increase

in profit margins at given utilisation in the oligopolistic sector . . . a certain amount of profits, and a corresponding amount of internal savings, have been shifted from the competitive to the oligopolistic sector. The result is hardly surprising because it only confirms the view—acceptable probably to most economists—that oligopolistic industries have the power, by raising prices in relation to cost, to attract to themselves a greater share in the total profits, and consequently also in the total internal savings."[76]

The reason why the monopoly sectors are able to maintain such differences between the rate of profit in different sectors is that the high degree of concentration in these sectors necessitates the gathering of very substantial amounts of capital in order to be able to enter into competition with them. Furthermore, the monopoly trusts subject any potential competitor to the risk of having a furious war waged against him, with prices forced down, if need be, to ridiculous levels, even involving loss, until the competitor is forced to withdraw, after which they can always recover their losses by increasing their superprofits. This is what is called "internal dumping".*

An official report said, for example, about the British trust the Imperial Tobacco Company: " 'A business of such magnitude, commanding so extensive an influence on the retailers and possessing such large reserves, has it in its power, by foregoing its ordinary profit for a short time, to cut prices to such an extent as to place all its rivals out of business and secure the entire, or very nearly the entire, monopoly of the tobacco trade'."[78]

But all these obstacles are not insuperable. If the difference between the average rate of profit and the rate of profit in the monopoly sectors is such that the capitalists in the non-monopoly sectors find themselves faced with ruin, they will risk everything and try by every possible means to infiltrate into the monopoly sectors, either by collecting together the capital needed to organise direct competition or else by seeking new products which in their turn may benefit from monopoly prices (the cartel selling atabrine and other substitutes, in rivalry with the quinine cartel; synthetic petrol or synthetic rubber, in rivalry with the natural products; rayon against natural silk; nylon against rayon; various food products that can be substituted one for the other, etc.). These attempts bring about a revival of competition, which brings the difference between the average and monopoly rates of profit within more "reasonable" bounds.

New technical advances can similarly have the effect of breaking down *de facto* monopolies. This happens, however, less frequently in industry, where monopoly of production is accompanied by monopoly

* "Internal dumping (represents) . . . the practice of certain producers who deliberately sell below their costs of production on the national market, with the aim of ruining their competitors and ousting them."[77]

of scientific research, than in agriculture or the production of raw materials. Thus, Javanese sugar-cane production, taking advantage of a new variety of cane with a 30 per cent higher yield, shook the world sugar cartel towards the end of the 1920s.[79] Again, the discovery of the diamond fields of Lichtenburg and Namaqualand threatened the monopoly of the Diamond Syndicate.[80]

The level of monopoly super-profits can, in many cases, be worked out. During the years 1930–1933 American industry as a whole suffered an overall loss of 3 billion dollars. The Dow and Monsanto chemical trusts, however, made an annual profit of between 7·8 per cent and 14·9 per cent (the latter) and between 12·0 per cent and 9·6 per cent (the former). The average profit of the eight chemical trusts for the worst crisis year in the U.S.A., 1932, was 6·4 per cent. In 1933 it was 9·9 per cent and in 1939 9·7 per cent—two other years of crisis—and reached 15·1 per cent and 13·2 per cent in the prosperity years of 1929 and 1941. This in spite of the fact that the average profit of the 3,000 largest joint-stock companies did not exceed 6·16 per cent during the prosperity period of 1919–1928! These figures are not surprising when one knows that during the entire period of crisis the price of sulphuric acid (to take only this example) remained unaltered at 16·63 dollars a ton from 1928 to 1937! Equally remarkable were the stable profits of the three big American cigarette trusts which, for thirty years, stayed around 17·5 per cent "well above usual competitive levels".[81]

Even more striking are the data for another monopoly sector in the U.S.A., that of incandescent lamps. The General Electric trust obtained during the crisis years annual profits which were higher than 20 per cent (in 1930: 34·39 per cent in 1939: 22·83 per cent).[82]

The 200 largest companies in the U.S.A. absorbed 20·4 per cent of all company profits in 1940 and 24·7 per cent in 1955.[83]

Joe Bain[84] has calculated the average rate of profit for the period 1936–1940 in the monopoly and non-monopoly sectors of industry. Significant differences emerge between the average rates of profit in the two sectors:

Net value of firms in dollars	*No. of firms in Sector I with more than 70 per cent concentration*	*Sector II with less than 70 per cent concentration*	*Average rate of profit Sectors*	
			I	*II*
Over 50 million	23	32	10·4	6·0
10 to 50 million	37	41	9·7	5·3
5 to 10 million	19	24	17·9	8·2
1 to 5 million	33	73	6·3	8·6
0·5 to 1 million	16	14	14·9*	8·3

* The fact that the smallest firms obtained a higher rate of profit confirms the tendency of the rate of profit to fall (see Chapter 5).

Prices indices in the monopoly and non-monopoly sectors (for raw materials and semi-finished products).

	Germany (1928 = 100)		*Poland (1928 = 100)*		*Austria (1923–1931 = 100)*	
	Monopoly price	*Non-monopoly price*	*Monopoly price*	*Non-monopoly price*	*Monopoly price*	*Non-monopoly price*
1928	100	100	100	100	97	110
1929	103·6	91·2	107·5	93·6	98	100
1933	78·4	45·4	91·9	49·1	104	73
1934	78·3	54·3	87·6	49·1	105	76[85]

According to Goetz-Girey,[86] during the great crisis of 1929, profits fell in France from 100 to 68 in the cartellised industries, whereas in the others they fell from 100 to 35.

The formation of the all-European steel cartel succeeded in raising prices from 30 to 50 per cent after the summer of 1933 . . . And, to take a recent example, in 1951 the Swiss pharmaceutical products trust CIBA made a net profit of 18 million Swiss francs (equivalent to 30·4 per cent of this firm's capital). A dividend of 18 per cent was paid. The Italian chemical trust Montecatini paid in the same year a dividend of 14 per cent and realised a net profit of more than 30 per cent of its capital.

Origins of monopoly profit

The instances we have just considered are those in which the monopoly super-profit results from a raising of the selling price of the monopoly sectors above the price of production. However, monopoly super-profit also arises from *superiorities in productivity* which the monopoly trusts achieve, as compared with small and medium-sized firms and non-monopoly sectors.

These superiorities are first and foremost those of greater efficiency, due to large size. In the U.S.A. and in Britain the profit margin increased in proportion to the size of the companies:

NET MARGINS OF PROFIT ON TURNOVER, U.S.A., 1956

	%
All companies	5·2
Companies with a turnover of 1 to 5 million dollars	2·2
5 to 10 million dollars	3·3
10 to 50 million dollars	4·2
50 to 100 million dollars	5·4
100 million and over	6·8[87]

In Britain, the net output per person increased from an average of £201 for firms employing between 11 and 24 wage-earners to an average of £309 for firms employing 7,000 to 8,000. This increase is practically unbroken, in proportion to the increase in the numbers employed.[88]

The monopoly trusts also benefit from price discrimination in their

favour. An American industrialist, Mr. Tom Smith, testifying before the House of Representatives' commission of inquiry into steel prices, used a significant expression: "There is one thing that prevails in the steel industry as in many others. If General Motors wants something, it is going to be a pretty tough steel executive who is going to say 'You don't get it'."[89]

From 1929 onward the American aluminium trust ALCOA stopped its production of magnesium, which was competing with the magnesium produced by Dow Chemicals. In exchange for this concession, Dow supplied ALCOA with all the magnesium it needed, at a price 30 or 40 per cent below that paid by other purchasers. In 1931 there was a "crisis" in the relations between the two trusts, but from the middle of 1933 "good understanding" was restored: the reduction obtained by ALCOA was kept at an average of 28 per cent right down to 1942.[90]

The report published in 1957 by the British commission of inquiry into Monopolies and Restrictive Practices concluded that the chief trust making wireless valves, Mullard (an offshoot of Philips), was selling its valves at 17s. 6d. to retailers (without purchase tax) and at 3s. 6d. to companies manufacturing wireless sets! [91]

The American rubber trust Goodyear Tyre and Rubber supplied motor car tyres to the big mail-order firm Sears, Roebuck and Co. between 1926 and 1937 at prices 29 to 40 per cent less than those charged to retailers. Even allowing for the saving actually involved, and the elimination of the wholesaler's margin, the difference between these prices was of the order to 11 to 20 per cent.[92]

A particularly important role is played by the preferential transport charges, especially for railway freight, obtained by the trusts. These scales of charges were a determining factor in the formation and consolidation of the Standard Oil trust.[93] Similarly, the monopoly of transport facilities secured by trusts, such as the pipe-line monopoly which Standard Oil acquired very early in the U.S.A., the U.S. Steel's monopoly of railways in the iron-mining area, in practice compels the sellers to bow to the purchase prices dictated to them by these monopolies.*

Big firms, and especially the monopoly trusts linked with financial groups, obtain capital and credit at low cost, whereas credit charges to small and medium-sized firms are often exorbitant. An inquiry carried out in the U.S.A. showed that in 1937 the issuing of shares for an amount less than 1 million dollars in each case cost the com-

*These trusts are thus able to combine the advantages of *monopsony* (presence of one buyer only) with those of *monopoly*. Ida Tarbell tells how, after getting control of the pipe lines, Standard Oil compelled the producers of crude oil to queue up every day outside its buying offices in order to enjoy the privilege of selling their oil at prices laid down by the buyer.

panies concerned, on the average, 16·5 per cent, whereas these charges were reduced to 7·7 per cent for issues in excess of 1 million dollars. The cost of issuing debentures for these two categories was 8·8 per cent and 3·7 per cent respectively.[94]

For Britain, T. Balogh has shown[95] that the cost of issuing shares fluctuated in 1937 between 6·9 per cent, for companies with capital exceeding £150,000, 15 per cent for those with £50,000–£150,000, and over 20 per cent for those with less than £50,000.

Also to be taken into account is the support given the big firms by the army of lawyers and experts they can gather around them. This support is such that they can not only exploit patents without fear of lawsuits, but can even illegally take advantage of them, since the other party is well aware that he does not have the financial resources to risk a long court case.

The exploitation of patents themselves, and the entire patent system, have served as a means of achieving monopoly super-profits in a large number of sectors of industry. The cases of the Shoe Machinery Co. and of the Hartford Empire trust, manufacturing glass bottles, which were revealed by the Temporary National Economic Committee's inquiry in 1938–40, show that patents can be used to dominate an entire branch of industry for a quarter of a century, at exorbitant cost to consumers.

Monopolies as fetters on economic progress

Monopoly super-profits result from restricting competition. Restricting competition makes it possible to impose on the market prices which are excessive in relation to the price of production. But this mechanism can operate only to the extent that production is adapted to the "effective demand" (the real purchasing power) of the market. Monopoly capitalism consequently develops a series of restrictive techniques which amount to a regular negation of the way the capitalists behaved in the age of free competition:

1. *Deliberate restriction of production.* An up-to-date analysis of the market endeavours to establish the actual capacity to absorb goods. An error on the side of underestimation is not serious; it would only increase the monopoly profit still more. An error on the side of overestimation, however, would risk causing a collapse of prices. The monopolies do not want any increase in production to take place unless its absorption is *guaranteed*. Suppose a trust produces 100,000 units of some commodity, and that the cost of production is one dollar per unit. With a selling price of 1·5 dollars, the gross monopoly profit comes to 50,000 dollars. If, through increasing production to 120,000 one were to be obliged to cut selling prices to 1·4 dollars (only by 7 per cent!) in order to dispose of all the products, the total profit would amount to 120,000 times 40 cents, or 48,000 dollars. The sum

of 2,000 dollars would have been "lost", in comparison with the previously-existing situation.

Furthermore, a radical cut in production is the most effective weapon the trusts possess for checking a tendency for prices to fall and bringing about a recovery in prices. In May 1933 the tin cartel went so far as to restrict production to one-third of world capacity! In 1935 the copper cartel, by restricting production and allowing stocks to shrink by 35 per cent, in face of a growing demand, secured a rise in prices which exceeded 150 per cent.[96] This practice dates from the very beginning of cartels. The Rhenish brick cartel Dortmunder Verkaufsverein für Ziegelfabrikate imposed the following restrictions on production in order to keep prices stable:

1888–1894 average	92 per cent of capacity
1894–1902 average	81 per cent of capacity
1903–1909 average	46 per cent of capacity
1904–1913 average	36 per cent of capacity[97]

The restriction of production is to such a degree the basis of monopoly profits that the trusts are ready to offer big concessions to possible competitors . . . as the price of their abstaining from production! The O. & S. Corrugated Products Co., formed in 1935 in Canada with industrial plant not in excess of 28,000 dollars, received 79,500 dollars from the cartel of cardboard box producers in return for not producing anything in the subsequent two years.[98] In 1938, the world nitrogen cartel, International Nitrogen Association Ltd., undertook to pay 75 million Belgian francs to the owners of the unfinished Ressaix-Leval factory in Belgium if they would call off their project. In 1932 substantial sums had already been paid to ensure that the building of this factory was interrupted.[99] In the 1930s the German cement cartel paid 1·25 million RM every year to the Thyssensche Zementwerke at Rüdersdorf in order to prevent the latter from producing.[100]

2. *Suppression, or delay in application, of technical inventions.* Monopoly capitalism is no longer driven by the motive of competition continually to extend production. The mere existence of monopoly super-profits is to a degree determined by the constant restriction of production. The huge amount of fixed capital may, moreover, lose its value at one blow before it has been depreciated, if production technique is suddenly transformed. This is why the trusts no longer have the same interest as free-competition capitalism had in continually modernising the apparatus of production.*

* "The control of vital areas of research by monopolistic interests . . . retards the introduction of new goods and services . . . The trouble is that in many instances the misuse of research by monopolistic and cartelized groups has resulted in the restricting of production, withholding new products,

Speaking to the British Association, Sir Alexander Gibb declared in 1937: "Of course, here, as always in research, it is the case that the greater the success of research, the more immediate and drastic the effect on existing plant and equipment. That is what the rub sometimes lies . . . and many valuable inventions have been bought up by vested interests and suppressed."[102]

Among the technical inventions the application of which was held up for a long time by the trusts between 1918 and 1939 there may be mentioned the electrification of railways, the underground gasification of coal, the employment of new glass-making machinery, etc. There are more specific data regarding the suppression of technical progress in two sectors: the chemical industry and the electrical apparatus industry.

In 1936 the Monsanto Chemical and Standard Oil trusts suppressed a high-quality lubricant because it would have reduced the sale of similar products manufactured by the same firms, products which were sold in large quantities and which gave more profit, while being less effective.[103] Between 1927 and 1940 Standard Oil suppressed the manufacture of Buna synthetic rubber in the U.S.A., under an agreement made with I.G. Farben and so as not to compete with the product called Neoprene made by the DuPont trust.[104]

At the beginning of 1930, "a superior electric lamp which it is estimated will save electric light users 10,000,000 dollars a year, has been invented but has not been put on the market."[105]

Arthur A. Bright Jr. has brought together many facts to show that General Electric and Westinghouse strove for over ten years to prevent or delay the introduction of fluorescent lighting into the U.S.A.[106] So late as 1939, General Electric asked all its salesmen to refrain from stressing the fact that fluorescent lamps save lighting costs! An American Congress report[107] lists the steel-making processes which the trusts have held back from early application.

A writer so favourably disposed to the monopolies as Professor Hennipman[108] is obliged to conclude: ". . . the obstructive operation of monopoly on innovation by others, especially if resulting from causes other than its own positive achievements, undoubtedly constitutes a very grave danger to progress, a heavy debit item in its account and a severe limitation to the advantage that can be ascribed to monopoly on account of its own superior innovative ability."

This innovative ability is due, in fact, to the higher expenditure

and fencing in and blocking off new developments," declares Wendell Berge.[101] The writer quotes a statement by F. B. Jewett, chief of Bell Laboratories, regarding an agreement between his company and others: "From the standpoint of those responsible for the expenditures incurred by the Laboratories, the inevitable result (of the agreement) would be a narrowing of the field of activity and failure to undertake anything which at the outset is not clearly directed to the field of our current business."

that the big trusts can devote to research. But careful analyses have shown that whereas these monopoly trusts pay out the greater part of the money devoted to research,* they furnish only a minor share of real inventions. Their existence is thus seen to be a twofold obstacle to technological progress,† exactly as Professor Hamberg describes:

"In the modern industrial economy, particularly, the instances are legion in which giant corporations have been major innovators. Careful scrutiny would probably show, however, that in most of these cases the innovations have been non-competitive with existing products. When they have been competitive, innovations by *existing* firms, as should be expected, have followed long periods of market exploitation of the 'old' products. Given this fact (exemplified by the innovational behaviour of the electrical manufacturing, radio and television, railway locomotive and telephone industries, among others), we have the possibility of long lags between the introduction of (competitive) innovations by existing firms who have, for reasons cited above, built up strong monopoly positions. At the same time, the extreme difficulties in assembling the large amounts of capital necessary for modern industrial operations militate strongly against the easy appearance of *new* firms in the role of innovator."[111]

It is true that the tendency to suppression or delayed application of technological progress is counteracted by the need to increase the productivity of labour, rationalisation, production of relative surplus value, in face of the tendency of the average rate of profit to fall. It is precisely under monopoly conditions that this increase in productivity *without any reduction in selling price* becomes a main source of monopoly superprofits. In the copper industry of the U.S.A. only 5 per cent of production was produced in 1914 at a cost of production

* According to a report by the National Research Project in 1940, 13 American companies employed one-third of the personnel engaged in scientific research. At the end of the war the percentage rose to 40 per cent.[109]

† William H. Whyte, Jr. emphasises that the huge expenditure on research now financed by the big American companies (over 1·5 billion dollars a year, in the mid-1950s) is directed towards lines regarded as profitable *for the company itself!* Out of the 600,000 persons engaged in scientific research in the U.S.A., not more than 5,000 [!] are themselves allowed to choose their research subject; out of the total expenditure less than 4 per cent [!] is devoted to creative research which does not offer immediate prospects of profit: "Even when they want to do some small, independent research of their own, top men often have more trouble getting money for it than their colleagues would suspect. Several men who are regarded as great 'operators' —men who can raise hundreds of thousands of dollars for surveys on any conceivable subject—privately aver that the one thing they have never been able to do is get money for what they personally would like to do most of all." It is not surprising that the writer concludes: "If corporations continue to mould scientists the way they are now doing, it is entirely possible that in the long run this huge apparatus may actually slow down the rate of basic discovery it feeds on."[110]

lower than 12 cents a pound; by 1943 this percentage had already risen to 70 per cent. At the same time, production per hour of work had trebled. Yet the price of copper has remained practically unaltered: 13·3 cents a pound in 1914, 11·9 cents in 1943.[112]*

Some defenders of monopoly capitalism, such as David McCord Wright, have interpreted in their own way Schumpeter's view that innovating firms make most profits: the profits of the monopolies are due, they say, to the "revolutionary" initiative shown by the trusts. In reality, the monopoly trusts admit that they leave innovation to the "little men" and are content to exploit the results. Here is a particularly cynical declaration on this point made by Mr. Owen D. Young when he was chairman of General Electric: "Fifteen years is about the average period of probation, and during that time the inventor, the promoter and the investor, who see a great future for the invention, generally lose their shirts . . . That is why the wise capitalist keeps out of exploiting new inventions."[114]

A particularly flagrant case of *suppression* of significant technical innovations is that of the motor car designed by the firm of Tucker, just after the Second World War. This vehicle, by which it was sought to introduce the rear engine into the U.S.A. and to offer a model in which the engine could be removed *en bloc* for any repairs or replacements, was suppressed by the big trusts in order to protect their market.[115]

3. *The deterioration in the quality of goods.* We have just seen how an electricity trust deliberately lowers the quality of electric lamps, so as to ensure itself a large and more stable market. This is not an isolated instance. Thus, the appearance of big bread trusts led in the U.S.A. to a serious deterioration in the quality of this basic food product. A Government campaign to "enrich" bread by adding certain nutritive products was exploited by these trusts in order to stimulate their sales, without the needs of consumers as regards products traditionally present in bread being properly satisfied. Experiments with an "irradiated" yeast led to the same unsatisfactory results.[116] The American inquiry into the employment of drugs and chemicals in the food industry listed a number of examples of abuses committed by the chemical industry monopolies.

By a strange irony of history, the defenders of monopoly capitalism define as the fundamental characteristic of this system "free consumer choice" as between products. But it is precisely the era of monopoly

* Professor Galbraith[113] suggested that some trusts (such as the U.S. steel trusts) wait before raising their monopoly prices until a wage increase has been obtained by the trade unions, so as to blame the workers. This is only one argument among many others which refute the well-known myth of the "spiral of wages and prices" which is said to make "useless" the wage increases won by the trade unions.

that marks the end of this free choice: "Indeed, it is common knowledge that with such market imperfections competition does not guarantee that the consumer will always get his money's worth. Both anonymous manufacturers with no reputation at stake and giant combines with only ineffective competition to worry about may exploit the ignorance of consumers. Even big department stores and chain stores competing vigorously for patronage by offering recognisable bargains, or loss leaders, may at the same time exploit ignorance."[117]

Monopolies and "oligopolies"

Many academic economists refuse to accept the use of the category "monopolies" in analysing the changed structure of capitalism since the last quarter of the nineteenth century. They consider that this term cannot be used appropriately except where it is taken in its literal meaning—the absolute power of a single firm. For this reason they prefer to use the term "oligopoly" to describe the situation in a sector of industry which is dominated by a small number of firms.

Semantic discussions are idle, of course; but the alleged terminological precision of academic economic science actually conceals *inability to grasp problems of structure.* The appearance of "oligopolies" does not mean a mere change in the situation *in degree* ("a little more imperfection" in competition). It means the coming of a new era, marked by a radical echange in the behaviour of the heads of the principal firms, which brings in its train changes no less radical in internal and external policy.

An honest study of the behaviour of the big monopoly firms shows that it is *qualitatively different* from that of firms which operate under conditions of free competition: "The merging of business competitors need not go so far as complete unification, 100 per cent monopoly, to reduce competitive pressures—and yield extra profits. Power to restrict supply and raise prices need not be absolute to be worth while. It helps to ensure profits if the number of sellers is so small that each will recognise the benefits of following a live-and-let-live policy."[118]

A. A. Berle Jr., an eloquent defender of the system of "private enterprise" declares frankly in his turn: "It is simply inaccurate to present the American corporate system of 1954 as a system in which competition of great units (which does exist) produces the same results as those which used to flow from competition among thousands of small producers (which in great areas of American economics in the main does not exist)."[119]

Or, more precisely still: "The impact of many corporations—for example, General Motors or the great oil companies—goes beyond the confines of their actual ownership. For example, at a rough estimate, some three billions of dollars are invested in garages and

facilities owned by so-called 'small' businessmen who hold agency contracts from the principle automobile manufacturers. The owners are small, independent businessmen usually trading as 'corporations' but certainly not giants. They are, nominally, independent. But their policies, operations, and, in large measure, their prices, are determined by the motor company whose cars they sell. The same is true of the 'small businessman' who 'owns' a gasoline-filling station. The ability of the large corporation to make decisions and direct operations overflows the area of its ownership."[120]

Monopoly capitalism and the contradictions of capitalism

Monopoly capitalism develops to the utmost all the developmental tendencies of capitalism, and thereby all the contradictions inherent in this system. The basic contradiction, between the effective socialisation of production and private appropriation, reaches its extreme form: the effective socialisation of production is accomplished on the world scale, and leads to effective control by a few monopolies over whole peoples. It is combined with the contradiction between the *effective internationalisation* of production, through world division of labour carried to the extreme, and the retention of national frontiers and so the exacerbation of international competition. This contradiction finds its "solution", its periodical explosion, in imperialist war.

Monopoly capitalism develops to the extreme the contradiction inherent in the anarchy of capitalist production. Many socialist theoreticians greeted at the beginning of the century, and again later during the 1920s, the establishment of international cartels as the coming of a new phase of capitalism, that of "organised" capitalism. They were convinced that capitalism had thus actually overcome competition and economic nationalism, and that it constituted a period of transition to socialism through world-wide "planning" in the sphere of production.

In the *Berliner Tageblatt* of 1st October, 1926 Rudolf Hilferding hailed the formation of the European steel cartel as a "transcending" by the capitalists of Franco-German competition.[121]

Experience, however, has already proved that this was an illusion. The cartels, trusts and monopolies do not suppress capitalist competition; they merely reproduce it on a higher scale and in a more acute form:

(*a*) Competition between two trusts which are "neighbours" or occupy the same area of production. This competition may be waged by means of alliances, threats, reprisals or lawsuits, patent disputes, etc., so as to change the distribution of spheres of influence or the sharing of the market. Thus, the ALCOA aluminium trust allied itself temporarily with the German I.G. Farben in order to strike down the

monopoly which its competitor Dow Chemicals possessed in the sphere of magnesium. In the end they made an agreement with Dow.[122] Sometimes this competition between trusts operating in the same field may "degenerate" into price competition. Thus, in 1954 a "detergent war" broke out in Britain between Unilever and Procter and Gamble (Thomas Hedley), a war waged by means of price-cuts.[123]

(*b*) Competition between different vertical trusts, carried on in the form of regular economic wars (coal trusts against electric power trusts or oil trusts; oil trusts against motor car trusts; the cement cartel against the shipping trusts, etc.)*

(c) Intensified competition between the non-monopoly and monopoly sectors.

(*d*) Competition within the non-monopoly sectors, all the more violent because the superprofits of the monopolies lower the rate of profit in these sectors.

There is no better way of describing the competition between monopolies than as a permanent state of war interrupted by frequent truces. But these wars are carried on only seldom by way of price-cuts: "The endless manœuvring for leadership position between Ford and General Motors is an almost classic instance of competition within oligopoly. Somewhat the same situation prevails in the electronics field where General Electric and Westinghouse are continuously in tacit agreement and continously at war."[125]

Far from bringing about a greater stablisation of capitalism, the international cartels and trusts have reduced the flexibility of adaptation of the world economy, and caused sharper and deeper fluctuations, by imposing rigid prices for their profits without regard to the economic conjuncture.

The idea that "perfect" monopolies or cartels, at least, might be able to give greater stability to world economy has likewise proved illusory. The establishment of such "perfect" monopolies still remains inevitably limited in time, because the high superprofits they make end by attracting fresh competitive capital into the given sectors. This is what happened with aluminium in the U.S.A. during the Second World War.†

* A typical example: General Motors formerly used 75 lb. of aluminium to make a car, and even 240 lb. to make a Buick. When the ALCOA aluminium trust kept its prices too high, General Motors substituted other metals for aluminium, reducing consumption to 8 lb. per car on the eve of the Second World War. This cut down the potential aluminium consumption in the U.S.A. by nearly 100,000 tons a year![124]

† Nevertheless, even after the appearance of new and powerful competitors, ALCOA still controls nearly 80 per cent of world capitalist production, jointly with its subsidiaries and its ally ALTED. The International Nickel trust has for years controlled nearly 90 per cent of world capitalist production of nickel. But these are exceptions. The Clymax Molybdenum Company has a

"Stable" cartels are also short-lived, owing to the working of the law of *uneven development*. The cartels fix quotas for production, export, and share in the world market, in accordance with the productive capacity and productivity of the constituent firms at the moment when the cartel is formed. But these relations do not remain stable. It is enough for technical improvements, inventions, an expansion of capacity, to bring about a change in the balance of forces between these firms for the one that feels strongest in competitive power to break the agreement with a view to getting a bigger share in the division of the market.

This is what happened in the copper industry, where a cartel succeeded in raising the price in the midst of the world crisis—from 13 cents in 1927 to 18 cents in 1930. Then the cheaper copper from the mines newly opened in Rhodesia suddenly flooded the market, lowering the price to 5 cents by the end of 1932, until a new cartel was formed in May 1935 which achieved a price rise of 150 per cent. Monopoly cartels and trusts sign agreements only as so many truces in the course of an armed conflict. At the very moment when the truce is concluded, each participant is thinking only of reopening hostilities when conditions are most advantageous for him.

Monopoly capitalism does not only intensify all the classic contradictions of capitalism, however, it also adds some new ones. To the fundamental class contradiction between the proletariat and the bourgeoisie there is added, in the age of monopoly, the contradiction between the colonial and semi-colonial peoples, on the one hand, whose poverty and economic backwardness constitute the main source of superprofits for the monopolies, and the big metropolitan bourgeoisies, on the other.*

The contradiction between the effective socialisation of production and private appropriation by the bourgeoisie becomes all the more hateful because the plainly *parasitic* nature of capitalism is more and more intensified. Monopoly capitalism means the transformation of part of the bourgeois class into *rentiers* and "coupon-clippers" (large share-holders, holders of state bonds, foreign securities, etc.). The separation of the bourgeoisie into an industrial bourgeoisie and a *rentier* bourgeoisie is carried further into a separation between the actual technical managers of the production and distribution of goods and the chief suppliers of funds and financial "organisers". The function of ownership and the function of management are increasingly separated, and the monopoly bourgeoisie thus represents the purest type of bourgeoisie, *that for which the appropriation of surplus value*

complete monopoly of molybdenum production in the U.S.A. and controls 84 per cent of world productive capacity. Between 1934 and 1939 the annual rate of net profit for this trust was 93 per cent.[126]

* See Chapter 13.

is no longer masked in any way by payment for a managerial task in the production process, but plainly appears as the exclusive result of private ownership of the means of production.

Capitalism as a mode of production finds its historical justification in the prodigious development of the productive forces which it sets in motion. This development is interrupted only temporarily by periodic crises, through which production adapts itself to need and to possibilities of consumption which are socially determined, that is, limited.

Monopoly capitalism, capitalism of the age of artificial restriction of production, share-out of markets, division of the whole world conquered by capital, considerably limits the development of the forces of production. Tendencies to waste get the upper hand of tendencies to save. The capitalist ceases to be revolutionary in the field of expanding production, and becomes conservative. Crises becomes longer and more frequent, from the beginning of the twentieth century. Monopoly capitalism becomes more and more a fetter on the development of the productive forces.* Henceforward its parasitic character explodes in the world's face in a new epoch of history, filled with convulsions: the age of capitalist decline, the age of war, revolutions and counter-revolutions.

* Which does not mean that world production, or even that of the leading countries, sinks into stagnation; but it falls ever further short of the possibilities offered by modern technique.

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CHAPTER THIRTEEN

IMPERIALISM

Capitalism and inequality among nations

BORN in Western Europe, industrial capitalism spread in the course of a century over the entire world. But this expansion assumed a very special form: all the countries in the world became outlets, sources of raw material and, to a smaller extent, fields of investment for capital. But the *capitalist mode of production*, and in particular the large capitalist factory, touched only the periphery of the economic life of three continents. This is, briefly, the cause of the phenomenon which is today known, shamefacedly, by the euphemism of "under-development".

While capitalism has spread all over the world, the greater part of the world has experienced only its disintegrating effects, without benefiting from its creative side. Indeed, the unlimited industrial advance of the Western world has been possible only *at the expense* of the so-called under-developed world, which has been doomed to stagnation and regression. Three-quarters of a century after the start of the imperialist era, the United Nations have been compelled to recognise that, despite all the plans for aid to the under-developed countries, *the rich countries are becoming richer whereas the poor ones are becoming poorer.*[1]

The present division of the world between industrialised nations and under-developed nations is not the result of an inescapable whim of nature, of an unequal distribution of natural resources, or of a comparatively large and small density of population as between this country and that. It is true that capitalist industry was established in the first place near substantial deposits of coal. But, while there is plenty of coal in England, Belgium, the Ruhr, the North and East of France—areas which were rapidly industrialised at the beginning of the nineteenth century—immense quantities of coal are also to be found, in easily workable conditions, in the Donbas, the Urals, Manchuria, India and South Africa, where industrialisation only began a century later, and in some cases has still not begun.*

Though the discovery of oilfields changed the economic history of

* The two countries with the largest shares of the world's iron ore resources are both under-developed countries: India with 21 per cent of the total, Brazil with 15 per cent.

the United States, even bigger oilfields existed at the same time in the Middle East, the Sahara and Libya, which did not begin to be developed until much later and then on a relatively modest scale.

In order to refute the view that the degree of economic development or industrialisation depends on the density of population, it is enough to recall that areas so highly industrialised as Germany, the Netherlands or Belgium have today, and had already at the beginning of the nineteenth century, a density of population much greater than is found in countries such as Spain, Portugal, Turkey or Brazil. India and Japan were both under-developed countries in 1850. The country which became industrialised the sooner was also the one with the higher density of population.

In reality, the division of the world into "rich" and "poor" nations can be explained only by historical and social reasons, and to a large extent *by the history of capitalism itself.*

True, as we have shown above,* the prehistory of capitalism, the extent of accumulation of commercial capital, the degree of penetration of money economy into agriculture, the totality of socio-economic conditions favourable or unfavourable for the application of scientific techniques to production, determined to a large extent the birth of industrial capitalism in Western Europe, and held back the same process in India, China, Japan, Java and other essentially agricultural civilisations.

Nevertheless, this backwardness was not very marked in the middle of the eighteenth century, and above all was not insuperable. If it had become so a century later, the catastrophic aspect of under-development was due first and foremost to the particular way, that is, a violent and plundering way, in which contact was made between these two worlds.†

* See Chapter 4, section: "Special features of capitalist development in Western Europe."

† Here is a striking opinion, from Helen B. Lamb, of the Massachusetts Institute of Technology: "By the eighteenth century India had attained a high degree of development in pre-industrial terms. Agriculture was sufficiently developed to support a relatively large number of non-agricultural workers; there were highly skilled craftsmen in iron, steel, textiles, shipbuilding and metalwork. India produced manufactured goods not only for home consumption but for export. India's economic wealth had for centuries been controlled by merchant bankers and princes who siphoned off the surplus of production over consumption in the form of idle hoards of gold and silver bullion; hence this wealth was sufficiently concentrated to represent a potential source of investment funds. India's resources of good quality coal and iron were located in convenient proximity to each other . . .

"Why did not this combination of apparently propitious circumstances produce a type of economic development capable of generating real momentum? Despite the many complexities and anomalies of the situation,

In the decisive formative period of the capitalist mode of production, extending from the sixteenth to the end of the eighteenth century, the creation of the world market was of crucial importance. Its main results for the primitive accumulation of capital in Western Europe have been examined above. But all through this period of the birth of capitalism the two forms of surplus-value appeared at each step. On the one hand, it was the outcome of the surplus labour of the wage workers hired by the capitalists; on the other, it was the outcome of values stolen, plundered, seized by tricks, pressure or violence from the overseas peoples with whom the western world had made contact. From the conquest and pillage of Mexico and Peru by the Spaniards to the sacking of Indonesia by the Portuguese and the Dutch and the ferocious exploitation of India by the British, the history of the sixteenth and eighteenth centuries is an unbroken chain of deeds of brigandage which were so many *acts of international concentration of values and capital in Western Europe*, the enrichment of which was paid for, in the literal sense of the word, by the impoverishment of the plundered areas.

It can be stated unhesitatingly that the contribution made by this stolen capital was decisive for the accumulation of the commercial capital and money capital which, between 1500 and 1750, created the conditions which proved propitious for the industrial revolution. It is difficult to calculate the total amount involved, but if one takes into account only the most substantial contributions these add up to a staggering sum.

Hamilton estimates at over 500 million gold pesos the total amount of gold and silver exported from Latin America between 1503 and 1660.[3] According to Colenbrander,[4] the total value of the dividends, officials' remittances and cargoes of spices taken out of Indonesia by the Dutch East India Company amounted to 600 million gold florins for the period 1650–1780. On the basis of the calculations made by Father Rinchon, we know that profits from the slave trade amounted in eighteenth-century France to nearly half a billion *livres tournois* (without including the profit arising from the work done by the slaves, which came to several billion *livres*).[5] The profits obtained from the labour of the negroes in the British West Indies amounted to £200 to £300 million.[6]

Finally, even if estimates differ markedly on this point, it is not an exaggeration (see the work of a high colonial official, a firm defender of the Empire, Sir Percival Griffiths: *The British Impact on India*)[7] to estimate at £100 to £150 million the outcome of the British plundering of India between 1750 and 1800.

basically the answer is simple. The colonial relationship subordinated India to British political and economic interests; it stimulated Indian economic development in some ways and inhibited it in others."[2]

The total amount comes to over a billion pounds sterling, or more than the capital of all the industrial enterprises operated by steam which existed in Europe around 1800! *

We do not allege that all this wealth went directly to nourishing European industry. A large share of it did nourish this industry indirectly, through the luxury expenditure of the rich, whether new or old, through State expenditure financed by public loans and paid for out of colonial revenues. But the historical connections between this influx of capital into Europe and the conditions favouring the industrial revolution are undeniably direct.

Father Rinchon remarks regarding the enrichment of France in the eighteenth century: "The growth in colonial establishments, the progress in trade and transport, and rise in power, wealth and reputation of the metropolitan country, all these resulted from the slave trade. France's external trade in the eighteenth century enjoyed a favourable balance of several million *livres*, and this was due to the export of colonial products which were the fruit of slave labour."[9]

G. Martin[10] observes, even more precisely: "Every port to which the slave-ships returned saw the rise of manufactures in the eighteenth century—refineries, cottons, dyeworks, sweet-making—in increasing numbers which testified to the advance of business and industry. In Nantes, for instance, there were founded in the course of the eighteenth century 15 refineries, 5 cotton manufacturers . . . , two big dyeworks, two sweet-making establishments . . . Industries created, private fortunes increased, the public wealth of the cities transformed, the flowering of a new class—the big merchants eager to play a part in public affairs—these are the essential features with which the slave trade marked the evolution of France in the eighteenth century."

And Brooks Adams defines the direct relationship between the plundering of India by the East India Company, after the battle of Plassey, and the beginning of the industrial revolution: [11] "Very soon after Plassey the Bengal plunder began to arrive in London, and the effect appears to have been instantaneous, for all authorities agree that the 'industrial revolution', the event which has divided the nineteenth century from all antecedent time, began with the year 1760 (the battle of Plassey occurred in 1757) . . . At once, in 1759, the bank (of England) issued £10 and £15 notes (for the first time)."

The writer recalls that Burke estimated at £40 million the British extortions in India between 1757 and 1780. H. V. Wiseman estimates that between 1770 and 1780 the labour of slaves in the West Indies brought another £40 million to Britain.[12] Around 1770 the value added annually (wages plus profits) in the whole of British industry was put

* About 1770 the British national income was only £125 million. The whole of Britain's modern metallurgical industry (including steel) about 1790 had cost only an investment of £650,000.[8]

at only £24·5 million in the well-known writings of Arthur Young (*Political Arithmetic*, etc.). It can be concluded without exaggeration that for the period 1760–1780 the profits from India and the West Indies alone *more than doubled* the accumulation of money available for rising industry.

Thus, even before industrial capitalism had developed in England, the exploitation, whether casual or systematic, of overseas countries was one of the chief sources of Europe's wealth. And the chief victims of primitive accumulation were, more than the yeomen driven from their farms by sheepraising or the journeymen of the crafts left without work in the towns and forced to work for a miserable pittance in poor-relief workshops, the *indios* condemned to *mita* (forced labour), the Bantu sold as slaves, the wretched inhabitants of the Hongy Islands, exterminated by the expeditions of the Dutch East India Company,* the people of the decadent Mogul Empire, pitilessly plundered by the agents of the British East India Company. It was this systematic plundering of four continents, during the commercial expansion of the sixteenth to eighteenth centuries, that created the conditions for the decisive lead acquired by Europe from the industrial revolution onward.

The world market and industrial capitalism

With the industrial revolution and the *production* of a steadily growing amount of surplus value by the proletariat of Western Europe, the direct plundering of overseas countries became only a secondary source of enrichment for the bourgeois classes of the West. Without disappearing completely, it no longer played more than a supplementary role in Europe's accumulation of capital. At most it made possible the quick entry into the bourgeois class of adventurers who rapidly became rich at the expense of the "lower races".

But the relations between the West and the already under-developed countries did not thereby become humane and equal. Plundering was followed by trade; but the latter's effects were often to be more damaging even than those of wars of conquest†

The link between the two forms of exploitation, the violent form by way of direct seizure and the "peaceful" form by way of exchange on an unequal footing, is particularly clear in the case of India. In the provinces of Bengal, Bihar and Orissa, the East India Company had acquired exemption from all transit tolls or export dues for its own international trade. But its employees soon began to apply this exemp-

* See Chapter 4, section, "The commercial revolution."

† In *Bankers and Pashas*, David S. Landes draws a dreadful picture of the plundering of the Egyptian treasury under Mehemet Ali, Said and Ismail (1830–1860). The "scum of Mediterranean society" gathered in Alexandria to plunder retail while international finance plundered wholesale.[13]

tion, illegally, to internal trade, within these provinces, where the Indian merchants were subjected to heavy taxation: "The company's agents, whose goods were transported quite free of duty, whereas other merchants' goods were heavily burdened, quickly concentrated in their hands the whole of the country's trade, thereby drying up one of the sources of public revenue."[14]

These same Company employees had, moreover, a way of their own of carrying on trade, as emerges from the complaint by one of the Nawab of Bengal's administrators, quoted by H. Verelst in *A View of the Rise of English Government in Bengal* (1772): "They forcibly seize the belongings and goods of the peasants, traders, and others, at a quarter of their value, and by means of violence and oppression they make them pay five rupees for goods that are worth no more than one."*

But the trade of this transitional period was essentially an *import trade*, into Europe, of rare Eastern products (precious stones, spices, delicate fabrics, etc.), and therefore a luxury trade. With the industrial revolution East-West trade changed in kind. Western Europe now *exported* manufactured goods instead of exporting precious metals as means of payment. The East was now drained of its precious resources, since its balance of payment with the West was chronically on the wrong side.

Young capitalist industry—above all the British textile industry—was not immediately able to acquire dominance through the cheapness of its products. Though the beginning of the industrial revolution is to be placed around 1760, another half century passed during which India and China continued to be the world's chief providers of textile products. As late at 1815 India was exporting £1·3 million worth of cotton goods to Britain, while Indian imports of British cottons amounted to only £26,000. China exported in 1819 nearly 3·5 million pieces of cotton goods,[16] while its imports were infinitesimal. Like "calico", "nankeen" was known and in demand throughout the world.

British industry succeeded in dominating the world market only by carrying on an extreme protectionist policy.

In 1813 Indian cotton and silk goods were 50 to 60 per cent cheaper than British; therefore they were subjected for a long period to an import duty of 70 to 80 per cent, after all importation of Indian cottons had several times been prohibited altogether, notably in 1700 and 1720. At the same time as Britain was following this extreme protectionist policy, it *imposed*, through the East India Company, the free-trade policy upon India (it did the same to China later, through the

* "Our business is to make money, as much and as fast as we can; and for this end, all modes or means are good which the law permits," wrote a British trader in Shanghai to his consul.[15]

Opium Wars). At a time when Indian silk goods were paying 20 per cent import duty in Britain, British silk goods were paying only 3·5 per cent in India! Only about 1830, when the superiority of large-scale industry was firmly established, were the British industrialists able to allow themselves the luxury of propagating free trade on the world scale, beginning with Britain itself.

Thus, the conquest of the world market by capitalist industry did not take place by economic means alone. Political and military pressure and force played an important, if not decisive, role. It was the conditions of political inequality, the unequal treaties imposed by Britain on India and China, that enabled Britain to conquer the world market and obtain a monopoly of productivity. Once this conquest had been achieved, the proclamation of the universal dogma of free trade, now imposed by force on yesterday's victims, was to become the essential weapon wielded by Britain (and to some degree also by France, Belgium, the Netherlands, etc.) to *destroy* existing industry in the Asian countries and delay their industrialisation for half a century.*

Between 1815 and 1850 British cotton goods conquered India: that country absorbed in 1850 25 per cent of all Lancashire's exports. But during the same period the Indian craftsman defeated in this competitive struggle found no place for himself in industry. The impoverishment of the country, drained of its reserves of money capital, together with the superiority now achieved by European industry, did not permit an unprotected Indian industry to enter into competition. The free trade relationship between the metropolitan country and the dependency frustrated the modest moves made in this direction.

Age-old industrial centres died. Dacca was partly overgrown with jungle. The craftsmen, reduced to idleness, spilt over into agriculture. The vicious circle closed when, after 1833, Britain decided to develop on a large scale in India the production of agricultural raw materials, especially cotton plantations. A people who formerly had exported cotton goods to all parts of the world now exported only raw cotton, to be worked up in Britain and sent back to India as textile goods!

It is thus not ethnological, demographic, geographical or religious (ideological) conditions that account for the economic under-development of India. This results from the fact that capitalism entered this country under conditions of imperialist domination, which transformed India from a producer of manufactured goods into a producer of agricultural raw materials.

* In Egypt the same results were secured by the obligatory reduction of Mehemet Ali's forces in 1841, and by the Anglo-Turkish trade agreement of 1838.[17]

From the export of goods to the export of capital

As capitalist groupings replaced free competition, a *surplus of capital* manifested itself in the industrial countries of Europe—the first phenomenon of the kind since the beginning of the industrial revolution. The capitalist syndicates, trusts and monopolies implied, as a matter of fact, a certain restriction on investment. But the capitalists could not consume unproductively the greater part of their surplus value; only capitalisation of this surplus value would constitute a real gain. They therefore sought fields for investment in other sectors: the age of monopoly is also the age of companies which spread their interests over many sectors of activity. The more this tendency became general, the more fields for capital investment shrank in Britain and all over Western Europe. Alfred Marshall and Wicksell noted this, and explained the great depression of 1873–1896 by this shrinkage.[18]

It was at that moment, and under the pressure of this more or less chronic surplus of capital that the capitalists sought an outlet in the non-industrialised countries, either the "empty" countries of the British Empire (Canada, South Africa, Australia, New Zealand), or the colonial countries in the strict sense (especially in Africa and Asia), or the semi-colonial countries which, while formally independent, became transformed into economic dependencies of the imperialist countries (notably the countries of Latin America and those of Eastern Europe).

"The practice of foreign investment, the banking side of which was concentrated in a relatively few hands in London, much of it among men who specialised in the business and did not concern themselves with home investment, had become established by 1870. Well over half of the loans at that time were in the form of European and United States government bonds, although railways and other enterprises took a large share. The 1870s brought disappointment to the investor and he began to turn elsewhere. North and South America and the countries of the Empire, particularly Australia and South Africa, were heavy borrowers between 1880 and 1900, the share of the Empire distinctly rising. After the beginning of the present century, Canada replaced Australia as the leading Empire borrower . . . The total of foreign investments . . . had arisen from about £800 million in 1871 to about £3,500 million in 1913."[19]

This tendency towards the export of capital was strongly stimulated by an extraordinary *revolution in the means of international communication*, which occurred at the same period. "The economic history of the period 1860–1878 is characterised above all by an unprecedented spring forward in the development of all kinds of communications," wrote Henri Hauser.[20] This powerful synchronisation of steam navigation (it was between 1875 and 1885 that steamships began to exceed sailing ships in tonnage), telegraphy, and improved railways, in

America, India, China and Africa, really unified the world market for the first time.

Whereas previously only the great financial and commercial centres, the ports and entrepots, depended on each other, now the bulk of production, even agricultural production, in even the most backward countries was drawn into the vortex of trade and world-wide speculation. Having the power to keep check from afar on the state of business and the size of the harvest, or to move in a few days from one point on the globe to another, in order, when necessary, to take charge of their staffs appointed to direct the workers, or to bring pressure to bear on a recalcitrant ruler, the capitalists were now able to risk investing their capital in the most distant parts of the world. Capital became international, and the world was made one quite literally.

The export of capital thus corresponds to a fundamental law of the development of capital: the increase in its organic composition, the tendency of the average rate of profit to fall, resisted on the one hand, by alliances between capitalists in the metropolitan countries, and compensated, on the other, by the investing in colonial countries of the surplus capital thus released, since in those countries the average organic composition of capital was lower and, above all, the rate of surplus value was much higher.

But the expansion in the export of capital did not mean at all that the export of goods became of secondary importance and no longer played its part as the safety value of capitalist production. On the contrary: the export of capital to the backward countries went hand in hand with the export of goods, and the former helped the latter.

Jules Ferry, the great promoter of Fench colonial expansion in this period, states this fact plainly in his book *Le Tonkin et la mère-patrie* (Tongking and the Mother Country). "Europe can be regarded as a business firm which, over a certain number of years, has seen its turnover declining. Europe's consumption of goods is saturated; we must find ourselves new strata of consumers in other parts of the world if contemporary society is not to go bankrupt and prepare, for the dawn of the twentieth century, a social liquidation through cataclysms the consequences of which would be beyond calculation."

And, in another place, more cynically: "The nations of Europe have long since realised that the conquest of China, of its 400 millions of consumers, must be undertaken exclusively by and for the producers of Europe."[21]

The exports of capital carried out by way of investment loans to governments, municipalities or private firms in foreign countries usually stipulate, or imply, that the recipients of these loans are to buy the capital goods they need in the creditor countries. In such cases the "export" of capital is often merely a manner of speaking—in fact,

the loan obtained in London is spent in Birmingham. It will be understood that, this being what happened, the export of capital frequently played, between 1875 and 1913 the same role of support for business prosperity or of economic stimulant as has been played since 1929 by public expenditure:

"In the short period . . . an increase in activity abroad, generally associated with an increase in foreign investment by Britain, pulled the country out of pre-1914 slumps by improving the prospects of the export industries. If the investment was on the Continent, the textile industries gained; if in America or the Colonies, the metal industries expanded."[22]

Even if the obligation to obtain supplies in the creditor countries is not formally laid down, the establishment of close financial ties between borrower and lender favours the development of trade in goods between the two countries.

The export of capital carried out by the founding of branches or sister-companies in foreign lands by large metropolitan countries similarly involves, as a rule, the reinforcement of commercial exchanges between the creditor and debtor countries, since the companies of metropolitan origin generally import from the home country both their capital goods and also the consumer goods needed by their managerial staffs, by the colonial administrators, and so on.

Soon, France, Germany, the Netherlands, Belgium, Switzerland, Sweden, Portugal, and later the U.S.A. and Japan, followed Britain's lead in the export of capital. The following table gives a general idea of the evolution of overseas private investment by different countries, though the figures are only rough approximations.

(In billions of gold francs of 1913): £1 = 5 dollars = 20 RM = 25 francs.

	Britain	*France*	*Germany*	*U.S.A.*	*Netherlands*	*Belgium*	*Switzerland*	*Japan*
1862	3·6	—	—	—	—	—	—	—
1870	20	10 (1869)	—	—	—	—	—	—
1885	30	15 (1880)	6·5	—	± 4·5 (1880)			—
1902	62	30	12·5	3·0 (1900)	—	—	—	—
1914	87	40	30	15	10	7	7	1
1930	90	20	5–6	75	18	4	9	4·5
1938	85	15	—	48	22	7	6	9
1948	40	3	—	69	10	4	8	—
1957	46	6	2	120	11	6	12·5	—
1960	60	?	4	150	12	8	14	1

Colonialism

Capitalist expansion into the most backward parts of the world thus made possible the realisation of the basic tendency of the capitalist mode of production: the constant enlarging of its bases, the condition indispensable both for realising surplus value and for capitalising it. But this expansion, itself the result of considerable changes in the

conditions under which capital was produced and invested, brought in its train no less considerable changes in the economic and international policies of the bourgeois states of the West.

The bourgeoisie of the free competition period had the "Manchester" outlook, strongly for free trade and against colonialism. All increase in public expenditure was regarded as waste by the industrial bourgeoisie, still greedy for new capital in order to be able to expand the framework of production. Exports no longer needed to be protected, as in the days of mercantilism, but cut their own path triumphantly across the world, thanks to the invincible weapon of ever lower costs of production and selling prices. The monopoly of productivity acquired by Britain, and to a smaller degree by all the industrial countries of Western Europe, was more powerful than any state monopoly. Periodic demonstrations such as the Opium War with China, or the sending of a few gunboats up a main river, were enough to break down the barrier, should the free circulation of goods find itself hindered anywhere in the world.*

Condliffe observes: "As the political influence of the merchants and manufacturers grew, so did their resistance to ambitious foreign policies, to military and naval expenditures, and to colonial expansion. As early as 1793, Bentham had written his tract, *Emancipate Your Colonies*. The liberal free traders accepted this attitude and became known as 'Little Englanders'."[23]

An historian shows that, a few decades later, the Conservatives, including Disraeli, shared this view:

"Coming on top of free trade, which was a declaration of independence by the mother country against the colonies, the concession of responsible government was inspired by the belief that the colonies were of little if any use to the mother country and sooner or later were bound to become independent nations . . . Liberals and Conservatives alike looked forward to the dissolution of the empire with a complacency tinged by an impatience that tended to grow with the years. 'These wretched colonies will all be independent in a few years, and are a millstone round our necks.' So said Disraeli in 1852, and he had a genius for catching the spirit of the age . . . Therefore it is not surprising that during the sixties the British government proceeded to withdraw imperial troops from the colonies. Liberals began the move in 1862. Conservatives continued it, and Liberals pushed it to a conclusion in 1871, the year in which Bismarck created the German Empire."[24]

But this outlook quickly changed with the coming of the age of

* However, economists in the countries which were at that time industrially backward, such as the German List and the Indian Ranive, did not accept the free trade doctrine. The industrialisation of their countries demanded, indeed, a policy of protection.

monopoly. The monopoly bourgeoisie was no longer greedy for fresh capital, but for super-profits, and found at its disposal an excess of capital seeking new fields for investment. It no longer possessed a monopoly of productivity guaranteeing the "peaceful" conquest of world markets; it found itself increasingly confronted with foreign competitors who produced under conditions of productivity which were the same or even better. The export of capital to distant countries implies a different attitude to colonialism to that implicit in the export of goods. The risk involved is no longer strictly limited in time; it is a matter no longer of ensuring merely one single payment, but of ensuring an *uninterrupted* flow of dividend, interest and depreciation payments.

Loans to foreign countries are tied up in mining, industrial or harbour installations, or in plantations which have to be protected against the "ignorant", "lazy", "fanatical" or "xenophobic" mass of "natives". The age of monopoly capitalism thus rapidly becomes the age of the revival of colonialism. Grabbing foreign lands and closing them to foreign competition as markets for finished products, sources of raw material and cheap labour, or fields for capital investment, that is, as sources of super-profits: this is what becomes the central theme of the foreign policy of the capitalist countries from the 1880s onward:

"In trying to prove the material advantage of the (colonial) connection, they (the imperialists) stressed the value of the colonies chiefly as a market for British emigration . . . Calculations of the balance between profit and loss were also affected by the fact that Britain was ceasing to be the only important industrial country and was beginning to feel the pressure of foreign competition. This suggested that colonial markets might, after all, become indispensable for the welfare of the parent state."[25]

Free trade and the doctrine of the free circulation of goods and capital were thus routed at the very moment when this circulation had reached its highest point, through a universal system of convertible currencies. Monopoly capitalism has to protect its own internal markets from invasion by foreign goods; the basis of monopoly super-profits must be defended. It has at the same time to safeguard the monopoly of its colonial markets from invasion by foreign capital and foreign goods, for this is the basis of its colonial super-profits. The policy of free trade was first called in question in relation to agricultural products, when competition from cheap agricultural products from overseas began to be felt. Gradually, protectionism spread to industry as well.

The age of imperialist advance (1875–1914) was marked by the existence of a large number of new fields for capital investment, and then later by the increasingly complete partition of these fields among

the imperialist powers. This at first made possible a comparatively peaceful expansion of European capitalism (peaceful, that is, as regards relations between European powers, though violent as regards relations between imperialist and colonised countries).

Britain secured the lion's share in this division of the world, thanks to its industrial and financial superiority, which had not yet been undermined. It dominated India, Burma, Malaya, and a series of stepping stones along the route to India; it occupied half of Africa, from Port Said to the Cape; it extended its rule over half the islands in the Pacific, while retaining its old colonies in North and South America and in Australia and New Zealand.

France carved itself out an empire in North Africa and in West and Equatorial Africa, it seized Madagascar, Vietnam and some of the Pacific islands. Belgium grabbed the huge empire of the Congo. The Netherlands consolidated its rule over Indonesia and the old Dutch colonies in the West Indies. Germany got a few titbits in West and East Africa, in Asia and Oceania. Russia spread its power eastward and southward in Siberia. Japan expanded beyond its archipelago, seized islands such as Formosa and positions on the continent of Asia (Port Arthur, Korea). The U.S.A. tore from the Spaniards bits and pieces of their old empire: Cuba, Puerto-Rico, Hawaii. Italy obtained some colonies in Africa.

From the beginning of the twentieth century, the entire world, apart from Antarctica, can be regarded as having been divided up, even though a few "independent" countries remained in Africa and Asia (Liberia, Abyssinia, Turkey, Afghanistan, Persia and China). All these countries were in fact divided into spheres of influence of the various great powers. Accordingly, it was no longer the sharing-out of "free" zones that was the object of inter-imperialist conflicts, but the redistribution of empires and spheres of influence. These conflicts quickly became sharper: an Anglo-French clash over power in the Sudan and on the Nile; a clash between France and Germany in Equatorial Africa and Morocco; between Britain and Russia in Persia and Afghanistan; a Russo-Japanese conflict over the partition of Manchuria, which led to the war of 1904–05; an Anglo-German struggle over Turkey and the Arab countries of the Middle East; a struggle between Russia and Austria-Hungary over the Balkans. The two last-mentioned conflicts eventually set fire to the gunpowder in 1914. Imperialism, the policy of international economic expansion of monopoly capitalism, leads to imperialist wars.

Colonial super-profits

The export of capital and the colonialism associated with it are monopoly capital's reaction to the fall in the average rate of profit in highly industrialised metropolitan countries, and to the reduction

in profitable fields for investment of capital in these countries. In this sense they are only the expression at a particular moment in history of a general characteristic of the capitalist mode of production, of the way it grows and spreads: *capital moves towards spheres in which the rate of profit expected is higher than the average.* Colonial super-profits are thus to be defined as profits higher than the average profits obtained by capital in the metropolitan country.

Here is a comparison covering recent years of the rates of profit (ratio between net profits and book value, i.e. capital plus reserves) of the Belgian companies operating in Belgium and those operating in the Congo and in Ruanda-Urundi: [26]

	1951	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*
	%	%	%	%	%	%	%
Belgian companies	8·6	9·4	7·6	7·2	8·2	9·4	9·5
Congolese companies	21·7	24·3	20·6	19·3	18·5	20·1	21·0

Taking 120 British companies with capital invested abroad, J. F. Rippy[27] records that they realised profits equal to *twice the amount of their capital* during their five most prosperous years alone.

H. J. Dernburg[28] has compiled the following table of ratios between the profits of American companies and their book value:

	Companies operating in under-developed countries	*Companies operating in the U.S.A.*
	%	%
1945	11·5	7·5
1946	13·4	9·1
1947	18·1	12·0
1948	19·8	13·8

Paul A. Baran[29] records the following dividends paid in the Netherlands by companies operating:

	In the Netherlands	*In Indonesia*
	%	%
1922	4·8	10·0
1923	4·2	15·7
1924	4·5	22·7
1937	4·5	10·3
Average for 1922–37	3·975	12·7

Finally, the secretariat of the International Metalworkers' Federation prepared for the conference on steel held in Vienna between 19th and 21st March, 1959 a study of "the largest steel-making companies in the free world" which contains this significant table: [30]

National average for 1957 of profitability, i.e. net profits plus depreciation, in percentage of turnover, of the large steel-making companies.

	%		%		%
Saar	7·4	France	11·2	India	14·7
West Germany	7·4	Luxembourg	11·3	Mexico	20·1
Japan	9·6	U.S.A.	12·4	Chile	20·5
Britain	9·8	Austria	±13·0	South Africa	28·8
Italy	10·5	Australia	13·6	Brazil	48·4
Belgium	11·2	Canada	15·0		

Here is another example of the size of these colonial super-profits: the big Royal Dutch oil trust published in 1950 an expensively-produced book to commemorate the sixtieth anniversary of its foundation. On that occasion it calculated that a shareholder who had bought just one share in 1890 and who had used part of the income arising from this share to buy newly-issued shares (subscription being preferentially reserved to existing shareholders) would have owned in 1950 406 shares with a stock-exchange value of 2,800 florins each, or 1,136,000 florins (nearly $300,000) in all. He would have had to pay out only 400,000 florins to acquire this property, and he could easily have found this sum of 400,000 florins out of the total amount of dividend received during these sixty years, which came to not less than 1·8 million florins ($480,000). The single share bought for 1,000 florins in 1890 would thus have brought him an annual income reaching 30,000 florins, so that he could have lived in comfort on the income from that share alone while at the same time accumulating a fortune of more than a quarter of a million dollars.

This is not surprising when one realises that the dividends paid by this colonial trust amounted at the start to 70 per cent [a year!], then wavered between 40 and 50 per cent, stayed around 25 per cent between 1920 and 1930, and "fell" on the eve of the Second World War to 16 to 17 per cent—all this without taking into account the very numerous "bonus" issues.[31]

Colonial super-profit is a function of an organic composition of capital which is lower and a rate of surplus value which is higher than in the highly-industrialised metropolitan countries. The lower organic composition of capital reflects above all the feeble development of manufacturing industry, the predominance of mining, plantations and in general of forms of production which require relatively little plant. The higher rate of surplus value reflects the very low level of wages, the long working day, the persistence of the exploitation of the labour of women and children, the absence or non-application of social legislation, the wide-spread use of forced labour or labour paid in kind, in brief the continued existence, in colonial and semi-colonial economy, of the features of *super-exploitation* which were found in the European economy in the eighteenth and nineteenth centuries.

The economy of Northern Rhodesia offers a striking instance of the high rate of surplus value. According to UNO statistics, the *total* amount paid out in wages (to black workers and white) in 1952 was around 33 million dollars, whereas the gross profits of the companies came to nearly 160 million dollars. Such a rate of surplus value, over 400 per cent, existed in Europe only in the age of usurer's, merchant's or commercial capital.

The high profits of colonial companies are often the combined result of colonial super-profits and monopoly super-profits (monopoly rent, cartel rent, etc.). This is in particular true of the super-profits made by the oil companies in the Middle East and in Latin America.

It is, however, more than anything else the extremely low wages of the workers in the colonies that underlie colonial super-profits. This low wage level becomes apparent when one compares the earnings of the colonial labour-force with those of the European workers in the same countries, or with the average earnings of the wage workers of the industrially advanced countries.

Thus, in *India*, an hourly wage of 9·4 to 12 American cents was recorded in 1947–48 in the textile industry, as compared with 104 to 106 American cents in the same branch in the U.S.A.[32] In *Indonesia*, the *daily* wage in the textile industry in the island of Java was 6 to 13 cents in 1939, while the seasonal workers in the sugar industry made 11 cents a day.[33] This figure can be compared with the average daily wage in all occupations (excluding mines) in the Netherlands in 1938, which was 1·75 dollars. In the Brazilian textile industry hourly wages amounted in 1950 to 29·25 American cents, i.e. one-fifth of the wages paid in the U.S.A.

In Africa the situation is especially edifying. At the regional conference of the I.C.F.T.U., held at Accra 14th–19th January, 1957, the following daily wage-rates were reported for unskilled workers (in U.S. dollars):

Basutoland	0·28
Belgian Congo	0·80
British Somaliland	0·40
French Somaliland	0·80
Gold Coast	0·50
Gambia	0·50
Kenya	0·50
Nigeria	0·70
Nyasaland	0·22
Sierra Leone	0·56
Uganda	0·40
Tunisia	2·00

These were average wages paid at different dates during the period 1953- 56, and determined by different, and therefore not strictly com-

parable, methods. Nevertheless, these rates provide us with a useful element for making comparisons, especially if we compare them with the average wage in the Netherlands, one of the lowest in Western Europe, which is 3·50 dollars (social benefits included), not to mention that in the U.S.A., which is 10 dollars.

George Padmore *(Africa, Britain's Third Empire)* estimates that in the early fifties the average daily wage of an African worker in gold mines of South Africa was not more than 2s. 8d., plus rations; the average wage of a European worker in the same mine was £1 16s. 0d. Even if the value of the rations provided is counted as being equal to the wages paid in money, the total wages paid annually did not come to more than £32 million for the 400,000 Africans as against £16 million for the 30,000 Europeans.[34]

An official publication of the United Nations[35] makes the following comparison between the income per head of population of the African population, and that of the Europeans in some African countries in 1949:

	African population	*Non-African population*
Kenya	£6	£209
Northern Rhodesia	£5	£292
Southern Rhodesia	£9	£306

It is sometimes asserted that this very low wage level is due to the "lack of needs" of the workers in the colonial countries. This claim is contradicted first by the frightful state of poverty in which they live, a state which borders on famine (see on this subject Josué de Casro's remarkable work. *Géopolitique de la Faim* (Geopolitics of Hunger): the daily consumption of calories has been estimated at 1,200 in Bolivia, 1,000 in Ecuador, and 2,000 in Colombia, i.e. half or even less of the physiological minimum for people who work.[36] Moreover, all economists concur in stating that the inhabitants of the under-developed countries have quickly assimilated the needs which are characteristic of the advanced countries and thus demand "a level of consumption which the economy cannot give them". A whole school even regards this "imitation effect" (Duesenberry) as one of the main obstacles to the industrialisation of the under-developed countries.

Others again see in the low wages a reflection of the "low level of productivity" of the colonial labour-force. This theory is glaringly contradicted by facts in certain instances (oil, mining, etc.) in which the physical output per worker is higher than in some enterprises in the U.S.A., whereas the wages paid amount to only 10 per cent of the American wages.* But even were this theory to seem to conform to the facts, it contains a flagrant error of reasoning.

* See in Chapter 5 the comparison between productivity in the American, British and Japanese steel industries.

Productivity is above all a function of the equipment made available to the worker, of his technical and general cultural level, and of his capacity for physical efforts. Now, colonialism creates an abnormally low level of precisely these three fundamental factors of productivity. It can be claimed with very much more justification that *the low level of productivity is not the cause but the result of the low level of wages, and of the all-round under-development* which is characteristic of colonial and semi-colonial economy.

The fundamental economic cause of the low level of colonial wages —and so also of colonial superprofits—lies in the existence of an enormous industrial reserve army in the colonial and semi-colonial countries, i.e. in the lack of jobs and in rural unemployment. This phenomenon explains not only why wages are low in the colonial and semi-colonial countries but also why they *stay practically unchanged* over long periods, despite the simultaneous increase of production and of industrial productivity.

"It is this continuance of the conventional level of low wages, even when the 'transition phase' has passed, which . . . gives substance to the discontent with the 'nineteenth-century' pattern of development," writes Mr. Myint, and he goes on: "Wherever it (the cheap labour of India and China) was imported, it decisively pulled down wages and incomes in the 'semi-empty' countries to the very low level appropriate to the over-populated countries . . ."[37]

This phenomenon is true of Ceylon, Indonesia, Malaya, Mauritius, Fiji, parts of South and East Africa, the West Indies, etc.

Oscar Ornati considers that the real wages of the Indian workers remained practically the same all through the period 1860–1900, when Indian industry was being established; they rose a little between 1900 and 1910, owing to a temporary shortage of industrial labour.[38] The work *The Economic Development of Brazil*, published by the United Nations, records that throughout the years 1939–53, which nevertheless saw an exceptional advance in industrialisation, and so an increase in productivity, real wages remained practically unchanged, owing to the constant influx of the excess population of the countryside into the towns.[39]

In the case of Egypt, Issawi[40] points out that real wages fell by 35 per cent between 1912 and 1929, and then by not less than 50 per cent during the crisis of 1929–33, which brought them down to famine level in the literal sense of the word. The annual consumption of cereals and vegetables per head of population fell from 287 kilograms in 1914 to 245 kilograms in 1936–38. The productivity of the day-labourer, calculated in terms of amount of earth shifted per day, has declined by 25 to 30 per cent since the First World War.

The explanation of this phenomenon is a very simple one: it is provided in this striking description by Professor Harbison: "There

are vast surpluses of under-employed agricultural labour which, with few exceptions, are located fairly close to the centres where industrial establishments are concentrated. Moreover, in the already over-crowded urban areas there is an almost inexhaustible pool of un-employed or partially employed labour . . . The prospect is that there will be more workers pushed off the land and out of the villages because of near starvation than there will be jobs in industry available for them."[41]

The work from which this quotation is taken observes with regard to French West Africa that, down to 1953, the Governor fixed the minimum wages at 10 per cent below subsistence level, because economic conditions made it impossible for the trade unions to fight for their rights. And in the British West Indies all wages are kept below subsistence level because "a job at any wage is better than no job."[42]

The world-wide division of labour

The export of goods to the backward countries during the nineteenth century had the effect of destroying the old modes of production in these countries without making possible the introduction of the new capitalist mode of production. The export of goods made up to some extent for the inadequacy of the native property-owning classes as regards accumulation of capital, and so made possible an initial phase of capitalist development in these countries. But the imperialist bourgeoisie introduced the capitalist mode of production into the colonial and semi-colonial countries in a very special way. It developed there without any connection with the country in question's needs for economic or industrial development, but, instead, in accordance with the exclusive interests of the imperialist bourgeoisie and of the metropolitan country itself.

In the capitalist countries of Europe and America, as also in the "white" dominions of the British Empire, the capitalist mode of production developed more or less organically, despite the spasmodic pattern of its growth. The manufacturing transformation industries were developed parallel with or even prior to the basic industries; light industry was directed primarily towards the internal market, which in its turn expanded because agriculture provided raw material for industry; a proportionate development of all branches of the economy, impossible of achievement in the short run owing to the anarchy of capitalist production, was realised in the longer run, by way of crises and depressions.

The development of the mode of production proceeded otherwise in the colonial and semi-colonial countries. The capital came from the bourgeoisie of the imperialist countries, who were looking for a kind of production with guaranteed markets, which would make it

possible to *realise* the colonial super-profits produced by colonial labour.

But the under-developed countries are by definition poor, with a narrow internal market for manufactured goods;* their wants in respect of industrial products are moreover as a rule covered by the capitalist industry of the metropolitan country, which is not in the least tempted to compete with itself. This is why the capital exported to the under-developed countries specialises essentially in production *for the world market* (together with the establishment of the infrastructure needed for this production).

"Such modern production as was developed in colonial areas was primarily for the world rather than the local market. The growth of the seaports is evidence of this, as is the absence of interior communication networks . . . In all colonial areas, the contribution of the local peoples to industrial development has mainly taken the form of labour."[44]

And in order to avoid competition with the metropolitan country's industrial production, this production for the world market is essentially a production of *agricultural and mineral raw materials*. The economy of the colonial and semi-colonial countries becomes the *complement* of the capitalist economy of the metropolitan countries and is developed only within the limits set by this function.[45]

The result is a completely one-sided economic development, limited to the production of a small number of products or even of a single product (monoproduction, monoculture). In *Chile*, the tax on sodium nitrate exports provided, on an average, half of the state's revenue between 1880 and 1930; after that, copper took first place. In *Cuba* sugar is the backbone of the economy; in 1937 it accounted for 78·7 per cent of the value of all exports. In the same year, exports of tin from *Bolivia* made up 70 per cent of all exports. This percentage is still higher in the case of cotton exported from *Egypt*, the *Sudan* and *Uganda*, of oil exported from *Venezuela, Iraq, Saudi Arabia, Kuwait* and *Qatar*. Coffee provided in 1955 69 per cent of *Guatemala's* exports and 84 per cent of *Colombia's*. In the same year bananas made up 74 per cent of *Panama's* exports, and coffee and bananas together 72 per cent of exports from *Honduras*, 75 per cent of those from *Ecuador*, and 87 per cent of those from *Costa Rica*. Ground-nuts and products derived from them represented 85 per cent of *Senegal's* exports, and coffee and cacao 85 per cent of those from the *Ivory Coast*.

In *Malaya* exports of rubber and tin accounted in 1939 for over 80 per cent of the total figure. In *Greece* tobacco provided between 55

* Here is a striking example quoted by Professor Nurkse[43]: "In Chile . . . it has been found that a modern rolling mill, which is standard equipment in any industrial country, can produce in three hours a sufficient supply of a certain type of iron shapes to last the country for a year."

and 60 per cent of all exports in the inter-war years. *India's* exports of jute and tea, *Brazil's* of coffee and cotton vary between 55 and 75 per cent of the total exports from these countries. In *Indonesia* the exports of rubber, petrol, tin and copra make up 80 per cent of the total. *Ceylon's* exports of rubber and tea account for the bulk of sales abroad. The list could be completed by including practically every under-developed country.

Monoculture and monoproduction make these countries strictly dependent on the international business situation, and entail a number of economic and social defects: a fundamental instability in the economy, which is subject to sudden fluctuations; repeated bursts of inflation and increase in the cost of living; substantial periodical unemployment; serious disturbance of the country's ecology through soil-erosion; over-exploitation of the soil, causing its exhaustion; undernourishment of the population owing to the excessive spread of monoculture with disastrous effects on the fertility of the soil.

"The prevailing starvation in South America is a direct consequence of the continent's historical past. This history is one of colonial exploitation along mercantile lines. It developed through successive economic cycles, the effect of which was to destroy, or at least upset, the economic integrity of the Continent. There were the cycle of gold, the cycle of sugar, the cycle of precious stones, the cycle of coffee, the cycle of rubber, the cycle of oil. And during the course of each of these cycles, one finds a whole region giving itself up entirely to the monoculture or mono-exploitation of a single product—at the same time forgetting everything else, and thus wasting natural wealth and neglecting the potentialities of regional food supply. The one-crop culture of cane sugar in the Brazilian North-East is a good example. This area once had one of the few really fertile tropical soils. It had a climate favourable to agriculture, and it was originally covered with a forest growth extremely rich in fruit trees. Today the all-absorbing, self-destructive sugar industry has stripped all the available land and covered it completely with sugar cane; as a result this is one of the starvation areas of the continent. The failure to grow fruits, greens and vegetables or to raise cattle in the region has created an extremely difficult food problem in an area where diversified farming could produce an infinite variety of foods."[46]

Boyd Orr has had to note[47] that "in some of the central Latin American countries soil erosion is more serious than in North America"; owing to the lack of rational exploitation, which in turn is due to monoculture.

The same phenomena are found in Africa and Asia: "It is not only because it cuts down local production of foodstuffs that the régime of production for export is ruinous to the natives, but also because it exhausts the soil by intensifying the factors of erosion. This has hap-

pened with cocoa-bean-growing in the Gold Coast and monkey-nut growing in Senegal."[48] Professor Gouron[49] declares that the "great extension of the cultivation of ground-nuts is a false wealth" for the Sudan, that its forests are on their way to disappearance and that the soil and agriculture are suffering frightful damage.* In Ceylon, the Report of the Kandyan Peasantry Commission (Colombo, 1951) explains how the monoculture of coffee and tea, and the uncontrolled deforestation, brought about ecological damage which was the fundamental cause of the serious floods experienced in 1957.[51]

In Egypt the extension of cotton-growing and the practice of permanent instead of periodical irrigation caused a rapid exhaustion of the soil. Owing to the lack of drainage, the same phenomena, closely linked with monoculture, transformed the Nile valley into a real lazar-house: 55 per cent of the population had bilharzia, 30 per cent ankylostomiasis and 15 per cent malaria; among the rural population the percentage of unfortunates suffering from bilharzia, a very debilitating disease, amounted to 75 per cent.[52]

The reduction in the area under grain crops in countries like India, although they suffer from a chronic shortage of foodstuffs, is a further consequence of monoculture. In the period between 1934–35 and 1939–40, the area of India's soil under food crops declined by 1·5 million acres, while during the same period the area under export crops increased in the same proportion.[53] At the time of the Korean war boom a similar phenomena occurred; the area under rice fell by 8 per cent to the advantage of the area under cotton.[54] In Egypt the wheat-growing area fell sharply during the First World War, to the advantage of cotton, causing a serious famine.[55]

The apologists of imperialism sometimes claim that monoculture and monoproduction are the consequence of "natural" conditions in the colonial and semi-colonial countries. This does not fit the facts. Though these countries certainly possess abundant natural riches, equivalent riches did not lead to monoproduction in England, Canada, Sweden, Belgium, Bohemia, Silesia, the Ruhr, etc. Monocultures, far from being "natural" have usually been *imported* from abroad (notably, coffee in Java, Ceylon, and Brazil, cotton in Egypt and the Sudan,

* In the study of indigenous peoples published in 1953 at Geneva by the International Labour Office, a similar process is described which happened among the Maoris in New Zealand when the white men first appeared there. "The efforts made to produce sufficient cleaned native flax to exchange for firearms had seriously affected the production of foodstuffs and energies of the people. The abandonment of land with the decline of numbers was a contributory cause of the loss of tribal holdings to the white man . . . It has been estimated that in the hundred years following 1840 the Maoris lost, through sale or confiscation all but 4 million of the 66 million acres comprising the total surface of the country."[50]

sugar-cane in Cuba, etc.). The best example in this connection is natural rubber in South-East Asia:

"The increased demand was met from plantations (both large-scale capitalistic estates and peasant smallholdings) of South-East Asia, chiefly Malaya, Sumatra and Java, while the output of wild rubber from South America declined despite favourable prices. A principal reason for the migration of the rubber-growing industry is to be found in the access of these countries to large reservoirs of labour in South India, China and Java, as well as to the capital markets of Western Europe; the presence of enterprising European merchant firms and a stable administration also played an indispensable part. It is of special interest that neither Malaya nor Sumatra, the two main producing countries, had a large indigenous labour force, a particularly fertile soil, or supplies of local capital when rubber was established there. No survey of their resources carried out, say in 1895, would have suggested that within a few years these territories would be the principal producers of the leading tropical plantation crop."[56]

In fact, as the same writers make clear, it was not only the crop itself that was introduced from abroad, but also the labour (Africans to the West Indies, Tamils to Ceylon, Chinese to Malaya and Indonesia, Indians to East Africa, etc.).

Thus, the penetration of the capitalist mode of production into the colonial and semi-colonial countries during the last three-quarters of a century has more than anything else produced there the degrading and barbarous effects of an all-round commercialisation of social life, without the complementary civilising tendencies of capital being allowed to flower.[57]

It was the imperialist export of capital that realised, for the first time in man's history, a genuine world-wide division of labour, a real universal world market, which intimately bound together all the countries in the world. At the time when this development had reached its highest point, on the eve of the First World War, the still relatively free circulation of goods, capital and people (though already hindered by protectionist and monopolistic tendencies) made all countries interdependent. Capital thus accomplished the socialisation and *de facto* internationalisation of production on the world scale, though almost exclusively to the advantage of the metropolitan countries.*

* "It must be admitted that, in contrast to the tremendous stimulus to further economic development enjoyed by the advanced countries, international trade seems to have had very little 'educative' effect on the people of the backward countries . . . The peasants 'specialise' for international trade simply by going on producing traditional crops by traditional methods or new crops which can be readily produced by traditional methods . . . The people of the 'semi-empty' countries appear to have obtained a smaller share of the gains from international trade than can be satisfactorily accounted for in terms of the initial social and economic conditions of these countries . . ."[58]

In bourgeois society, where the production of commodities becomes universal, no producer produces use-values first and foremost for his own consumption, using only his "surplus" for exchange. Similarly, before 1914, in no country was the totality of the production of commodities intended to satisfy primarily the country's own needs, with only the "surplus" for export. Each country has a number of branches of production which work primarily for the world market—shaped by international transfers of capital and in no way corresponding to any "natural" or "geographical" structure, let us recall! —and it exists only thanks to the income from these branches. The direct or indirect labour of the workers of many countries enters into every one of the products consumed in any single country. The social productivity of labour, considered from the international standpoint, goes forward with giant strides, owing to this specialisation which crushes the harmonious development of the backward peoples, just as the division of labour within a capitalist nation gave a tremendous push forward to the productive forces while pitilessly crushing the free development of individuals.

The interdependence of all the countries in the world is vividly described by Rosa Luxemburg: [59] "German metal products go to the neighbouring countries of Europe, to South America and to Australia; leather and leather goods go to all parts of Europe; German glassware, sugar and gloves go to Britain; furs to France, Britain and Austria-Hungary; glycerine dyes to Britain, the U.S.A. and India; slag for fertiliser to the Netherlands and Austria-Hungary; coke to France; coal to Austria, Belgium, the Netherlands, Switzerland; electric cables to Britain, Sweden and Belgium; toys to the U.S.A.; German beer, indigo, aniline and other dyes derived from tar, medical supplies, cellulose, goldsmith's work, stockings, fabrics and clothing made of wool and cotton, rails, all are exported to nearly every trading country in the world . . .

"On the other hand, however, we eat Russian bread and Hungarian, Danish and Russian meat; the rice we eat comes from the Dutch East Indies and the U.S.A.; the tobacco from the Dutch East Indies and Brazil; we import cocoa from West Africa, pepper from India, lard from the U.S.A., tea from China, fruit from Italy, Spain and U.S.A.; coffee from Brazil, Central America and the Dutch East Indies; meat extract from Uruguay; eggs from Russia, Hungary and Bulgaria; cigars from Cuba; watches from Switzerland; champagne from France; hides from the Argentine; bed-feathers from China; silk from Italy and France; flax and hemp from Russia; cotton from the U.S.A., Egypt and India; fine wool from Britain; brown coal from Austria; saltpetre from Chile; Quebracho wood for tanning from the Argentine; wood for building work and pit-props from Russia; wood for basket-making from Portugal, copper from the U.S.A.; tin from the Dutch

East Indies; zinc from Australia; aluminium from Austria-Hungary and Canada; asbestos from Canada; asphalt and marble from Italy, paving stones from Sweden; lead from Belgium, the U.S.A. and Australia; graphite from Ceylon; phosphoric lime from the U.S.A. and Algeria; iodine from Chile . . ."

This world-wide division of labour, achieved through the export of capital, centralised the production of manufactured goods in Western Europe and the U.S.A., the production of basic foodstuffs in Eastern Europe and the large overseas countries (the U.S.A., Canada, the Argentine, Australia), and the production of vegetable and mineral raw materials in the rest of the world. But this division of labour, originally created by the export of capital, is inevitably undermined by it. The frightful differences in standard of living, the brutal subjection of one nation to another, prepare the way for the colonial revolution which in turn pushes forward the industrialisation of the underdeveloped countries and intensifies the international contradictions of capital.

International trusts and cartels

The export of capital becomes general at a definite stage of capitalist development: the monopoly stage, in which capitalist groupings, cartels, syndicates, holding companies and trusts already dominate large sectors of production in the metropolitan countries. The export of the capitalist mode of production to the colonial and semi-colonial countries means the export of monopoly capitalism, of the monopolistic trusts. The substantial amounts of capital needed for the creation of colonial enterprises; the strict check which the big banks keep on the capital market; the appearance of vertical trusts which monopolise the production of raw materials; the need to eliminate, so far as possible, competition within the capitalist sectors of the colonial economy, so as to ensure colonial superprofits—all these factors imply that production by the colonial countries for the world market is concentrated to an even greater extent than the concentration to be found in the metropolitan countries.

The growth of the *Unilever* trust will serve to illustrate how a monopoly of finished products spreads its influence in the colonial countries, in order to constitute a monopoly of raw materials. "The nature of the raw materials required by the soap maker made him (Lever) peculiarly conscious of the importance of foreign supplies. And the quality of Sunlight, depending as it did on imported vegetable oils, made Lever from the beginning alive to the problems of raw materials. Round about the turn of the century, the fear of being 'squeezed' for these materials by the merchants and brokers became almost an obsession with him, and in the projects for winning raw materials that followed there was probably a large element of defensive strategy."[60]

The disposition of sources of raw materials and the climatic and geological conditions which prevail in the different parts of the world are not, however, such that a single colonial country can secure a long-term monopoly of a mineral or vegetable product. These raw materials are produced for the world market; they do not possess any "protected" market, except perhaps that of the metropolitan country; there are hardly any outlets for them in the country of origin. The furious competition carried on between the big trusts which monopolise the production of raw materials on a world scale entails extremely bad consequences for prices and rates of profit.* To deal with this danger they proceed to form capitalist alliances on the international scale, international cartels which fix and limit total production, guarantee to each partner a precise share in production, and divide up the world market into zones in each of which one of the partners has exclusive rights both to sell and to acquire raw materials, partners who break the rule being liable to fines.

Down to 1922 the U.S.A. (Utah and Colorado) was the chief producer of radium. In that year the Union Minière du Haut-Katanga began to get uranium from its mines at Shinkolobwe; the results were such that after two years the American mines had to cease production. The Union Minière increased radium production from 20 to 60 grammes a year, and fixed the price arbitrarily, its only remaining competitors being Bohemia and Canada, where production however did not exceed 3 or 4 grammes a year. With costs of production ranging from £7 to £7 7s. 0d. a milligramme, the selling price was fixed at £10 to £12 a milligramme, which ensured a rate of profit of 50 to 65 per cent.

During the 1930s, however, Eldorado Gold Mines Ltd. began to develop some newly-discovered deposits in Canada; production rose from 3 grammes in 1936 to 70 grammes in 1938. Fierce competition raged for several months, and prices fell to 20 dollars (£4) a milligramme. An agreement was made at the end of 1938 between the Union Minière and Eldorado, fixing the allocation of the two companies at 60 per cent and 40 per cent respectively, of world needs, and prices rose again to 40 dollars (£8) the milligramme.[61]

The same writer, Prof. E. A. G. Robinson, quotes the example of raw diamond production. Controlled since 1890 by the De Beers (Oppenheimer) group, this production remained a monopoly of theirs for over 25 years. The development of an increasingly important production of diamonds in South-West Africa, Angola, the Belgian Congo, the Gold Coast and Sierra Leone destroyed the natural monopoly, but the world diamond cartel, the Diamond Corporation, dominated by De

* The dissolution of the synthetic nitrogen cartel in 1931 led to a fall of 43 per cent in a single month in the price of ammonium sulphate in London.

Beers, continued to regulate prices and (though less thoroughly) production.

These international cartels do not remain restricted to the trusts producing raw materials, though it is in this sector that they have become general and shown themselves most lasting. The enormous super-profits realised by these monopolies (monopoly superprofits and colonial superprofits combined) cannot be wholly invested in their own sector, where they would bring about a collapse in prices. The trusts which monopolise the production of raw materials thus spread rapidly to adjoining spheres, and then to spheres which are farther and farther away from where they started:

"Unilever will make and sell artificial cream in Finland, plywood in Nigeria, petroleum cracking catalysts in Warrington; it will can hams in Holland and export them to America, spend £129,000 on tea-bagging machinery for the Lipton business in the United States, now hitting new records, and lift its sales of animal feeding stuffs from £90 million to a record of £104 million . . ."[62]

Moreover, the circumstance that they possess a monopoly of sales (including retail sales) in the countries which are the big markets for a particular raw material enables monopoly groups to seize more quickly a predominant, or even monopoly, position in the country where the raw material is produced. A monopoly situation results at both the buying and the selling end.

This happened with the frozen-meat industry in the Argentine. It was a battlefield of epic struggles for influence between the American groups Swift, Armour, Morris and Wilson and the British groups brought together by Vestey Brothers. The latter, starting in 1922, recovered lost ground thanks to their control of 3,500 butchers' shops in Britain; they could increase the price they paid for meat in the Argentine by increasing still further the selling price of the meat in Britain. In the end, the two camps came to a *de facto* understanding, which caused a rapid fall in the prices paid to Argentine cattlemen.[63]

The number of international cartels has increased steadily since the end of the nineteenth century. There were 40 in 1897, 100 in 1910, 320 in 1931. The share of world production controlled by some of these cartels at particular moments is shown by this table.

	Year	*Percentage of world production*
Rubber cartel	1940	97
Phosphates	1937	92
Diamonds	1939	over 90
Copper	1939	over 90
Cement	1937	92
Potash	1939	91

Bottle-glass	1932	91
Electric lamps	1939	90
Sugar	1937	85
Tin	1939	83
Artificial silk	1929	70
Synthetic nitrogen	1932	67
European timber	1926	75
European steel	1929	32
European steel	1936	45

* 70 per cent of world exports.

The international cartels guarantee their best-placed partners the same *cartel rent* as is obtained by national cartels. Actually, this cartel rent may be even greater on the international economic scale, given the differences in costs of production (and so in profitability) existing between the best-placed and worst-placed producers on the international scale.

The most striking example of this available is that of the *world oil cartel*. We have mentioned above† that this cartel, which has been in operation since the "Achnacarry Castle Treaty" of September 1928, fixes uniform selling prices regardless of the point of origin of the oil, and that it compelled the U.S. Navy to pay the same price in the Mediterranean as in the Gulf of Mexico, though Arabian oil is produced three or four times more cheaply than American.[64]

Similarly, Western Europe's supplies of oil between 1945 and 1954 were provided not on the basis of the price of production in the Middle East (the main if not the only supplier) but on that of the common price of the world cartel, determined in accordance with the price of production in the Gulf of Mexico plus the cost of transport from the Western Hemisphere to the ports of Western Europe. It thus included "phantom transport charges" which were added to the difference between the American and Arabian price of production. The result was a selling price of crude oil of nearly 2 dollars a barrel (average for 1947–54), or double, if not treble, the cost of production (tolls included) plus the real transport costs. This "cartel rent" amounted to *some £2 billion between 1945–46 and 1954*.[65]

It must further be noted that for the international cartels, as for the national ones, the law of uneven development brings about periodical changes both in the composition of the cartel and in the allocations between partners.

Thus, the activities of the Italian State holding company E.N.I. disturbed the stability of the oil cartel increasingly from the moment when E.N.I. acquired its own sources of supply, not only in Italy, but also in the Middle East and even in the U.S.S.R.; it offered its services to Egypt, Libya and Algeria for the development of produc-

† See Chapter 12.

tion in these countries, thereby beginning to force down the price of oil in Western Europe.

It is possible to distinguish between buying cartels, selling cartels and integrated cartels:

(*a*) *International buying cartels* bring together the bulk of the buyers of a certain raw material and may thus cause a considerable fall in prices. In this way the international cartel formed in the summer of 1937 by the chief buyers of cocoa on the west coast of Africa (the Unilever trust, a British chocolate firm and a French shipping firm) secured a fall in the price of cocoa on the New York stock exchange from 12·5 cents a pound in January 1937 to 5·52 cents in December of the same year, which in turn brought about a social crisis in West Africa, during which the growers burnt large quantities of cocoa.[66] The present position of the U.S. Government as monopoly buyer of what are called "strategic" raw materials (strategic stockpiling) has enabled it to effect a considerable fall in the prices of these raw materials since the end of 1950.

(*b*) *International selling cartels* bring together the chief producers of a certain raw material or finished product. They are thus able to avoid a fall in prices and bring about a rise through establishing a "pool" of stocks and restricting production. The international rubber cartel established in 1922, led to a rise in prices from 17·34 cents a kilogramme in that year to an average of 72·46 cents in 1925.

(*c*) *Integrated international cartels*, bringing together the chief producers of certain finished products for the purpose of jointly buying their raw materials, forming a pool of stocks, restricting production, exchanging patents and technical information among themselves, dividing up international markets, etc.

An example of this type is provided by the world electric lamp cartel set up in 1924. Within such a cartel the interpenetration between the partners affects even the sphere of ownership, as is also the case with the international oil cartel. The American General Electric trust acquired substantial blocks of shares in the chief firms participating in the cartel. In 1929 it owned 29 per cent of the shares of Osram (Germany), 17 per cent of those of Philips (Netherlands), 44 per cent of those of the Compagnie des Lampes (France), 44 per cent of those of the A.E.C. (Britain), 40 per cent of those of the Tokyo Electric Company (Japan); 10 per cent of those of Tungsram (Hungary), etc.

Private trusts wield sovereign rights in under-developed countries

The economy of the colonial and semi-colonial countries is characterised by monoproduction and monoculture. As the production or the sale of goods on which a colony's economy is based is often monopolised by an international cartel or by a small number of trusts, these may secure really sovereign power over the life of whole nations.

They own enormous areas of land, on which sometimes live hundreds of thousands or even millions of human beings. The houses, the villages, the towns all belong to them, as well as the railways, the power stations, the postal services, the ports and sometimes even the armed forces; here we have no longer just "company towns"; they are "company countries".

The actual power of these trusts usually extends beyond the area where they reign as absolute masters. From the moment they acquire a decisive position in the economic and financial life of a country—with a big share of the state's revenue coming from the taxes they pay—they can likewise buy up mayors, politicians, newspapers, ministers, chiefs of police, army leaders, in capitals which are not necessarily built on land belonging to them. Their régime normally means complete corruption of public life.*

Official Foreign Office documents admit that the three ministers responsible for the agreement of 1919 between the A.I.O.C. and the Iranian Government had been bought, in the literal sense of the word, by London, and that the British Government promised them asylum in the British Empire, doubtless in case they should be driven out by their indignant people.[68] A work written in praise of the United Fruit Company relates candidly how the future head of this trust, Samuel Zamurray, acquired huge concessions in Honduras (the right to build a railway, a guarantee that taxes would not be increased, exemption from import dues for all equipment to be brought in, etc.), thanks to his having financed and personally supported with his yacht the "revolution" of General Bonilla, who drove out a government hostile to the granting of these concessions.[69]

These same phenomena are found, at different levels of intensity, but parallel to each other as regards the main lines, in Iran (before Mossadegh's nationalisation), dominated by the Anglo-Iranian Oil Company; in Honduras, Costa Rica and Guatemala, dominated by the United Fruit Company; in British West Africa under the sway of Unilever; in Katanga (Belgian Congo) under the domination of the

* Here is what was told to the International Court at The Hague by Mr. Mossadegh when he was Prime Minister of Iran: "On the pretext of security, Anglo-Iranian had secured the right to maintain a real secret police, closely linked with British intelligence, whose operations were not restricted to the oil province of Khuzistan but extended all over the country, penetrating all social classes, influencing the press, affecting public opinion, inspiring the undisguised interference by British representatives, whether diplomatic or industrial, in the running of the country's affairs. Thus, without meeting any resistance either from a Chamber resulting from elections which were distorted by its intrigues or from a Government composed in accordance with its wishes, the Anglo-Iranian Oil Company, having become a state within the state, decided the country's fate. This was, for thirty years, the condition of servitude and corruption in which Iran was plunged."[67]

Union Minière; in Liberia, dominated by the Firestone Rubber Company; in Borneo, in the empire of Royal Dutch; in Venezuela where the Creole Petroleum Company rules; in Chile under the Guggenheims; in Bolivia before the revolution of 1952, under the domination of the "tin kings" Patino, Hochschild and Aramayo, etc.

United Fruit and its subsidiaries, such as the Banana Shelling Corporation, the Canada Banana Corporation, Canadian-Equatorial Cacao, the Chiriqui Land Company, Clarendon Plantation, etc., possess 247,000 hectares of land (nearly all in Central America), including 17 per cent of the cultivated land in Costa Rica, 10 per cent of Panama, 5 per cent in Honduras and 1·3 per cent in Guatemala. It owns some 2,400 kilometres of railway, numerous radio stations, 65 cargo boats, etc.[70] In 1955 it controlled 35 per cent of all exports from Honduras, 69 per cent of Panama's exports and 41 per cent of Costa Rica's. Its gross profits for the same period were three times as high as the total of the state budgets of Costa Rica, Guatemala and Panama.[71]

Here is an example of how United Fruit discusses matters with the governments of states "on an equal footing"; in July 1938 the Costa-Rican Congress approved a contract which provided for the development of the banana industry on the country's Pacific coast. The United Fruit Company agreed to plant 4,000 hectares in five years, to build naval dockyards, harbour installations [!] at Quepos and Golfito, and two railways [!] in eight years. This programme entailed expenditure by the company of the order of 10 to 12 million dollars. In return, the government of Costa Rica undertook to keep its export dues on bananas down to 2 cents a bunch.[72]

Unilever discussed matters with the Belgian Government in a similar way, as one power with another:

"Lever . . . entered into treaty, almost like a sovereign prince, with the Belgian Government, and on 14th April, 1911 a convention was signed with the Belgian Congo which brought into existence 'La Société Anonyme des Huileries du Congo Belge'. Thus Lever, in the sixtieth year of his life, burdened already with the direction of a world-wide business, undertook a task which was little less than the reorganisation of a principality."[73]

Summing up the situation, a defender of the trusts, the former Under-Secretary of State of the U.S.A., A. A. Berle, observes: "In certain parts of the world an American corporation must do its business frankly and openly with the foreign government, with or without assistance from the United States Department of State. American oil companies doing business in Venezuela, American copper companies doing business in Chile, American sugar companies doing business in the Dominican Republic, for example, deal directly with the competent authorities of those states . . . Some of the larger corporations

have continuous and careful reports made to them on the attitudes and aptitudes of the American diplomatic officials, rating them according to their probable usefulness in advancing or protecting the company's interest."[74]

The economic structure of the under-developed countries

The present structure of the under-developed countries is the product of their past and of the particular way in which they have made contact with capitalism. It is thus a matter of *combined* development —the combination of an *ancien régime* in dissolution with a capitalism which carefully refrains from developing industry; the combination of a medical technique which reduces the death rate with the suppression of any industrial technique that would make it possible to give work, dignity and hope to the people thus kept alive.

It is *industrial under-development* that is the basic flaw in the economy of the under-developed countries. This under-development itself has two roots: first, the fact that foreign capital invests nothing, or almost nothing, in the development of manufacturing industry; and, second, the fact that the indigenous ruling classes themselves prefer to invest in land, trade or usury rather than in building up modern industry.

In 1914 over 85 per cent of British investments abroad were in railways, production of mineral or vegetable raw materials, and State loans.[75] In 1951–52, of the total of French public investments in overseas dependencies, less than one per cent were in manufacturing industry.[76]

Out of the total of 16·3 billion dollars invested abroad at the end of 1953 by U.S. firms, only one billion, or a little over 6 per cent, was invested in manufacturing industry outside Canada and Western Europe (and of this a large part was invested in Australia, New Zealand, Israel, South Africa and other countries of the same sort, which are not colonial or semi-colonial in the strict sense).[77]

Industrial under-development is even further intensified through the break-up of the old craft industry, domestic industry, and sometimes even manufacture which existed in countries like India, China, Indonesia, and the countries of North Africa, and which succumbed to the competition of the cheap products of the modern industry of the West:

"The village which was the basic economic and cultural unit of these people came under the disrupting forces of technology. Its self-sufficiency disappeared and it became tied up with the city, the nation and the outside world. Village industries, such as spinning and weaving, pottery, brassware, oil pressing, vegetable dyes, lacquer work, etc., languished; machine-made goods, such as aluminium wares, kerosene, textiles and synthetic dyes took their place. A superfluity of cheap

manufactures displaced the craftsman, depriving the group of his hereditary skill."[78]

Thus, industrial employment declined, if not in absolute figures, then at least in its relative share of the growing population. In India, according to official statistics, the percentage of the working population living by modern industry *fell* from 5·5 per cent in 1911 to 4·3 per cent in 1931. Since then, down to India's independence, it went on declining, the previously-quoted United Nations document giving us the following percentages of new jobs in industry for the increased working population: [79] 1931–39: 0·8 per cent 1939–45: 4·5 per cent 1946–48: 0·7 per cent.

Only after independence were these percentages improved a little and only since then can we estimate that modern and domestic industry now provides employment for more than 10 per cent of the working population. *But the percentage of the population living by agriculture was at the end of the fifties still higher than in 1891*, as we see from the following table:

	Percentage of the working population engaged in agriculture	
1891	61·1	(All these figures are taken from the official censuses carried out in the given years.)
1901	66·5	
1911	72·2	
1921	73·0	
1931	65·6	
1950–51	72·0	
1952	68·0	
1956	± 70·0	(Official Second Five-Year Plan)

And the Indian authorities hoped that they would be able to reach again the 1891 percentage only around 1975–76!

It was the same in North Africa after the French conquest. The number of native craftsmen in Algeria declined from 100,000 in the middle of the nineteenth century to 3,500 in 1951. During a few years after the war, owing to the invasion of manufactured goods favoured by the Anglo-American military occupation of 1942–44, the number of craftsmen declined from 39,267 in 1946 to 6,466 in 1951 in Marrakesh and from 31,805 in 1946 to 12,608 in 1954 in Fez.[80]

The reduction in non-agricultural employment (relative to the increase in population) causes a terrible *pressure on the land*, accompanied by chronic under-employment in the countryside, a state of agricultural overpopulation which amounts to formidable proportions.

Before the war the rural overpopulation of Eastern Europe was estimated at 45 per cent of the adult population of the villages.[81] In Egypt this percentage was as much as 40 to 50 per cent: "It may be

safely affirmed that about half the present rural population is 'surplus' in the sense that there is no adequate employment for it within the present agricultural framework. In other words, the same output could be obtained with only half the present rural population, even if no changes were made in technique and organisation."[82]

In Ecuador the degree of overpopulation is estimated at 35 to 40 per cent of the population of the Sierras.[83]

As for India, the official text of the first Five-Year Plan estimates that the unemployed in the countryside make up 30 per cent of the adult population (nearly 70 million people) and that in addition unemployment affects millions of cultivators working on dwarf plots.[84] Earlier, the same document noted that of the four million agricultural workers recorded in 1951 census, 89 per cent had no steady job and worked only at irregular intervals.[85] Seven years later, D. K. Rangnekar estimates that the "useless" population—that is, those whose disappearance would not cause any decline in agricultural production—amounts to 25 per cent of the working population of the Indian countryside, or 60 million people.[86] According to Bonné[87] the number of agricultural workers without land increased from 7·5 million in 1822 to 35 million in 1933 and 68 million in 1944.

The pressure of these huge masses of people on a limited area of land is such that ground rent attains unheard-of proportions. Before the Chinese revolution ground rent was officially estimated at an average of 40 per cent or even 60 per cent of the harvest.[88]

A United Nations publication gives the following examples of ground rent currently in force:

(*a*) 50 per cent of the harvest in Japan as rent between 1868 and the Second World War;
(*b*) rents varying between 35 and 50 per cent of the harvest in Vietnam (with a rate of interest of 100 per cent for loans!);
(*c*) rents of 30 to 50 per cent for land leased in the Philippines, the higher figure being the more usual.[89]

"Because of the competition for land, the landowners and moneylenders have been able to make the peasants agree to more and more onerous terms for the use of the soil and of credit. Enforcement by British officials of law and order has served to protect the landholding groups from the more violent expressions of popular resentment. It is in this setting that the cultivators, while retaining in their own hands the conduct of agricultural production, have been stripped of the resources with which to increase their output."[90]

In India and Pakistan too the average rent for farms was and remains 50 per cent of the crop.

Alfred Bonné quotes an article on Iran which estimates that *the net incomes of the landowners amount to a third of the crop.*[91]

Quoting an Iranian work, *The Middle Classes in Iran*, by Dr. Elisan Naraghi, *Le Monde* states that the share-croppers in that country retain only 20 per cent of the crop! Sixty per cent of peasant families had no holding and 23 per cent had less than one hectare.[92] But the most disastrous consequence of this state of things is not the low level of agricultural productivity, it is the diversion of the entire social surplus into landownership and usury, which create more income than industry.

Issawi speaks of the enormous value of land in Egypt, one acre being worth the equivalent of twenty years' wages of an agricultural worker[93] Bonné notes:

"This inflated rent level is the reason . . . why many capable landowners who reside in rural villages prefer to rent their land to small farmers rather than work it themselves. The landlord can insist on such high prices because there is always a great demand for leased land on the part of the landless tenants who have no other chance of making a living; thus he obtains a higher income from leased land than from such land when worked by himself."[94]

A United Nations publication makes the same observation, and Daniel Thorner writes: "The Indian landowners have found rent and usury, as opposed to capitalistic profit, easier, safer, more congenial and more lucrative. Thus, for example, in testifying a quarter of a century ago before the Royal Commission on Agriculture in India, Mr. M. A. Momen, Director of Land Records and Survey in Bengal, asserted: 'I have got sufficient lands and do some cultivation myself. I find however that letting them out on half the produce (sharecropping) is more paying than cultivating the lands with my own cattle and by hired servants'."[95]

The arguments which tell against capitalist enterprise in agriculture tell even more strongly against capitalist enterprises of the industrial type. The purchase of land, commerce and usury, these are the investments preferred by the ruling classes of the colonial and semi-colonial countries. They thereby take on a special physiognomy, that of the landowner-merchant-usurer, the landowner-usurer or the merchant-usurer (bourgeoisie of the *compradore* type).

Thus, industrial under-development and the chronic under-employment it involves are at once cause and effect of the concentration of capital in landownership and in hoarded precious metals. Under-development, a product of the dominant imperialist interest, is closely linked with the existing social structure. The interests of the independent ruling classes (with the—partial—exception of the extremely weak industrial "national" bourgeoisie) are bound both by economic ties (shares in foreign trade and in imperialist banks) and by political ones (desire to keep the peasant class in a subject state) to those of the imperialist masters. A deep-going social revolution is indispens-

able if the road to industrialisation and economic advance is to be opened.

This general physiognomy of the economy of the under-developed countries must of course be filled in for each separate country with the significant national peculiarities which differ from country to country (and in countries of continental size, like India, China or Brazil, from province to province). Nevertheless, it is generally applicable to all the under-developed countries, though, of course, in degrees, with the sole exception of the countries of Equatorial Africa and the islands of Oceania other than Indonesia.

Imperialism as an obstacle to the industrialisation of the under-developed countries

The economic under-development of the colonial and semi-colonial countries is a result of imperialist penetration and domination, and is maintained, preserved and intensified by this domination. To eliminate it is the fundamental condition for clearing the way to progress: it is even more important than the removal of the native ruling classes, though the two processes are usually inter-connected.

It is hard to deny that the lack of foreign domination was the decisive factor making possible the industrialisation of Japan, encouraged by all the resources of the State.* For the period 1896–1900 industrial production per head of population was only three times bigger in Japan than in India (5·7 dollars compared with 1·5 dollars); in 1936–38 the difference had become enormous (65 dollars compared with 4·90 dollars).[96] All the colonial and semi-colonial countries which have won political freedom, or have been governed by representatives of the industrial bourgeoisie, have undertaken a vigorous effort at industrialisation which sharply contrasts with the attitude of the governments under imperialist control. The examples of the Argentine under Peron and Egypt under Nasser are typical, likewise the Indian Five-Year Plans.

Nor is it possible to deny that the industrial, commercial and financial ties between the metropolitan and colonial countries which they dominate represent powerful hindrances to industrialisation: "Restraints on the setting-up of new firms . . . may be imposed from outside the country . . . by a company or a group of companies with a particular interest in the industry in question. The possibility and the effectiveness of such opposition to local industrial development are likely to be greatest where political and economic ties are closest, as in the case of a metropolitan country and its dependencies."[97]

The maintenance of free-trade relations between colonies and metropolitan countries is often sufficient on its own to produce this effect:

* See Chapter 14.

if it is not, refusal to share technical information leads to the same result: "It would be difficult, for example, for any of the less developed countries to establish a sizeable aluminium smelting industry on an economic basis without assistance from one or another of the world's major aluminium companies. It would be even more difficult to build and operate a petroleum refinery, without the support of one of the large oil companies."[98]

And Kuznets makes this observation: "Political subordination (is) not a very favourable condition for rapid adoption of the industrial system in politically inferior countries."[99]

A United Nations publication on Brazil states in terms no less plain: "The unwillingness of entrepreneurs to enter other sectors than their own, particularly those in which the market is traditionally supplied by importers . . . creates new difficulties for development. The fear exists among domestic entrepreneurs that their productivity is inferior to that of a foreign competitor, or that the latter, at one stage or another, may artificially reduce his prices in order to recapture the market. The domestic entrepreneur knows that he must compete with financially powerful groups, with highly efficient foreign manufacturers or with those enjoying optimum market conditions, ready access to raw materials, and low external costs."[100]

But it is important to emphasise that the totality of the exchange relations between metropolitan and under-developed countries—which amounts to an exchange of manufactured goods for raw materials—has been organised in such a way as to work systematically to the disadvantage of the latter and the advantage of the former. This emerges clearly from the study *Relative Prices of Exports and Imports of Under-Developed Countries*, which shows[101] that since the beginning of the imperialist era, that is, since 1876, down to 1948, the terms of trade between these two groups of countries have changed by 35 to 50 per cent, at the expense of the exporters of raw materials. A recent investigation by GATT shows that this process has continued in the years after the Second World War. Thus, during the recession of 1957–58, the prices of raw materials exported by the under-developed countries fell by 5 per cent, whereas the prices of the manufactured products they imported rose by 6 per cent.[102]

Whatever the technical reasons adduced to explain this phenomenon, it comes down in the last analysis to the difference in the level of productivity (socially necessary expenditure of labour) between the two types of country, that is, to the "equal" exchanging of *more labour* (less skilled and less productive) on the part of the colonial and semi-colonial countries for *less labour* (more skilled and more productive) on the part of the industrially advanced countries. International trade "on the basis of world prices" has thus merely perpetrated and in a sense "regularised" the transfer of values from the

former to the latter, which is found at the very beginnings of international trade.*

This relative decline in the prices of raw materials exported by the under-developed countries is one of the most important hindrances to their industrialisation.† From time to time, and suddenly, it cuts down the State's revenue, so causing inflation and disorganising economic life; it especially limits the resources in foreign currency which are indispensable for buying equipment from abroad. Each time that this hindrance is temporarily removed (as during the Second World War), a feverish advance in industrialisation takes place.

It is not the too modest *absolute* amount of social surplus in the colonial and semi-colonial countries that hinders industrialisation. On the contrary, this social surplus is often higher in such countries than in the industrially advanced ones. The UNO publication on Brazil which has already been quoted notes that during the period 1947–53 the incomes of the entrepreneurs and capitalists varied between 85 per cent and 100 per cent of the total incomes of the wage-earners.[104] In Mexico, profits represented in 1950 41·4 per cent of the net national product; in Northern Rhodesia 42·9 per cent; in Chile in 1948 26·1 per cent; and in Peru in 1947 24·1 per cent, percentages equal to or higher than those in the industrially advanced countries. In Egypt, ground-rent profits and interest added up to 62 per cent of the national income of 1950.[105]

Even if these figures include the profits of small peasant enterprises it remains no less true that the surplus is not invested in industry, or is so invested only to an absolutely inadequate extent, which is what accounts for under-development. Among the elements making up this social surplus, the profits *transferred home* by metropolitan countries are substantial. Actually, except for the years 1889–91,

* This gap between prices of raw materials and prices of finished goods is closely linked with the contradictory way in which wages evolve in the two types of country. Since the establishment of strong trade union organisations in the West, nominal wages rise there when there is full employment and remain practically stable when there is unemployment. In the colonial countries, however, wages remain practically stable in boom periods and tend to fall in periods of crisis.

† Paul A. Baran[103] minimises the importance to be attached to the differences in price between raw materials and finished goods as hindrances (or helps) to industrialisation. He notes that a comparatively small share of the revenue produced by the export of raw materials goes to the inhabitants of an under-developed country. He forgets the effect on state revenues, which is very important, and also that on the balance of payments, or, putting the matter another way, the capacity to import industrial equipment. It is interesting to observe that Yugoslavia and Poland have complained about the unfavourable terms of exchange between themselves and the U.S.S.R., which have hindered their industrialisation (see Popović, *Economic Relations Between Socialist Countries*).

profits sent back home exceeded new investments of British capital abroad even before 1914.* At present, they constitute an important proportion of the national income (capable of increasing net investment by 50 to 100 per cent) in a number of countries. Here are some examples:

	Repatriated profits of foreign firms, in percentage of the national income, 1949
South Africa	4
Southern Rhodesia	4
Surinam	5
Santo Domingo	6
Iran	13
Venezuela	17
Northern Rhodesia	27[107]

And the previously-quoted United Nations study of Brazil gives the following picture of profits repatriated abroad, as percentages of Brazil's total savings:

	%		%
1939	4·5	1946	5·3
1940	25·0	1947	4·3
1941	20·0	1948	7·4
1942	18·0	1949	6·6
1943	0·8	1950	6·2
1944	8·9	1951	8·5
1945	16·6	1952	2·8

For the entire period 1939–45 the profits sent home by foreign companies in Brazil, including private profits repatriated by emigrants, etc., came to 735 million dollars.[108]

By blocking the industrialisation of the under-developed countries imperialism not only keeps up the level of its superprofits, counteracting successfully the tendency of the rate of profit to fall. It also creates the possibility, on the basis of its monopoly of productivity, of ensuring for the workers of the metropolitan countries standards of living higher than those in the colonies. Imperialism's boom period from 1871 to 1914 (and in part to 1929) rests on these two pillars. Both, however, are shaken by the results of the contradictions that imperialism has itself accumulated—the Russian revolution and the colonial revolutions.

* According to the Economic Survey of Latin America for 1951–52,[106] investment of foreign capital increased only by 2 billion dollars net in Latin America between 1945 and 1951–52, whereas the repatriation of dividends, interest payments, etc., amounted to 5·8 billion dollars.

Neo-imperialism

On the morrow of the Second World War, the colonial revolution shook the foundations of the imperialist system. In order to continue to exploit the colonial countries the capitalists of the metropolitan countries were increasingly obliged to go over from direct to indirect methods of domination. One after another the colonial countries were transformed into semi-colonial countries, that is, they attained political independence. In general, imperialism retained most of its former economic positions in the newly-independent countries, though it also had to swallow some reverberating nationalisations (the Suez Canal!). Only in countries where *capitalism* also was abolished was imperialist domination destroyed root and branch.

The system of indirect domination—neo-colonialism or neo-imperialism—is not only an inevitable concession by the metropolitan bourgeoisie to the colonial bourgeoisie. It also corresponds to an economic change in the relations between these two classes. The industrialisation of the colonial and semi-colonial countries is an irreversible process. It undermines one of the pillars of the old colonial system—the role of outlets for goods of current consumption which is played by the backward countries. Exports of these goods from the imperialist countries began to fall off, more and more, at first comparatively and later even in absolute figures. It is *exports of capital goods* that more and more take the place of the old type of exports, in so far as the under-developed countries still have to furnish a safety-valve for the tendencies to periodical overproduction which are inherent in capitalist economy. These exports are compatible with a higher degree of political and social independence of the colonial bourgeoisie in relation to imperialism. They even necessitate, to some extent, increased intervention by the State, which alone is capable of setting up large heavy-industrial enterprises in the under-developed countries. Among the imperialist bourgeoisie the interests of those who see the industrialisation of the under-developed countries as the strengthening of a *potential competitor* come into conflict with the interests of those who see it above all the emergence of *potential clients*. Usually these conflicts tend to be settled in favour of the second group, which is that of the big monopolies based mainly on the production of capital goods.

Propaganda for "aid to the under-developed countries" also assumes a special meaning. The exploitation of the "third world" by the imperialist countries goes forward more merrily than ever, as is shown by the deterioration in the terms of trade. But this deterioration deprives the under-developed countries of the means of buying an increasing amount of capital goods from the metropolitan countries. "Aid" to the under-developed countries comes in to make up the growing deficit in their balance of payments—and thus in the last analysis amounts to a *redistribution of profits within the imperialist*

bourgeoisie, to the advantage of the monopoly sectors which export capital goods, at the expense of the "old" sectors (textiles, coal, etc.).

In billions of dollars

	1953	*1954*	*1955*	*1956*	*1957*	*1958*
Importing capacity of the under-developed countries (income from exports less transferred dividends)	11·3	11·6	12·4	12·1	11·3	11·8
Imports from U.S.A. and Western Europe	12·4	13·6	14·8	16·0	18·7	18·0
Net import of capital less private long-term capital	1·6	2·0	2·5	2·9	5·2	5·2[109]

EXPORTS OF MANUFACTURED PRODUCTS TO THE "THIRD WORLD"

(1955 = 100)

	1956	*1957*	*1959*	*1960*
Chemical products	106	122	116	122
Transport machinery and equipment	119	140	138	135
Other manufactured products	109	125	113	108
of which, textiles	101	107	93	90

On balance, "aid" means, moreover, a loss and not an increase in the reserves of the "third world", as it clearly seen from this table:

OFFICIAL RESERVES OF GOLD AND FOREIGN EXCHANGE AT THE END OF THE YEAR, IN BILLIONS OF DOLLARS[110]

	Industrialised countries	*Non-industrialised countries*
1954	37·86	11·74
1955	37·69	11·69
1956	38·56	12·03
1957	39·50	11·34
1958	41·36	10·42
1959	41·75	11·01
1960	44·58	10·50

It goes without saying that the "cold war" has stimulated the movement for aid to the under-developed countries, alliance with the colonial bourgeoisie being the only way in which imperialism can meet the continual strengthening of the anti-capitalist forces in the world. But the change in the structure of world trade to which neo-imperialism corresponds must be regarded as a factor working in that same direction in any case, even regardless of the conflict between West and East.

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CHAPTER FOURTEEN

THE EPOCH OF CAPITALIST DECLINE

Concentration and centralisation of capital on an international scale

FREE-TRADE capitalism was characterised by the world-wide industrial monopoly held by Britain. The passing of this monopoly, as a result of the appearance of a series of other big industrial powers, opened the period of the rise of imperialism. The partition of the world among these great powers made possible for forty years a fresh expansion of the world basis of the capitalist mode of production, not only of world trade and production but also of the trade and production of each of the imperialist countries.

This partition of the world was completed at the beginning of the twentieth century by the division of China into spheres of influence. But the forces impelling capitalism along the road of expansion remained more virulent than ever. The domination of the economy of the big, advanced capitalist countries by the monopolies was accompanied by a considerable increase in the organic composition of capital. Capital was more than ever on the hunt for super-profits. The shrinkage in the spheres not yet penetrated by the capitalist mode of production automatically restricted the possibility of finding new sources of super-profits through export of capital to industrially virgin countries.

The old-established industrial countries consequently became, in their turn, objects of capital's international expansion. Imperialist wars appear as the ultimate method for temporarily resolving the contradiction between the tendency for constant expansion of the basis of the capitalist mode of production and the limits henceforth set to this expansion by the conquest of the world. In these wars the productive forces, stifling within the ever more restrictive national frontiers, "free themselves" in an explosive way.

Imperialist war, which is war both for temporarily resolving the conflicts of international capitalist competition and for changing the allotment of spheres of influence in the world in accordance with changes that have taken place in the balance of strength among the great powers, appears as the main way in which the process of international concentration and centralisation of capital develops. It periodically impoverishes and ruins a section of the world bourgeoisie, in order to enrich and strengthen another section of this same bourgeoisie.

It deprives old imperialist countries of their game reserves and transforms these countries themselves into fields for investment of foreign capital. But at the same time it enables the nascent bourgeoisie of the colonial and semi-colonial countries to carve themselves a modest place on the world market, thanks to sudden interruptions or changes of direction in international trade. Uneven and combined development, which preside over the formation and evolution of capitalist monopolistic groupings, are also characteristic of the whole of economic progress in our epoch. While centralising in a small number of countries the available capital resources, this evolution, far from doing away with inter-imperialist competition, intensifies it both between the "Great Powers" and between the "little ones", which struggle desperately for their place in the sun.

On the eve of the First World War, three great powers were already, owing to their lack of capital, fields of investment for foreign imperialist powers: Russia, mainly for French and Belgian capital, and Austria-Hungary and Italy, for German capital. At the end of the First World War, Germany whose foreign investments in 1913 had ranked third largest in the world, was so impoverished that it became the chief field of investment for foreign capital, once the Reichsmark had been stabilised. Between 1924 and 1929 Germany absorbed 400 million dollars of imported capital each year, as compared with 136 million invested in Australia, 110 million in the Argentine, and 105 million in Eastern Europe. Japan, itself an expanding capitalist power, continued to be an important field for the investment of foreign capital.

The Second World War considerably speeded up this process of international concentration of capital. Britain, which was the leading exporter of capital before the First World War, was compelled to liquidate a large slice of its foreign investments in order to pay for the conduct of the war: this "disinvestment" has been estimated at 17 billion dollars. American capital is moving into Britain on an increasing scale. France, Holland and Belgium have lost part of their foreign investments and also become fields for the investment of foreign, especially American, capital. Japan, after having succeeded in extending the sphere of operation of its capital to the whole of South-East Asia between 1942 and 1945, collapsed and was compelled to open wide its own gates to American capital. The same happened to Germany and Italy. Germany's capital flooded the greater part of Europe and Western Russia between 1940 and 1945, only to be itself flooded with American capital after defeat.

At the end of this process, a small number of "overcapitalised" countries confronts the majority of states, which are henceforth "undercapitalised", that is, have a level of productivity which is less than the world average. The only countries which can nowadays be re-

garded as "over-capitalised" are the U.S.A. and Switzerland, along with (in a merely relative sense) Britain, Holland, Belgium and Sweden.

This state of overcapitalisation is marked:

1. By an annual surplus of capitalisable surplus-value, investment of which within the country itself can no longer bring in the average profit.
2. By monopolies of productivity.
   "Practically the whole oil and petroleum chemicals industry, much of the plastics and the steel and engineering industries employing certain new and important techniques which have been set up or developed in the world during and since the war, pay royalties to American concerns, and are tied for certain critical items of equipment to the American manufacturers and their licensees. It is estimated that the British oil-refining industry alone pays annually several tens of millions sterling to the United States."[1]
3. By an increasing difference in the average age of industrial plant. In 1938 the U.S.A. spent 60 dollars per head of population on the depreciation of fixed capital, as against 50 in Britain and 35 in France and Germany. In 1950 this figure amounted to 140 in the U.S.A. as against 65 in Britain and 40 in France and Germany. Even allowing for the fact that in 1950 a dollar was worth only half what a dollar was worth in 1938, depreciation was proceeding faster in the U.S.A. and more slowly in Western Europe. This situation changed, however, after 1953 and especially after 1957.

According to the United Nations Statistical Yearbook for 1958, of 73 countries whose balance of payments was analysed for the period 1951–57, only six drew more income from their investments abroad than they sent abroad as return on investments within their frontiers. These countries were: the U.S.A. (annual net favourable balance of dividends, interest payments, etc.: 2·5 billion dollars); Britain (265 million dollars); Switzerland (100 million); Holland (65 million); Belgium (35 million); and Sweden (18 million).*

The countries whose annual tribute paid to foreign capital is highest are the following, the figures in brackets showing the annual average net export of dividends during the same period: Venezuela (550 million dollars); Canada (330 million); Australia (220 million); South Africa

* There are a number of borderline cases. France had a net outflow of dividends for the period 1951–54, and a net inflow after 1955; but the country continues to be a net importer of capital on a substantial scale. Portugal has a net favourable balance of dividends, but this is insignificant in comparison with the large imports of capital. The Lebanon and Eire have a small favourable balance, which is due more to remittances sent home by emigrants, or to the return of emigrants, than to capital invested abroad.

(190 million); Iraq (135 million); Brazil (130 million); Mexico (110 million); the Central African Federation (100 million); Iran (90 million); West Germany (68 million); etc.

Relative shrinkage and fragmentation of the world market

The age of imperialist expansion (1875–1914) was the age when a world market was effectively established and international trade expanded on a world-wide scale. The explosion of the inherent contradictions of the system, from the First World War onward, meant at the same time the break-up of the world market, its relative shrinkage and fragmentation.

(*a*) The Russian Revolution of October 1917, and later the expansion of the USSR into Eastern Europe after 1944, and victory of the Chinese Revolution, the events in Korea and Vietnam, and the Cuban Revolution, have deprived the capitalist market of one-third of the world, into which capitalist commodities, and especially capital, can no longer be freely poured.

(*b*) The outbreak and development of the colonial revolution since the Second World War has reduced the outlets for some capitalist products in other parts of the world.

(*c*) The industrialisation of a number of overseas countries, an unavoidable result, in the long-run, of the export of metropolitan capital to these countries, has transformed them from customers into competitors with certain branches of industry in the imperialist countries, especially those which produce consumer goods.

(*d*) The industrial advance of the U.S.S.R. and of a number of countries of the Eastern *bloc* has enabled them to replace the imperialist countries to some extent as trading partners of several under-developed countries, and even of some advanced ones, as is shown by the following table:

	Imports from Eastern bloc *countries, in percentages*			*Exports to Eastern* bloc *countries, in percentages*		
	1938	*1956*	*1957*	*1938*	*1956*	*1957*
Finland	9	25	32	3	27	28
Egypt	10	14	27	10	34	48
Turkey	12	15	16	12	20	21
Ceylon	1	9	4	1	11	11
Burma	—	19	7	—	14	10
Iran	36	10	12	10	17	25
Syria	—	4	7	—	8	22
Iceland	2	26	34	1	30	35[2]

Owing to this relative shrinkage of the capitalist world market, external trade can no longer play the same role of safety valve in relation to the tendencies to overproduction; which are inherent in

capitalist production: exports absorb a smaller proportion of world production than before 1913.

Between 1850 and 1913 the volume of world trade increased by 900 per cent, whereas the income per head of the world's inhabitants was certainly not doubled (allowing for the 60 per cent increase in population). World trade thus apparently absorbed a proportion of world production nearly three times as great in 1913 as in 1850.[3]

On the other hand, between 1913 and 1951 international trade increased in volume by only 30 per cent, while the world's population grew by 40 per cent and income per head of population also increased (even if only modestly, when the under-developed countries are taken into account). Consequently, the volume of world trade rose much less markedly than the volume of world income and production; world trade absorbed a smaller proportion of world production.[4]

Despite the great expansion of world trade during the period 1953–60, this point made by Kuznets retains full validity today. World production of industrial finished products (100 = 1913) advanced from an average of 263 in 1946–50 to an average of 441 in 1958–59; the volume of exports of these same products (100 = 1913) advanced from an average of 100 in 1946–50 to an average of 173 in 1958–59. And even then the latter figure is inflated by the increase in exchanges within the European Common Market.[5]

A very typical example is provided by production of and trade in iron and steel products. Whereas between 1913 and 1950 world production of these products (not including U.S.S.R.) rose to index 229, world exports of iron and steel products (including finished goods) increased by less than 35 per cent. In 1957 iron and steel production was three times what it had been in 1913, whereas world trade in iron and steel products had increased by only 60 per cent.

It is the textile industry that particularly shows the combined results of the industrialisation of the under-developed countries and the structural shrinkage of capitalist world trade. In fact, this shrinkage is no longer merely relative; it has become absolute, and even takes the form of a collapse so far as cotton goods are concerned:

World annual production and export of cotton goods, in millions of yards

	1910–13	*1926–28*	*1936–38*	*1949*	*1951*	*1960*
Production	27,000	31,000	35,500	33,600	39,800	56,520
Export	9,500	8,550	6,450	4,900	5,800	6,480
In percentages	35	27·5	18	14·6	14·5	11·5[6]

At the same time the geographical distribution of production and exports has been profoundly changed, as is shown by the following figures, which relate to the number of spindles in the world (in thousands, only spindles used for spinning raw cotton being counted): [7]

	31.8.13	*1929*	*31.7.36*	*31.7.51*	*31.12.59*
Europe, of which	99,505	104,305	91,227	72,457	57,902
Czechoslovakia	—	3,573	3,562	2,355	1,950
France	7,400	9,880	9,932	8,035	6,071
Germany	11,186	11,250	10,109	6,206*	5,948*
Italy	4,600	5,210	5,442	5,694	4,854
Spain	2,000	1,875	2,070	2,210	2,626
Britain	55,652	55,917	41,391	28,152	14,104
U.S.S.R.	7,668	7,465	9,800	9,850	10,962
America, of which	34,260	39,570	32,841	30,358	28,415
U.S.A.	31,505	34,829	28,157	23,183	20,111
Canada	855	1,240	1,110	1,138	876
Mexico	700	751	862	1,114	1,192
South America	1,200	2,750	2,712	4,772	5,884
Africa	—	—	—	771	1,546
Asia and Oceania of which	9,393	18,836	25,582	22,408	41,668
China	1,009	3,602	5,010	4,250	9,600
India	6,084	8,704	9,705	10,849	13,281
Japan	2,300	6,530	10,867	5,244	13,012
The world	143,449	164,211	151,705	125,994	129,531

If production of cotton yarn has not fallen but increased during the same period, this is due to more intense utilisation of the existing potential and to increase in production per spindle, helped by technical improvements of spindles and rationalisation of mills. It is interesting to note that the U.S.A., which over a long period was the chief beneficiary of the shift in production and export capacity overseas from the countries of Western Europe, is now itself beginning to become a victim of this process. This is also shown in export figures. Since the end of the Second World War, the evolution of the export of cotton goods has proceeded like this in the case of some important exporting countries:

	In millions of square metres					*in hundreds of tons*	
	1947	*1948*	*1949*	*1950*	*1951*	*1954*	*1958*
China and Hongkong	—	—	—	—	—	204	602
Japan	324	417	623	910	836	1,248	1,250
Britain	445	636	756	684	723	708	438
U.S.A.	1,248	786	759	467	675	718	598
India	—	258	390	927	669	897	670
Western Europe	—	—	—	—†	—	1,614	1,362

* West Germany only.
† 104,000 tons.

In order to compare this evolution on the morrow of the Second World War and the situation before 1914, here is a table of the balance of trade (taking into account movements in both directions) of the chief areas of the world, in thousands of tons of cotton goods. (The minus sign stands for a favourable balance of trade, the plus sign for the reverse, i.e. an excess of imports over exports.)

	1913	*1925*	*1938*	*1950*	*1960*
Britain	−576	−377	−135	−59	+39
Continental Europe	−167	−158	−123	−104	−92
U.S.A.	−35	−37	−32	−71	−4
India	+249	+116	+67	−64	−82
China	+181	+127	+2	+4	−50
Japan	−3	−103	−234	−118	−151[8]

True, this evolution has been up to now largely neutralised by the increase in exports of capital goods and what are called "new" products (those of the electronics and chemical industries, synthetic fibres and plastics, optical and pharmaceutical products, etc.). But with the intensification of inter-imperialist competition and the increasing industrialisation of the "third world", more and more sectors will tend to pass into the category of branches of industry whose international outlets are shrinking, first in relation to their total production and eventually even in absolute figures.

The all-round cartellisation of industry

The strengthening of the trusts and monopolies and the dominion they wield over vast sectors of the economy widen the margin between the average rate of profit of the monopolised sectors and the average rate of profit of the non-monopolised ones. Competition between different sectors of industry becomes a dominant feature of capitalism. The non-monopolised sectors are compelled, in their turn, to undertake measures of organisation and regrouping, in order to protect their rate of profit. Their defence consists essentially in the formation of *trade associations* and *cartels*, which embrace the bulk, or even all, of the firms in a particular sector (often under the aegis of the most powerful firms in the given sector). Since the first decade of this century, but especially since the end of the First World War and during the great crisis of 1929–33, the all-round cartellisation of industry has proceeded by way of the formation of trade associations and groupings of employers in particular branches.

In *Germany* the number of cartels grew from 70 in 1877 and 300 in 1900 to 1,000 in 1922, 2,100 in 1930, and 2,200 in 1943.[9] In 1954 it was estimated that 12 per cent of all retail sales in West Germany were made at prices dictated by the supplier to the retailer, which is merely one of the forms of cartel agreement. This percentage comes to 95 per cent in the sewing-machine sector, 85 per cent in that of

tobacco products, 75 per cent in photography, 60 per cent in the radio and TV sector, 45 per cent in drugs, etc.[10]

In the *U.S.A.* trade associations developed from 1911 (Bridge Builders' Society) and 1912 (Yellow Pine Association), with the special aim of communicating to all the members of a given association the information available regarding the costs of production and selling prices of their partners and fixing an "average price" for the particular sector of industry, not forgetting, of course, to include a "reasonable profit". The number of trade associations rose from 800 in 1914 to some 2,000 in 1919.[11]

This development was somewhat checked by a hostile decision of the Supreme Court in 1921 and 1923. The number of trade associations fell rapidly at that time. A revival occurred a few years later, encouraged first by another decision, this time a favourable one, of the Supreme Court in 1925, and above all by the National Recovery Act (N.R.A.) in 1933.

In all, 1,505 trade associations, some nation-wide, others regional, were again to be listed in June 1938.[12] The firm of Stevenson, Jordan and Harrison, administering about thirty trade associations, frankly declaring in a pamphlet dated 1938:

"We must change our laws regulating business, so that each industry will be given the right to form a firm organisation and so govern and control itself . . . Industry, when so organised, must have the right to schedule and regulate production, to allot production between plants and territories and to determine a fair price at which the products of the industry will be offered to the public. New capital desiring to engage in an industry in which the capacity is in excess of production schedules must first secure a certificate of convenience and necessity."[13]

In *Britain* the number of trade associations, the first of which was formed in 1881, reached some 500 in 1919 and some 2,000 in 1956, including 1,300 industrial trade associations.[14] At least a quarter of these associations engage in regulating the prices of their products, according to a P.E.P. study. The British commission for the investigation of monopolies and restrictive practices—a public institution—stated in a report published in 1955 that of the 300 trade associations which it had investigated, at least 16 impose cartel practices on their members, ranging from the fixing of prices to the boycotting of outsiders and the setting up of private courts to judge (sometimes with counsel for the defence!) firms which are accused of breaking the rules of the association.[15] The same report defines in unequivocal terms the origin and purpose of the development of trade associations:

"Before the First World War the main emphasis seems to have been on the prevention of retail price cutting and the method chosen was the collective enforcement of resale price maintenance by means of

stop lists [of retailers who were not honouring the arrangement and to whom supplies were to be refused] . . . Some of the earlier arrangements broke down in the early 1920s under the stress of post-war economic difficulties, and the new agreements made later in that decade were designed to prevent each failure of collective action in the future . . . In the 1930s, again following a period of acute economic depression . . . the majority of the exclusive-dealing arrangements of which we have knowledge were introduced for the first time, while older agreements of a less complex character were often extended and elaborated along similar lines—frequently as a support for manufacturer's common prices."[16]

In *France*, apart from the cartels of monopoly-controlled large-scale industry, in the first place engineering and steel, industrial understandings developed especially in the years between the two world wars. They did not make a real leap forward, however, until after June 1936 and above all under the Vichy government, with its "organisation committees".[17]

Jacques Houssiaux states: "The second feature of the period [1900–50] relates to the all-round adoption of policies of alliance in the various sectors of economic activity. Before 1914, industrial alliances were the exception, though certain firms, for a variety of reasons and for varying periods, sometimes set up joint trading offices. After 1918, and especially between 1932 and 1936, the cartellisation of the economy proceeded by different methods, joint trading offices, consortiums, joint branches for distribution or working-up of products . . . Productive capacity continued to exceed available outlets and thereby the system of alliances became a stable feature of the economy: from temporary they became permanent . . ."[18]

Though not numerous in Japan before the crisis of 1929–30, from then onward cartels developed vigorously in that country. In 1931 they existed in eight important branches of industry, in which they laid down severe restrictions on production, and in 1936 they had spread to sixteen branches of industry, apart from those which were compulsorily cartellised. At the same time the number of exporters' associations increased from fourteen at the end of 1930 to eighty-five at the end of 1935, when they controlled all the main sectors. Finally, the retailers' guilds, the number of which rose from 656 in 1936 to 3,009 in 1939, functioned in effect as buying and selling cartels.[19]

After the temporary "decartellisation" of 1945, the movement was renewed even more strongly: "The legal hindrances having been almost completely removed, the list of cartels has rapidly grown longer during the last five or six years. Their number now exceeds 200. They supervise production, divide up the market, fix prices. Nearly all branches of industry are affected, and competition between the different firms within the big groups is regulated by them. They can now exist in all

the cycles of economic life and even during the periods of prosperity. This is to be seen just now, when the cartels which were formed in 1958 to keep up prices are continuing to function when business has picked up again, and are even striving to bring about some rises in prices."[20]

Effective cartellisation has thus attained a remarkable extent, even in sectors traditionally regarded as the last refuges of "free competition", owing to the comparatively low degree of concentration which is typical of them.

Thus, in the textile industry, the Federal Trade Commission of the U.S.A. in March 1948 accused the Carded Yarn Institute of fixing a common price for its members' products, limiting production, eliminating trade discount and laying down a uniform system of selling conditions, in other words, of acting just like a cartel.

In the same way, in a report published on 14th April, 1954 by Britain's Monopolies and Restrictive Practices Commission, the Federation of Calico Printers was accused of having brought together the producers of 98 per cent of all the cotton printed in Britain and safeguarded this monopoly by fixing prices and allocating production quotas, as well as adopting measures aimed at restricting the growth of productive capacity.[21] In the building trade, in which a predominance of relatively small firms is typical, the situation in the U.S.A. is adequately described as follows:

"The large producers of mill lumber peg prices in the metropolitan area; associations set and maintain base prices for windows, window frames, stairs, banisters, door frames, cabinets and ornamental woodwork. Dealers and jobbers of plumbing supplies are often forbidden to sell directly to the job on penalty of being disciplined. Manufacturers of plumbing and other materials have cancelled trade discounts of jobbers who sell directly to the consumer or to the contractor. One lumbermen's association distributed membership lists to manufacturers and wholesalers who served certain areas and if the wholesaler sold to a non-member he had to pay a penalty or face boycott by council members."[22]

Stocking and Watkins[23] show that in 1939, on the U.S. home market, 47·4 per cent of sales of agricultural products, 42·7 per cent of sales of manufactured goods and 86·9 per cent of sales of mining products involved articles which were directly regulated by cartels, not to mention trade associations.

Parallel with the development of trade associations and all-round cartellisation economico-political employers' organisations have also developed, a form of super-cartel representing the entire capitalist class in relation to the state, the working class, the consumers and other interest-groups. Among these are the National Association of Manufacturers (N.A.M.) in the U.S.A., the Federation of British

Industries (formerly F.B.I. now C.B.I.) in Britain, the Vereinigung der Deutschen Arbeitgeberwerbände, later the Reichsverband der Deutschen Industrie (R.D.I.), and later still the Reichsgruppe Industrie in pre-1945 Germany, the Confédération Nationale du Patronat Français (C.N.P.F.) in France, and the Fédération des Industries de Belgique (F.I.B.) in Belgium, as well as the different associations of Chambers of Commerce.

These organisations not only intervene vigorously in social conflicts, election campaigns or public debates on economic policy. They are to an increasing extent consulted by governments in the actual working out of their economic policy.* At moments of crisis (economic crisis, war, etc.) they become semi-official organs for the practical guidance of the national economy. They even engage in international politics: on 15th–16th March, 1939 the Federation of British Industries and the Reichsgruppe Industrie made an agreement for collaboration in which they undertood to substitute in all fields the fixing of prices by mutual agreement in place of "destructive competition". These organisations realise in themselves, to a large extent, that increasing fusion of the state with the monopolies which is characteristic of the epoch of the decline of capitalism. For, as Brady points out, it is the monopolies that completely dominate these politico-economic organs of the capitalist class:

"As policy co-ordinator for this swiftly unfolding and cartel-like apparatus of trade associations, given an added fillip for more rapid extension of their powers and influence in the current national emergency, the Federation of British Industries takes on a new and far-reaching significance. Commanded at the top by a small coterie of officials who are drawn chiefly from large concerns or from concerns under the influence or control of the giants in their respective fields, and with both officials and controlling concerns bound together by an infinity of interconnections—personal, family and institutional—into a tightly meshed business oligarchy vested with political powers of propaganda and coercion, this is the British pattern in the making . . ."[25]

* The P.E.P. study already quoted had a lot to say about this "representative role" played by employers' associations. It declares that a certain number of under-secretaries of state concerned with production spend about half their time in direct or indirect discussion with trade associations!

A German specialist says, similarly: "Very often . . . consultations with representatives of the interests which would be affected by certain bills take place already at the preliminary stage, long before drafts of these bills are placed before the Cabinet or the legislature. Consultations also take place with the appropriate parliamentary commissions, and, when necessary, with the appropriate authorities in the Länder governments, even before the bills are tabled. But it is not infrequent for talks with interest-groups to take place before any others and especially for these discussions to be more thoroughgoing."[24]

Forced cartellisation

All-round cartellisation of industry is more and more the indispensible condition for the safeguarding of rates of profit in the non-monopolised sectors. But all-round catellisation is possible only if all the firms in a given sector agree to it, or can be obliged to agree through discrimination or boycott. If these measures of economic compulsion prove inadequate, especially if the recalcitrant firm happens to be the strongest in the sector, there is nothing to be done but to bring into play political compulsion, compulsion by the state. Since the crisis of 1929–33, intervention of the state as "regulator" of the economy, giving the force of law to decisions of private cartels and thus transforming them into forced cartels, obligatory alliances, etc., has manifested itself in most capitalist countries. It has once again revealed the nature of the state, as defender of the general interests of the bourgeoisie, if need be against a recalcitrant individual bourgeois.

There had already been precedents for this in *Germany*. At the request of the big trusts, a law of 1910 laid down compulsory cartellisation of companies producing potash. Then, in 1920, came the compulsory grouping of firms in the steel industry. After the outbreak of the great crisis, compulsory cartels were formed in the sugar industry and in shipping on the Elbe.[26]

It was, however, immediately after Hitler's coming to power that obligatory cartellisation was made general, by the law of 25th July, 1933. Then, on 27th November, 1934, groups were set up in each sector *(Reichsgruppen)*, most of them being led by one of the chief monopolies. These alliances possessed a far-reaching power of coercion, which included the right *ex-officio* to close down firms which did not conform to regulations or which were merely regarded as "redundant" in relation to the market's absorption-capacity.[27] The *Frankfurter Zeitung* of 22nd August, 1943 wrote that "the link, in terms both of persons and of office, between the cartels and the 'groups' goes very far . . . The authorities utilise both forms of organisation as organs for official and semi-official measures of rationing."[28]

After the revival of capitalist economy in West Germany in 1948, the government increasingly restored the practice of "authorised" cartels within the framework of a new law on cartels. Thus, milling and soap-making, for instance, were cartellised with the backing of the law.[29]

In the *U.S.A.*, immediately on Roosevelt's coming to power in 1933, the National Industrial Recovery Act (N.I.R.A.) was promulgated, by which the state empowered trade associations to work out and apply compulsorily "codes" which determined the permissible limits and forms of competition within each sector. Stocking and Watkins show that these codes were usually the work of "trade association officials or of dominant personalities within the industry."[30]

According to A. R. Burns, of the 677 codes promulgated, three included a direct restriction of production in a particular branch of industry, 60 an indirect restriction (ceiling of hours of work to be provided by the factory), 560 fixed minimum costs, 403 prohibited sales below cost of production.[31] Stocking and Watkins are thus right in claiming[32] that the codes "stabilised" business, under governmental constraint, in favour of the vested interests of the big firms.

In *Italy* a law on cartels dating from 1932 authorises the government to set up compulsory cartels in any branch in which 70 per cent of the firms (or firms which represent 85 per cent of production) ask for it. At the same time, the establishment of new firms was made subject to the granting of a government licence from 1933 onward, and applications for licences were often refused (37 per cent in 1939, 47 per cent in 1940, 59 per cent in 1941, 70·6 per cent in 1942).[33]

In *Britain* the Coal Mines Reorganisation Act of 1930, amended in 1936, set up an obligatory cartel in the coal-mining industry.[34] The Cotton Industry Board, set up in 1939, concerned itself especially with eliminating competitors who made a nuisance of themselves by cutting prices. In 1935 a compulsory cartel was set up in the sugar industry and in woodwork, and on 20th November, 1935 a compulsory cartel for the herring-fisheries was established.[35] When the great crisis of the cotton textile industry came in 1957–58 similar measures were taken, in order to ensure that productive capacity was reduced.

In *France* in 1934 the conservative deputies P. E. Flandin and Marchandeau tabled a bill for the setting-up of compulsory industrial groupings; it was to compel competitors to submit themselves to industrial groupings even if they did not wish to join them. Even before the bill had been voted on, a decree set up this régime of obligatory groupings, in the footwear industry, sugar-making, milling, herring-fishing and the big sea-fisheries.[36] After the defeat of 1940 the Vichy régime proceeded to make this system universal. The "organisation committee" of the various industries which were set up in 1940 "were often headed by the chairmen of big firms".[37] In a number of cases they merged with the cartels, and ended by mostly falling under the control of the trusts.[38]

In *Japan* a law of 1st April, 1931 explicitly authorises a certain number of manufacturers, being grouped in cartels in a given branch of industry, to impose their decisions on all the firms in this branch, under conditions convenient to the trusts. In January 1936 there were already twenty-four agreements of this kind, each of the cartels dominating an entire branch of industry. The agreements provided for the restriction of production, the fixing of selling prices, the determination of the volume of sales and the allotment of shares of the market between firms. In August 1937 the law on industrial associations was made general in its application. These associations now received full

powers. They inspected and regulated production, fixed *ex-officio* the prices at which all their members had to sell their goods, and organised joint buying and selling, and even joint utilisation of industrial equipment. State control over their decisions was effected *a posteriori*. During the war, they undertook the allocation of raw materials in short supply and assumed more and more public functions.[39]

In October 1941 and August 1942 decrees were published for the carrying through of obligatory cartellisation, as proposed already in July 1940 by Prince Konoye's cabinet. Associations were set up in the chief branches of industry in order to regulate their entire activity. The heads of these associations were without exception the heads of the cartels which the entrepreneurs had themselves formed in the branches in question.[40]

In his article already quoted, Robert Guillain says of the period after 1950: "The anti-cartel commission formed in 1948 became little by little the regulator and organiser of cartellisation, and its powers even ended by passing into the hands of the strongest supporters of the movement, the offices of the Ministry of Trade and Industry. Increasing government control has been established over the economy, but very often the way it functions is neither impartial nor favourable to the cleaning-up of the market and the interests of consumers."[41]

In *Belgium* a law of 31st July, 1934, completed by a royal decision of 13th January, 1935, made cartels and industrial groupings compulsory for "outsiders", if the undoubted majority of the producing or distributing interests demands it", and if the state agrees to this demand for regulation. Between 1935 and 1952, ninety-five requests of this kind were submitted, sixty-five before 1942 and thirty after that date. One-third of these requests came from the distribution sector, and were all rejected. The other two-thirds came from various branches of industry, and of these about twenty were accepted, bringing several hundreds of firms under control and also very often subjecting them to a restriction of production.[42]

The bourgeoisie and the state

Compulsory cartellisation, the direct intervention of the public authorities in favour of threatened sections of the capitalist class, may seem a revolutionary heresy if one judges the historical attitude of the capitalists towards state intervention solely by the criteria of Adam Smith's theories or the creed of the free-trade school. However, the doctrine of *laissez-faire* is only a stage in the development of bourgeois ideology; it has meaning only for a particular phase of capitalism and for a quite limited geographical area.

At the risk of over-simplification, we can say that, when the bour-

geoisie is weak it always seeks salvation in protection by the state, that is, in the hope that, through the agency of the public authorities it may succeed in benefiting from a redistribution of the national income which will reduce its risks and increase its profits. Only when the bourgeoisie is strong and full of confidence in its strength and its power to overcome obstacles by its economic superiority alone does it freely denounce all state-interventionism and seek to cut down to the bone the state's financial resources.

The evolution which leads from mercantilism and the strong state to liberalism and opposition to the strengthening of the army or acquisition of colonies is well known as regards Britain, France and Germany. Henri Hauser has recalled that the call for protectionism and pre-mercantilist doctrine appears in France as early as the sixteenth century, curiously mixed up with echoes of medieval corporations (that is, craft protectionism).[43] In German economic doctrine the direct link between the medieval ancestor and present-day capitalism is even clearer where protectionism is concerned.

There is no need to recall, moreover, how much the primitive accumulation of capital was fostered not merely by protection but also by the exploitation and systematic plundering of the state treasury. War supplies, public debts, luxury trades, tax-farming, colonial enterprises, all these were, in the sixteenth and seventeenth centuries the regular channels along which the incomes of various social classes were drained off to the advantage of the bourgeoisie and transformed into constituent elements of commercial, banking and industrial capital.*

Contemporary experience in the under-developed countries has curiously revived this historical experience, but in a completely changed context. Nevertheless, it is striking to observe to what extent the state and "statism" in these countries, far from being "anti-capitalist" in nature, are real foci for the rise of the bourgeoisie, the formation of capitalist enterprises and even of bourgeois families. The outstanding example in this connection is that of Japan, where modern industry was created from scratch by the state and at the state's expense, then sold for a song to the young industrial bourgeoisie:

"Initially, the state itself spearheaded the industrialisation process by pioneering and financing new undertakings over a broad front. In the decade after 1868 it built and operated railways and telegraph lines. It opened new coal mines and agricultural experimental stations. It established iron foundries, shipyards and machine shops. It imported foreign equipment and exports to mechanise silk-reeling and cotton-spinning. It set up model factories to manufacture cement, paper and glass. Many new western-style industries thus owed their start to government initiative. The state shouldered the early risks,

* See Chapter 3, particularly the passages referring to the role of the state as provider of forced labour for the manufactories.

pioneered technical advance, and patronised many private ventures which followed on its heels . . . Most of the state's industrial properties were soon disposed of at prices low enough to attract ready buyers."[44]*

Generally speaking, the industrialisation of a number of under-developed countries is today favoured by government initiatives connected with subsidies, gifts pure and simple, or extravagant guarantees according to private industries.

Thus the Sümer Bank (Investment Bank) of Turkey; the Bank Industri Negara and the Bank Rakjat Indonesia in Indonesia; the Industrial Finance Corporation in India and the institution with the same name in Pakistan; the Industrial Bank of Egypt; the Nacional Financiaria of Mexico and many other institutions of the same sort are the chief agencies of industrialisation in their respective countries. Except for the Indonesian institutions, which are virtually nationalised, these are mixed enterprises, in which half of the capital has been provided by the state and the other half by the private sector (or by international bodies), but under the state's guarantee.[46] In Brazil the state's share in the gross formation of capital varied between 30–39 per cent in 1948–52

The decisive role of the state guarantee in the development of private industry is stressed in a United Nations publication: "It is probable that some of the success in raising local capital which has been achieved by some development corporations is attributable at least in part to their links with government. It is argued by small investors, not always with justification, that the government is not likely to allow an industry sponsored by an official development corporation to fail. The apparent security of such an investment is sufficient to attract those who would not be interested in a pioneer industry promoted entirely by a private entrepreneur. More deliberately, governments have occasionally attracted private capital into approved industries by means of a guarantee of minimal dividends. The Bazalkot cement plant in Bombay, India, for example, was built by an ordinary limited liability company in 1948 after the Government had undertaken to guarantee a minimum dividend of 3 per cent a year for a period of five years."[48]

In fact, the birth of an industrial bourgeoisie in the under-developed countries is the combined result of state contracts, state encouragement in the form of guarantees, and plundering of the state treasury (particularly by corrupt civil servants and politicians).[49] It has been

* The same writer notes, moreover,[45] that the peasantry paid for this accumulation through increasing indebtedness and that primitive accumulation does indeed imply a transfer of income:

"High rents, interest on the mounting farm debt, and government taxes channelled a large share of agricultural income into the possession of financial institutions, urban landlords, and the state treasury."

alleged that Colonel Batista amassed the colossal fortune of 200 million dollars during his second term as dictator in Cuba, while the vice-president of South Korea under Syngman Rhee amassed 50 million.

This "statism" of the under-developed countries is closer to the economic "statism" of Europe from the sixteenth century to the beginning of the nineteenth (or to the "statism" of Central and Eastern Europe in the second half of the nineteenth century and the beginning of the twentieth) than to present-day "statism". The growing intervention of the state in the economy of the industrially advanced countries takes, indeed, a different form.

Like the "statism" of the under-developed countries, *it is basically capitalist, that is, it does not tend to the abolition but rather to the strengthening of the wealth and power of the bourgeoisie.* This differentiates it radically from the nationalisations which were carried out in the U.S.S.R. and also in Eastern Europe, China, North Korea, North Vietnam and Cuba after the Second World War. But unlike the "statism" of the under-developed countries, the increasing state intervention in the economy of the industrially advanced countries does not serve to foster the primitive accumulation of industrial capital, the *rise* of capitalist industry, but on the contrary to keep alive and ensure a certain amount of growth by a capitalism which is passing *from maturity to decay.* The former is the forceps which facilitates birth; the second is the scalpel which removes a tumour that reappears with disturbing regularity.

The state as guarantor of monopoly profits

Monopoly capitalism sees part of the normal machinery of the system more or less constantly stopped from functioning. Monopoly superprofits presuppose a certain restriction of production, and so of investment; but, the external outlets playing less and less the role of safety-valve after the First World War, and especially after the Second, the over-capitalisation of some sectors (and countries) exists alongside the under-capitalisation (and under-development) of other sectors and other countries.

Furthermore, technical progress demands initial investments of ever-increasing dimensions, and at the same time there is less and less opportunity for exploitation of it in a way which will be profitable fully and for a long period. The comparative plentifulness of capital thus exists side by side not only with under-developed countries but also with technical innovations which are not used productively. The normal functioning of the capitalist mode of production makes less and less possible the profitable use of all capital, which is the very *raison d'être* of capitalism. The system seems to have got stuck in a blind alley.

It is in this blind alley that monopoly capitalism turns more and

more to the state, in order to secure by state intervention in the economy what the normal working of the latter can no longer secure for it. *The bourgeois state becomes the essential guarantor of monopoly profits.**

1. *The state takes responsibility for the unprofitable basic sectors of the economy.*

This taking over by the state results in a fall in the selling price of electric power or of fundamental raw materials, which in its turn makes possible a cut in costs of production, increase in competitive capacity and growth in the rate of profit in the sector of industry which produces heavy finished goods (machines, electrical apparatus, means of transport), the backbone of present-day big capital.

The nationalised companies are, moreover, dominated to a large extent by representatives of the private sector. This is clearly illustrated by the example of Britain:

Out of 272 seats on the boards of Britain's nationalised enterprises, 106 were occupied in 1956 by directors of private firms (of whom forty-nine were directors of private insurance companies and thirty-one were bank directors). Furthermore, there sat on these boards seventy-one technical directors of the nationalised enterprises themselves, whose extremely high salaries are a catalyst of bourgeois opinions (the chairman of the British Transport Commission receives £8,500 a year, the chairman of the National Coal Board £7,500, the chairman of the Central Electricity Authority £8,500, and so on).

The nationalisation of the coal-mines in Britain and France, the nationalisation of the electric power industry in these countries, the nationalisation of oil and electric power in Italy and of iron-mines, oil and electric power in Austria; the establishment of nationalised coal-mining in Holland, measures adopted either by governments of the left or by governments of the right, or of "national unity", all pursued the same end, that of ensuring lower costs of production for the transformation industries. They were accepted almost unanimously by the employers. If, later, one or other of these measures has formed the subject of public polemics by the bourgeoisie, this is usually to be explained by divergences of interest between quite definite sections and not by a general opposition to nationalisation as such.

Another typical instance of the same sort is that of the foundation of the Hermann Goering Werke in July 1937 in Germany. Its purpose was to exploit iron mines where the ore was too poor to give a profit. Private working of these mines would have necessitated an increase

* "This growing interference by the State in economic life thus results in *freeing* first the individual businessmen and eventually the *businesses* themselves from certain risks. Economically, this attitude is equivalent to a *principle of insurance.*"[50]

in the customs due on imported ore, which would have cut into the profits of the big manufacturing industries.

The foregoing does not in the least mean that nationalisation of sectors of industry necessarily corresponds *only* to the interests of the dominant groups of the bourgeoisie. It can, on the contrary, constitute a veritable *school of collective economy*, provided that the compensation payments to capital are reduced or cancelled, that it is not limited to sectors run at a deficit, that the representatives of private capital are removed from the management, that workers' participation in the management is ensured, or that this management is subject to democratic workers' control, and that the nationalised sectors are used by a workers' government for the purpose of all-round planning, especially to achieve certain objectives of high priority, either social (e.g. a free health service) or economic (e.g. full employment).

2. *Refloating of capitalist enterprises in difficulty*

This phenomenon is often accompanied by a "re-privatisation" of enterprises which were nationalised when they were not profitable. In both cases it is a matter of *nationalising losses* while *restoring profits to private ownership.*

Thus, after the big bank crash in 1931, the Weimar Republic acquired 90 per cent of the shares of the Dresdner and Danat banks, 70 per cent of those of the Kommerz und Privatbank, 35 per cent of those of the Deutsche Bank; in 1937 all these shares were handed back to the private banks, as soon as they were making good profits.[51]*

Similarly, the Nazi régime handed over to the private sector its shares in the Vereinigte Stahlwerke, various shipyards, and shipping companies such as Hapag, and restored to private ownership municipal gas and electricity companies.[53]

3. *Transfer to private trusts of public property or of enterprises built with public money*

The most flagrant case is that of the enterprises built during the Second World War by the U.S. Government. Out of a total of new plans usable in peacetime valued at 11·5 billion dollars, 77·4 per cent were managed by the big trusts, which had first option rights when it came to selling them.[54] Most of these plants were in fact sold to the trusts in question.

Typical are the case of the Geneva steel works, handed over to the U.S. Steel Corporation, and that of the synthetic rubber factories, mostly handed over to the rubber trusts (Goodyear, Goodrich, U.S. Rubber, Firestone) and oil trusts (Esso Standard, Gulf Oil, Texas Oil

* Professor Ritterhausen states that this refloating obliged the government to liquidate reserves of gold and foreign exchange, thus causing long-term inflation.[52]

Company, etc.). Some of these factories were sold at a fraction of the cost of construction. Thus, the butane factory at Kobuta (Pa.) cost 49 million dollars to build, and went to the Koppers Company for two million; the butylene factory at Baton Rouge (La.), which cost 25 million dollars, went to Esso Standard for 15 million, etc.[55]

In Britain the factories built during the war suffered the same fate. Nazi Germany worked out a particularly subtle system for financing the expansion of firms regarded as being "indispensable for national defence" by means of public or private funds giving no right to shareholding: the system of *Gemeinschafts-finanzierung* (community financing).[56]

In the same connection the case of the nuclear power industry in the U.S.A. calls for mention. From the start of the governmental nuclear research programme, carried on exclusively at public expense, a dozen trusts were associated with this work and were thus able to accumulate considerable knowledge which gave them an enormously privileged position in relation to their competitors, and all for nothing! These trusts were E.I. Du Pont de Nemours, Allied Chemical and Dye, Tennessee Eastman, Dow Chemical, American Cyanamide, Monsanto Chemical, Kellex Corporation, Westinghouse Electric, Carbide and Carbon, and General Electric (the latter managing the Handford factories over a period of several years).[57]

In 1954 the Nuclear Power Act practically transferred a sector of the public domain worth 12 billion dollars—all the technological and scientific information in the nuclear sphere—to private trusts which could turn it into money and capitalise it as they pleased:

"The Atomic Energy Commission is directed to assume a major role in assisting the acquisition of atomic knowledge by others. Stripped of euphemism, this means that a major part of the real pioneering work in the field will probably still be done at government expense, while 'private enterprise'—relieved of substantial risks and rewarded with ample 'incentives'—will probably get most of the benefits."[58]

The same writers describe moreover how this system actually functions. The nuclear material put into a private atomic reactor remains the property of the U.S.A., as does the material extracted from the reactor. The Atomic Energy Commission thus "sells" the "nuclear fuel" and "buys back" the plutonium "ashes".

"Therefore, as the Federal Power Commission informed Congress, the government 'may pay more for the ashes than it charges for the fuel'. Thus, the government may subsidise the electric utilities and others developing atomic energy by paying their operating costs. Furthermore, there is no provision for recapturing any excess profits earned in the process."[59]

4. *Direct or indirect subsidies granted to private firms*

The list of direct and indirect subsidies, including exemption from taxes and other fiscal privilege, granted by governments to private firms in the principal capitalist countries during the last thirty years would by itself fill a large volume. We shall confine ourselves to mentioning a few of the most typical examples.

In the U.S.A. the government grants permanent subsidies to airlines and shipping lines and also for shipbuilding. According to a statement by the U.S. Post Office, the postal rebates allowed to five big weeklies or reviews cost the government 25 million dollars a year.[60] Accelerated depreciation, based on "certificates of necessity for national defence", made it possible for 20 billion dollars of investment carried out by American industry between 1950 and 1954 to be effected under conditions of large-scale tax-reduction. Ninety per cent of these investments were made in big enterprises.[61] The extra profits thus realised through exemption from taxes amount to several billion dollars.

Similarly, the law on the "exhaustion of natural resources" which enables the big oil firms to keep back part of their income in order to carry out searches for new oil resources, has increased the net income of these firms by several billion dollars, through exemption from taxes. It brings them in at present between 700 and 750 million dollars *a year*.[62]

As regards war supplies, these are provided under contracts which guarantee substantial profit-margins to the trusts. Thus, during the war in Korea, the Detroit Ordnance Center bought 1,000 generators of a certain type from the Chrysler Corporation, at a price of 77·20 dollars each, instead of buying them from Electric Auto-Lite, who had made them and sold them to Chrysler for . . . 52 dollars each! Under this strange régime of "free competition", Electric Auto-Lite itself had refused to supply them directly to the state for less than 87 dollars each![63]

5. *Explicit guaranteeing of profit by the state*

This guarantee is of particularly great importance where supplies to the state, public works and regulation of prices are concerned, increasingly important features of the economy in the age of capitalist decline, marked by an expanding state sector and by the increasing importance of the armaments industry.

The entire economic recovery of Nazi Germany was financed by bills *which the state guaranteed would be honoured*. This means that all the entrepreneurs working for recovery had their profits guaranteed to them.[64] When the Third Reich developed the synthetic rubber industry it made with the firms involved what were called " 'profitability guarantee contracts' (*Wirtschaftlichkeitsgarantieverträge*) which guaranteed costs (including a margin of 'reasonable' profits) and a

certain volume of sales. Because of the newness of the process and the magnitude of the physical plant involved, obsolescence and depreciation represented a prominent element of cost; allowance was also made for amortization of the capital investment represented by the credits."[65]

When the Hermann Goering Werke was founded, 130 million RM of shares were sold to banks or "economically interested circles"; they paid a dividend guaranteed by the state.[66] The various Nazi decrees fixing prices (notably the Ordinance of 26th November, 1936, that of 21st November, 1938 on public contracts and that of 4th September, 1939 on wartime economy) all provided explicitly or implicitly for a "reasonable profit".[67]

In the U.S.A., for 25 years, the oil and sugar industries have been practically assured of a permanent profit, thanks to the policy of restrictions on production enforced by the state authorities.

"Every month the Bureau of Mines estimates probable demand and state regulative commissions tell oil producers in their respective states how much crude oil they can bring out of their wells. The scheme is intended to assure that the oil, brought above ground, shall (when imports are added) correspond substantially to the American demand. The plan has worked successfully for two decades. The American sugar industry follows somewhat the same plan, though the mechanics are different; since supplies of raw sugar are chiefly outside the United States, the adjustment of supply to demand is accomplished by the Secretary of Agriculture, who has been given power to fix the quota of raw sugar which may be imported."[68]

The aim of this policy of restricting oil production is obviously to ensure that the big oil trusts get "reasonable" prices and profits.[69]

For everything relating to the production of armaments or work on government account, the U.S.A. has many times provided "guarantee of private debts, private investments, returns on private capital and private contracts without a commensurate reduction of prices to the public. The effect is to socialise the risks of private capitalism without a corresponding diminution of returns."[70]

The new legislation on the export of private capital provides for a guarantee by the state or by semi-public organs (the administrations of the E.C.A., M.S.A. or F.O.A.) for private capital invested abroad. This system was used, for instance, to guarantee the purchase of 50 per cent of the shares of the German rubber trust Phoenix Werke by the American Firestone trust.* When price-freezing was reintroduced in the U.S.A. during the "Korean war boom", the Office of Price Stabilisation laid it down as a rule, on 18th February, 1952, that the prices

* A large number of loans granted by the World Bank of Reconstruction and Development to private firms were guaranteed, wholly or in part, by governments or semi-public institutions.

frozen had to include a profit margin of 10 per cent on net capital, before tax.

A new aspect of the state guaranteeing of profits is *export risk guarantee*. Intensified international competition implies that big international orders, especially for capital goods, but often also for consumer goods, are nearly always placed on credit. The majority of governments cover a large proportion of the resultant risk, and allow similar insurances to be given by semi-public institutions. The *Wirtschaftsberichte* of the Rhein-Main Bank[71] give the following table of legislation in force in this connexion in four countries of Western Europe in 1953:

> *German Federal Republic:* credit insurance at very low rates: 0·4 to 2·5 per cent guarantees against loss up to 60 to 85 per cent.
> *France:* insurance against loss, including the consequences of monetary and political "disasters" in the importing country, to the amount of 80 per cent; the insurance includes the risk of "advertising losses".
> *Britain:* state cover for risks, up to 85 to 90 per cent; insurance premiums of 0·25 to 0·50 per cent. Here too the risks covered include advertising expenditure, contract charges, removal charges, etc.
> *Holland:* state insurance of export credits; cover of 75 to 90 per cent of possible loss; the state further guarantees to the exporter the restitution of 50 per cent of his costs incurred in making enquiries, establishing contact, travelling, advertising and storing goods in the foreign country.

Increasing fusion between state and monopolies

The state thus becomes to an increasing extent an indispensable instrument for the monopolies. The realisation of profit—and not just the average profit, but the super-profit which they regard as their right—can no longer depend on the mere working of "economic laws"; the state's economic *policy* must, when necessary, render these very "laws" harmless,* when their operation threatens the profits of the monopolies. This close co-operation between the monopolies and the state is not at all the result of "submission of the economy to the state". On the contrary, it expresses the submission of the state to the monopolies, through increasing personal links between the leading figures in the state and the heads of the big monopolies, in person.

The United States is the country where this fusion between the state and the big monopolies has attained its highest point. The majority of the politicians occupying key positions in the American economy have, for a long time now, been big business-men.

The successive heads of the War Production Bureau have been Knudsen, of the General Motors trust; Donald Nelson, of the Sears Roebuck trading trust; Charles A. Wilson, of the General Electric

* Wage-freezing always occurs in periods of full employment, never in periods of crisis!

trust. Among the chief men of the E.C.A., Paul Hoffmann was a former chairman of the Studebaker motor-car trust and W. Averell Harriman one of the biggest railway magnates of the United States.

Edward R. Stettinius, Jr., who administered Lease-Lend (predecessor to the Marshall Plan) before becoming Secretary of State in 1945, was a former vice-chairman of the United States Steel Corporation. Robert A. Lovett, who was originally the mentor and right-hand man of General Marshall as Secretary of State, was a typical representative of Wall Street. He was made head of one of the biggest railway trusts, Union Pacific, in the interval between two government appointments. Another member of the Truman administration, the man in charge of finance, John W. Snyder, was likewise a typical representative of Wall Street, having been vice-chairman of the First National Bank of St. Louis. His predecessor, the banker Henry Morgenthau, Jr., was soon afterwards appointed chairman of the Modern Industrial Bank. James Forrestal, Secretary for the Navy, then Defence Secretary, between 1941 and 1949, was a banker, head of the powerful investment firm of Dillon, Read and Co. Louis A. Johnson, Forrestal's successor as Defence Secretary, was head of Consolidated Vultee Aircraft, whose B.36 and B.45 aircraft have become the foundations of American strategy.[72] C. Wright Mills[73] has analysed along similar lines the leading men of the Eisenhower administration.

In *Britain*, "Simon Haxey", in his book *Tory M.P.*[74] notes that of the 415 M.P.s who supported the "National" (Conservative) Government before 1939, 181 held 775 directorships in joint-stock companies. Lord Runciman, many times Minister between 1908 and 1937, was a director of one of the big six banks of Britain, the Westminster, of the London, Midland and Scottish Railway, and of a number of other trusts. His father left him an inheritance of £2,400,000. Viscount Horne, Minister of Labour, President of the Board of Trade and Chancellor of the Exchequer between 1919 and 1922, was a director of Lloyds Bank; Lord Stanley, a Minister until he died in 1938, was a director of Barclays Bank; Sir John Anderson, a Minister in the War Cabinet and in the Churchill Government of 1951, was a director of the Lever Bros. trust. Harold Macmillan, a Minister in several Cabinets and eventually Tory Prime Minister, was a director of a big railway trust and continued to own the great publishing house that bears his name; the three Conservative Premiers of the inter-war period, Bonar Law, Baldwin and Neville Chamberlain, were connected with the steel industry, and particularly with the Vickers trust. L. S. Amery, a Minister in the Chamberlain Cabinet, was a director of the Cammell Laird arms trust.

In December 1938 the British Government appointed a six-man committee to supervise the carrying-out of the rearmament programme. The committee consisted of six heads of monopolies, namely:

J. S. Addison, managing director of the Courtauld synthetic textiles trust;
Sir George Beharrell, chairman of the Dunlop rubber trust;
F. F. B. Bennett, director of Imperial Chemical Industries;
J. O. M. Clark, chairman of J. and P. Coats, Ltd (thread);
Sir Geoffrey Clarke, director of P. & O. Steam Navigation;
F. D'Arcy Cooper, chairman of Lever Bros. and Unilever.

In *Germany*, according to Neumann, among the 173 heads of the "Reichsgruppen", "Transportgruppen", "Wirtschaftsgruppen" and "Industriefachgruppen", there were 13 representatives of public institutions, 9 officials, 93 big capitalists and 56 persons whose background is not known. The head of the Reichsgruppe Industrie was Wilhelm Zangen, head of the Mannesmannwerke steel trust and member of the board of the A.E.G. electric apparatus trust. The Reichsverband for coal, set up on 20th March, 1941, was run by a group of big monopolists: Von Bohlen, Flick, Knepper, etc.[75] When in 1943 Speer organised Hauptausschüsse ("general committees") to supervise all industry the heads of these bodies were mostly representatives of big trusts, e.g. the aircraft construction section was headed by Frydag, representing Henschel Flugzeugwerke; the naval shipbuilding section by Blohm, of Blohm u. Voss shipyards; the tank-building sector by Rohland, of Vereinigte Stahlwerke; the aircraft equipment sector by Heyne, of A.E.G.; the mechanical engineering sector by Mauterer, of the Hermann Goering Werke; the chemical warfare sector by Ambros, of I. G. Farben; the military and general equipment sector by Zargen of Mannesmannwerke; the optical and precision engineering sector by Küppenhender, of Zeiss; the electro-technical sector by Bauer, of Siemens.

In *France*, when the Vichy "organisation committees" were dissolved, the Government handed over all their archives to the employers' organisations. In 1946 the latter set up a "centre for administrative and economic studies" which made it its business to "organise" the elections. In 1951 a list was circulated in the French Assembly of "the 160 deputies who were helped in their election campaign by the Rue de Penthièvre". "The best known representatives of the trade associations are confident of obtaining easily, often after one short interview, administrative decisions which are "made to measure" from industry's point of view", writes Ehrmann. And so on.[76]

The direct participation of the big trusts in "day-to-day" politics —a phenomenon the beginnings of which are to be found at the very start of this century, or, in the case of certain big financiers, even during last century—has been codified by a number of monopolies, in Europe as well as in the U.S.A. The Gulf Oil trust declared recently:

"Gulf and all other American firms are in politics up to their necks,

and we have to start to swim in this element, or we shall drown in it."[77]

The Hamburg weekly *Die Zeit* wrote, no less suggestively:

"Tourists are shown the Parliament building in Bonn, and told: 'Here the laws are made'. They are shown the Schaumburg Palace and told: 'Here is the office of the Federal Chancellor; from here the country is governed'. They are perhaps also shown, as they walk along Koblenzstrasse, this or that big building erected by a powerful trade association. But undoubtedly nobody tells them: 'In these buildings and others (some of which are not very impressive to look at) sit individuals who, though, of course, they do not make the laws, have to ensure that everything that is done conforms to the wishes of their principals'."[78]

It will be realised that, given these conditions, Professor Galbraith's theory of "countervailing power", according to which a sort of equilibrium prevails between the state and the trade unions, on the one hand, and the employers' associations on the other, is quite illusory. This equilibrium exists only in order to prevent any profound change taking place in the established conditions of ownership and power. The result of this equilibrium is *the status quo of the monopoly structure*, each reform secured by the workers' organisations being more or less rapidly neutralised by advantages given to their class adversaries.

The (bourgeois) experts who are best-informed readily recognise this fact, moreover. Thus, Jacques Houssiaux: "Present-day examples show that countervailing powers are in reality incapable of limiting the monopoly power of the big firms. Some measures amount to a mere transfer of authority . . . others set up new institutions which compete with big business but are closely-related in their nature . . . Others, finally, lead to *a rapid power-osmosis between the big firms and the institutions charged with supervising them*: the experience of the organisation committees, after 1940, recalls this. The effectiveness of anti-capitalist measures is thus legitimately subject to doubt."[79] And Professors Adams and Gray have described even more clearly the nature of this "osmosis": "Countervailing power is, at best, a supplement to—rather than a substitute for competition. It cannot long survive in the absence of competition, nor does its operation afford any clear and administratively feasible guidelines for public policy, and moreover, countervailing power is frequently subverted by vertical integration, collusion and top-level financial control. The suggestion that these inherent defects can be remedied by governmental intervention on behalf of the weaker party . . . is quite unrealistic. It rests on the untenable assumption that government is an autonomous, monolithic, self-contained organism—that political power always checkmates economic power by intervening on the side of the

underdog. Unfortunately, this is no more than a fond hope. Experience indicates that economic interest groups are today largely politicised units, making their claims upon and through the institutions of government. Experience demonstrates that all too often economic power attracts, even demands, the support of political power . . ."[80]

C. Wright Mills has shown in masterly fashion, in *The Power Elite*, that for the United States of today the words "too often" must be replaced by the word "always". And Professors Adams and Gray themselves explain, moreover, why this is so:

"Those who seek to consolidate economic power must, if they are to succeed, control public opinion, the agencies of social communication, and government. Such controls are as essential to the establishment and maintenance of monopoly as control of the market. And herein lies the ultimate danger of unchecked monopoly power—the prospect that it might eventually dominate the entire society and suppress all freedom."[81]

Self-financing

The power of financial capital originates, on the one hand, in the concentration of industrial and banking capital, and, on the other, in the growth of the average size of big firms. Large-scale industry depends more and more on bank credit. This dependence implies the penetration of representatives of banking capital into large-scale industry.

The development of monopoly capitalism and its culmination in the period of capitalist decline, its increasing fusion with the state machine, alter the conditions under which finance capital wields power.

In the backward capitalist countries and some of the old capitalist countries (Belgium, Switzerland, to some extent France), finance capital remains based on the dominant position of a small number of banks and financial groups in relation to industry and the national economy as a whole. In some of the big advanced capitalist countries, however (the U.S.A., Britain, West Germany, Italy), the situation is defined rather by the interpenetration of industrial and finance capital: a few big trusts dominate whole sectors of industry, including banks which they control, and certain banks hold key positions in the national economy.

This transformation in the nature of monopoly capitalsm is the direct outcome of two basic phenomena of the age of capitalist decline: the capitalisation of super-profits and the comparative absence of fresh fields of investment for these capital surpluses. Self-financing made its appearance after the First World War, which brought about a record rise in undistributed profits (4·3 billion dollars in 1919 in the U.S.A., an amount not to be reached again before the Second World

War).[82] The trusts no longer suffer from a shortage of capital but rather from an excess of it. They resort less and less to obtaining advances from the banks.[83] Thus, they can no longer be controlled by banks supplying them with investment credit. They themselves create their own banks, in order to ensure that their available surpluses bring a "return". All the funds needed for depreciating their fixed capital and renewing it technically, as also for the expansion of their productive apparatus, are accumulated in advance and deposited in safe reserves. Self-financing is the name given to the financing of the expansion of the capital of big firms not out of credit, whether private or public (the capital market), but out of these reserve funds of the big trusts.

The practice of self-financing, which, in the case of big joint-stock companies, began to appear during the First World War and spread more and more after 1920, was accompanied by several phenomena of the highest importance for the study of the evolution of capitalism in our era.

The big monopolies mostly follow a policy of voluntary restriction of *distributed profits*: the bulk of the profits are deposited in reserve funds, in order to enlarge productive capacity, or are transformed into capital. In Japan, 85 big companies, with a capital of nearly 5 billion yen, distributed, in 1940–42, 611 million in dividends and put aside 623 millions as reserves. This policy is favoured by the law in a number of countries, which accord partial relief of taxation to undistributed profits.

These practices are to some extent to the disadvantage of small and medium shareholders who have to live on the current income from their shares (rentiers, etc.). For the big shareholders and heads of monopolies, however, who, besides their dividends, allot themselves substantial attendance payments, commissions, directors' fees, expenses, etc., this policy means that they gain in every way. Above all, it increases the amount of capital available to them, the size and possibilities of profitable use of this capital. It thus means only yet another stage towards the centralisation of capital. The property and income of a large number of small and medium-sized capitalists are subjected to the control of a few big capitalists and placed at their free disposal:

"It may be to the interest of the big shareholders to leave their share of profits in the business, rather than draw big dividends which would be subjected to proportional taxation and (or) to a progressive income tax. Among the shareholders, these are the only ones who can exercise a real influence on the determining of dividends, and the development of taxation during the last forty years has certainly encouraged them to use this influence so as to keep dividends at a moderate level."[84]

Self-financing operates in practice through the growing size of the

capital reserves of the trusts, either in the form of money capital or in that of new equipment or stocks purchased and not included in the balance sheets. These reserves are officially transformed into capital when an increase in the latter is decided on, often by way of distributing free shares to old shareholders.

In order to estimate the extent to which trusts have become richer in the age of self-financing it is thus more important to follow the evolution of their capital, their assets, than that of their distributed profits. Only in this way can one get an idea of the fantastic super-profits realised. Thus, in *Germany*, after the fixing of a limit of 6 per cent on dividends (law of June 1941), and thanks to the reserves accumulated since 1933, 1,466 companies increased their total capital by distributing bonus shares, from 8 to 12·5 billion RM.[85] The evolution of the assets of the biggest German trust, I. G. Farben, is even more significant:

	In millions of RM			
	Nominal Capital	*Total assets*	*Shares in other companies*	*Profits (inc. declared reserves)*
1933	650	1,458	289	310
1938	680	1,624	310	347
1940	733	1,923	400	390
1941	760	2,332	691	483
1942 (1st half)	900	2,632	720	517
1942 (2nd half)	1,360			

When the currency reform took place in Germany in 1948, 10 RM were exchanged for 1 DM. But firms had the right to estimate as they chose the value of their new capital. Most limited companies transformed their capital on a basis of 1 RM = 1 DM. They thus capitalised the huge reserves constituted by means of the super-profits obtained through carrying over goods which had been made in return for valueless RM paid out to the employees but which were sold only after the currency reform.*

The amount of these super-profits, as of the profits resulting from the "liberal" price policy permitted by the government after the currency reforms, appears particularly scandalous in a case like that of I. G. Farben. This trust had a capital of 1·4 billion RM: over half of its fixed property was in East Germany; all this property was represented in the new statement only by one symbolic DM. Yet, nevertheless, the capitalisation of exceptional super-profits made possible the maintenance in value of the nominal capital of this trust!

* These figures should be compared with those of the revaluation of nominal capital which took place after the stabilisation of the RM in 1923–24, when there had been a real material loss as a result of the war. Ninety-nine big firms revalued their capital in September 1924, reducing it to 560 million RM, as compared with 650 million in 1913.

Certain heavy-industrial trusts revalued their capital by replacing every 1 RM with 2 DM and more; thus, Klockner and Mannesmann applied the ratio 1 : 2, and Harpener Bergbau even the ratio 1 : 3·7. Whereas a pensioner or a life assurance policy-holder received 100 DM for 1,000 RM accumulated by his savings, a shareholder in Harpener received 3,700 DM for shares formerly worth 1,000 RM. So much for your "equality of opportunity", created by "free enterprise"!

The enrichment of the American trusts is similarly to be seen most of all in the increase in their assets which emerges from the following table (allowing, however, for the fact that in purchasing-power a dollar of 1958 was worth only half a dollar of 1935):

	In millions of dollars		
Industrial companies	*1935*	*1945*	*1958*
Standard Oil of New Jersey	1,894·9	2,531·8	7,830·2
General Motors	1,491·9	1,813·9	7,498
U.S. Steel Corp.	1,822·4	1,890·8	4,372·8
Ford Motors Co.	681·6	815·5	3,347·6
Gulf Oil Corp.	430·2	652·8	3,240·6
Pennsylvania Railroad	2,863	2,224	2,991
E. I. du Pont de Nemours Co.	581·1	1,025·5	2,755·6
Texas Corp.	437·8	833·5	2,729·1
New York Central Railroad	2,356	1,735	2,625·9
Standard Oil of Indiana	693·5	946·1	2,535
Financial companies			
Metropolitan Life Insurance	4,325	7,562	15,536·1
Prudential Life Insurance	3,129	6,356	13,919·1
Bank of America	1,277	5,626	10,639·1
Equitable Life Insurance	1,816	3,849	8,875·7
Chase Manhattan Bank	2,898	7,452	7,809·8
First National City Bank, N.Y.	1,881	5,434	7,802·6
New York Life Insurance	2,244	3,814	6,424·8
John Hancock Mutual Ins.	931	1,838	5,163·3
Northwestern Mutual Ins.	1,072	1,878	3,727·5
Manufacturer Trust Co.	673	2,693	3,348·2

The 56 companies which in 1948 possessed property of a billion dollars or more had assets amounting to 129·2 billion dollars, or more than all the 225,000 industrial manufacturing firms in the U.S.A. These assets represented at that moment a value of 45·237 billion French francs, or more than double the total wealth of 45 million Frenchmen! *

In 1958, the 50 American companies with the most property—ranging from 17·7 billion dollars in the case of the American Telegraph and Telephone Company to 1·527 billion in that of the Crocker-Anglo-

* In 1950, M. René Pupin estimated that this wealth amounted to 19,600 billion French francs.[86]

National Bank—had, in all, assets of 206·3 billion dollars or more than 93,000 billion French old francs.

A number of facts confirm *the present interpenetration of the big trusts and banks in the chief capitalist countries.* In *the United States* the heads of big banks are still members of the boards of big monopoly trusts. Thus, Alexander C. Nagle, until recently president of the First National Bank of New York, is on the boards of the U.S. Steel Corporation, the New York Central Railroad and the Prudential Insurance Company, all of which are controlled by the Morgan group. On the other hand, Alfred P. Sloan, Jr., chairman of the board of General Motors (Du Pont group), is on the board of the J. P. Morgan and Co. Bank, and Richard K. Mellon, of the group which controls the Aluminium Company of America, is chairman of the board of the Mellon National Bank Trust Company, etc.

In *Britain*, D. J. Roberts, Lord Glenconner and Viscount Chandos represent respectively the National Provincial Bank, Hambro's Bank and Alliance Assurance Ltd. on the board of the biggest British trust, Imperial Chemical Industries. On the other hand, the vice-chairman of I.C.I., S. P. Chambers, is a member of the board of the National Provincial Bank, and the chairman of the board of I.C.I., Sir Alexander Fleck, is a member of the board of the Midland Bank. While big trusts such as Vickers, British Petroleum, Cunard Line, have their representatives on the boards of a number of banks, the big five banks are in their turn represented on the boards of about thirty of the largest British trusts.

In *West Germany*, Hermann Abs, chairman of the board of the Deutsche Bank, is on the boards of about thirty big industrial companies, and has been chairman of several (e.g. Badische Anilin, Vereinigte Glanzstoff, Dortmund Hoerder Hütten Union, and Daimler-Benz). Carl Goetz, chairman of the board of the Dresdner Bank, has similarly been chairman of the board of the Rheinisch-Westfälisches Elektrizitätswerke A.G., of Degussa, of Agfa, Dynamit A.G., of Adlerwerke, etc. On the other hand, we find on the board of the Dresdner Bank representatives of Blohm and Voss (shipyards), A.E.G. (electrical machinery), Dortmund Hoerder Union (steel), Brown Boveri (electrical machinery), Klockner-Humboldt-Deutz (mechanical engineering), Farbwerke Hoechst (chemicals), etc.

The growing importance of self-financing is shown most clearly in the smaller part played by investment credit and resort to the capital market. In *Nazi Germany* the total of undistributed profits rose from 175 million RM in 1933 to 1,200 million in 1935 and 3,420 million in 1938, in the case of joint-stock companies alone, to which must be added one billion RM for the reserves of other companies. Profits distributed as dividends amounted to no more than 1,200 million RM.[87] After the currency reform of 1948, self-financing, which accounted for

only 17 per cent of industrial investments in 1926–28,[88] increased from 39·7 per cent in 1948–49 to 54·5 per cent in 1950, 63·9 per cent in 1953, 64·9 per cent in 1955, and 66·1 per cent in 1957.[89]

In *Britain*, in 1952, undistributed company profits amounted to £1,045 million, whereas the fixed investments of these companies came to only £631 million.[90] In the following years, undistributed profits continued regularly to exceed the total of fixed investment and even the total of net investments.[91]

In the *United States*: "In November 1953 the economists for the National City Bank made an excellent brief study of the use and sources of capital . . . They calculated that in eight years (1946 to 1953 inclusive) an aggregate of 150 billions of dollars had been spent in the United States for capital expenditure, namely modernising and enlarging plant and equipment . . . Sixty-four per cent of the 150 billion came from 'internal sources', that is to say, receipts of the enterprises which had been accumulated and not distributed as dividends."[92]

A writer who has studied the evolution of self-financing in the United States observes: "Since 1939, undistributed real profits have formed a much more important source of financing than the contribution of the capital market. Since that date, self-financing has always provided over half of the total of the funds under consideration, over 60 per cent in the years 1948–50, the maximum having been 90 per cent in 1943 . . . In this way, the structure of financing in this post-war period differs from what it was in the first such period."[93]

In *France*, Maurice Malissen[94] reports that since the Second World War, self-financing has been more important than contributions from outside in the financing of firms, and that as a rule it exceeds 50 per cent of their net investment.

The more reduced role played by bank capital is likewise shown in the huge accumulation of securities deposited with insurance companies. In several countries the figure exceeds that for bank deposits. The insurance companies thus control a considerable share of the available capital; they accumulate substantial shareholdings in industry, while being at the same time among the chief purchasers of government bonds. The increase in the wealth of the insurance companies and their advance as compared with the banks is in itself an indication of the ageing of the capitalist régime, in which the chief preoccupation has become *security*, that is, conservation, and is no longer *expansion*.

In the *United States*, the biggest insurance company, Metropolitan Life, had in 1958 a capital of 15·5 billion dollars. Five hundred and eighty-four insurance companies together possessed 80 billion dollars in 1954. This enrichment of insurance companies is a comparatively recent phenomenon: between 1932 and 1958 their capital quadrupled.

In *France*, since 1932 the 90 directors of insurance companies have at the same time provided:

7 regents of the Bank of France;
227 bank directors;
180 bank directors;
54 railway company directors;
257 directors of industrial and commercial firms.[95]

In *Britain* the insurance companies, on the eve of the Second World War, put £50 to £60 million every year on the capital market, or 35 per cent of the total.[96]

While in 1850 the American banks held 82 per cent of the capital of all American financial concerns, and 67·7 per cent in 1900, this percentage fell to 52·7 per cent in 1949, while that of the insurance companies and pension funds rose from 8 per cent in 1950 to 12·3 per cent in 1900 and 27·7 per cent in 1949.[97]

This phenomenon, like that of the growing importance of *institutional savings* (social insurance funds, funds of semi-public bodies, etc.), is, moreover, a consequence of self-financing (as also of a certain evolution in trade) rather than the cause of it. It is because the capital market no longer has its former importance that other forms of saving are preferred by small rentiers, etc. The importance of building society credit has also grown to a marked degree.

Overcapitalisation

The changes in the structure and functioning of monopoly capitalism which follow from the practice of self-financing are even farther-reaching than we have indicated up to now. Self-financing actually alters the system of *monopoly prices and profits* and so brings about the phenomena of overcapitalisation.

Self-financing results from monopoly super-profits which can no longer find new fields for investment. But the more the market shrinks, relatively, while the quantity of fixed capital grows, the greater becomes the danger that it will not be possible to put capital to profitable use, without hindrance, during a certain period. The more the difficulty becomes apparent of finding profitable use for the mass of capital accumulated, the more do the monopolies strive to guarantee their super-profits, by increasing the margin of *immediately realisable* profits. These profits are included in the costs of production, and, in so far as a monopoly market prevails, they are both foreseen and guaranteed in advance: "Profit is no longer contingent; it has become just as predictable as any other element in the cost of production. Risk vanishes completely, thereby proving that it is in no way the origin of profit. Profit is no longer residual; henceforth it enters

into the preliminary fixing of selling prices, just like wages or interest."[98]

But monopoly profit, in the era of self-financing, is not so much a matter of income for shareholders as of reserves for future investment by the big trusts. In other words: *Monopoly prices are determined in such a way as to ensure in advance the steady expansion of the enterprise, its capital, and its productive capacity.* The irony of this evolution is that this guarantee of future expansion results less from the requirements of competition than from the shrinkage of the field for new capital investment.

In this way there develops the practice called "investment through prices" (*Preisfinanzierung*). Discussing how this system worked in Nazi Germany, Lurie remarks: "Prices are made to include, in addition to costs and a reasonable allowance for profits, a depreciation charge which is destined to provide not only for replacement of the equipment involved but also for expansion of capacity. The value of the original investment is thus recovered at an accelerated rate, followed by accumulation of surplus reserves, which can be used for further financing. The technique has been referred to in German literature as 'financing by prices' (*Preisfinanzierung*) . . . It . . . implies necessarily the existence of some kind of monopolistic elements. While prices are formally based on costs, the actual situation is one of monopoly pricing, calculated to yield self-financing surpluses disguised as costs."[99]

The writer also gives some examples of price-calculations of this sort. The *Vereinigte Aluminiumwerke A.G.*, which controls 70 per cent of German production of aluminium, frankly notes in its report for the financial year 1937 that "depreciation [!] and other entries under the heading of reserves amount to 204 RM per ton of aluminium, the price of which is 1,330 RM. After financing the expansion programme [a strange sort of 'depreciation', indeed!], some of the amount concerned may be used to reduce the price of the metal", adds the report.

In the same year, the report of the Rheinmetall-Borsig arms trust showed that the government approved the practice of not distributing profits, "in view of the heavy self-financing requirements of the company and the uncertainties attached to the long-run prospects of the investments."[100]

The situation is no different in the U.S.A. Before the Flanders Committee of the Senate which, in December 1948, undertook an inquiry into the level of company profits, the representatives of the trade unions formally accused the trusts of raising prices, not in order to meet higher costs but exclusively in order to secure funds for their own expansion. The representatives of the trusts did not try to refute the evidence, contenting themselves with alleging that this expansion

. . . was in the public interest! (see declarations by representatives of Standard Oil of New Jersey, General Motors, General Foods, General Electric, etc.).[101]

Before the war, an economist described as follows the price policy of the General Motors trust:

"After the depression of 1921, General Motors adopted a price policy which depended upon an investment policy. Assuming that expansion is desirable so long as the anticipated revenue from the sale of the added product at the anticipated price will more than cover the anticipated cost of the new capital, the company predicted sales trends, the cost of capital involved in expansion, and the load factor in the use of equipment . . . By estimating the amount of idle capacity which would be encountered because of fluctuations in sales and by applying the resulting load factor in the determination of both its price policy and its investment policy, it made these fluctuations consistent with stability of its prices and rate of investment . . ."[102]

The policy of General Motors has not changed since then:

" 'General Motors' approach to pricing, Mr. Coyle stated [in 1949], 'is predicated on a measurement of unit costs calculated on a standard or average volume rate of operations which takes into account plant capacity and the market potential over the long term'. This is a good if concentrated summarisation of G.M's traditional pricing policy. G.M. first posits a reasonable rate of return that it might hope to earn on its capital investment over a period of years, good and bad; then it fixes upon a 'standard' volume that it hopes similarly to average over these same years. It then arrives at a price—a 'standard' price —which will earn that return on that volume of business. Now this price is a fixed figure in so far as fixed charges are concerned—the charges for tools, overhead, depreciation, insurance and so on."[103]

It should be noticed that this price also implies elimination of the risk of economic crises, as other monopoly concerns have frankly admitted.[104]

The super-profits thus realised are so high that the trusts prefer not to admit the true size of their reserves, so as not to arouse public indignation . . . and so as to reduce the amount of taxes they have to pay. In this way there develops the practice of hidden reserves, which explains the astonishing revaluations of nominal capital which we have mentioned in connexion with Germany. The published balance-sheets reflect less and less the *true* position of the trusts, and become instead devices for *concealing* this position. The techniques used to disguise hidden reserves in balance-sheets are the following:

1. Excessive depreciation allowances. These are supposed to re-constitute the fixed capital used up, at its original value. If a machine worth 10 million francs is used for 10 years, and the price of this machine has not increased during this period, one

million francs must be set aside each year for its depreciation. If, however, *two* million are set aside, then a "depreciation fund" is formed which in fact makes it possible, at the end of these ten years, to double the fixed capital, buying two machines to replace one.*

2. Reducing the estimated value of the stocks held by the enterprise. The credit side of the balance-sheet shows the stocks of all kinds belonging to the company. If, in estimating uncertain future changes in prices, the company reckons these stocks at half their real value, though actually selling them thereafter at this real value, it possesses a hidden reserve of surplus value which can be capitalised.
3. Disguising the acquisition of new plant and equipment under the form of operating costs. Among current expenses are put down the costs of buying raw materials, electrical power, etc., which are covered by the sale of goods. If the purchase of new machinery takes place, though the counter-value of the operating costs is normally assumed to have disappeared in the course of production (circulating capital), the company has increased its fixed capital without this showing in the balance-sheet: "Certain replacement expenditure, duplicating depreciation or even serving for new investment, can be put down as maintenance charges. The net profit is obviously reduced thereby, and a net contribution to self-financing is thus included in hidden reserves; but the outside observer has no means of taking this into account."[106]†

But all these practices taken together add up to a paradox. Superprofits, the condition for which is a relative limitation of production, lead, through self-financing, to an increase in productive capacity!

* "If it be agreed that a depreciation rate of 10 per cent corresponds to the actual depreciation of the whole fixed investment (*Sachanlagen*), the 30 companies we have considered have exceeded, down to 1953, by 431 million DM, the depreciation allowance thus made necessary. 'Hidden reserves' have been formed, to this amount at least, and it is impossible to discover how much investment, over and above this amount, has been covered by costs of current working."[105]

† This phenomenon must be allowed for when analysing in a critical way the statistics which point to a recovery in the average rate of profit since the Second World War. The figures for admitted profits are understated, but the figures for capital (or own resources) which enter into the calculation of the rate of profit are understated to an infinitely greater extent. Without a proper accountant's report made under trade union supervision it must doubtless remain impossible to estimate the real wealth of monopoly firms, and, therefore to determine whether their rate of profit is or is not lower than before the First World War.

The law of the tendency of the rate of profit to fall continues to show itself through the fact that the average rate of profit is lower in the more advanced industrial countries than in the less advanced.

This is the fundamental contradiction of the age of capitalist decline, *the contradiction of overcapitalisation.* It finds expression, on the one hand, in the existence of a mass of money capital unable to discover fields for investment. This phenomenon was particularly felt in Germany on the eve of the Second World War, after seven years of prodigious super-profits.[107] It is the same today in the United States and in Switzerland. According to the American banker Warburg, at the beginning of the 1950's there were 7 billion dollars of hot money around every year, which the American capitalists did not know what to do with. Even in a country so inadequately industrialised as Italy, in the year 1958 alone the accumulation of capital exceeded investment by some 300 billion lire (statement by the minister Tambroni at the Christian-Democrats' conference in Florence in 1959).

Overcapitalisation finds expression, on the other hand, especially in chronic under-employment of existing productive capacity. Between 1920 and 1940 the average of the potential used every year in the American steel industry was 59·2 per cent of the total.[108] For the whole of manufacturing industry in the United States, during the boom years of 1925–1929 unused productive capacity was estimated at 20 per cent. In 1947 it again reached this percentage, to rise to 25 per cent in the summer of 1954.[109] The weekly *U.S. News and World Report*[110] published in 1955 and 1956 two tables showing employment of productive capacity in particular sectors of industry, *and this in the midst of a boom*: *

	Beginning of 1955	*Spring 1956*
Motor car industry working at	72% capacity	72% capacity
Steel industry working at	85% capacity	—
Cotton industry working at	70% capacity	—
T.V. industry working at	76% capacity	60% capacity
Refrigerator industry working at	46% capacity	—
Vacuum-cleaner industry working at	55% capacity	—
Furniture industry working at	89% capacity	95% capacity

The growing importance of armaments and war economy

Capitalism in decline is incapable of finding profitable use "in a normal way" for the whole of the huge amount of capital it has accumulated. But capitalism cannot exist and grow without finding

* Here is an appropriate commentary by A. M. Raskin in the *New York Times* in the midst of the new boom:

"Perhaps the most disturbing cause of the rise in strikes [the writer is writing on the eve of the great steel strike] is the fantastic productivity of our industrial machine and our inability to find outlets, either at home or abroad, for all we can produce. Our steel-mills can cover in 9 or 10 months all our domestic and export needs. We possess a similar surplus capacity for producing motor-cars, washing machines, refrigerators, incandescent lamps, T.V. sets, ships, railway carriages and a thousand [!] other products for which the need exists in an under-developed world, but for which there are too few buyers."[111]

such profitable use, without constantly expanding its basis. In proportion as this structural crisis becomes more marked, the capitalist class, and especially the heads of the monopolies, more and more systematically seek out *replacement markets* which can guarantee such expansion. Armaments economy, war economy, represent the essential replacement markets which the capitalist system of production has found in its age of decline.

The absence of new markets, the monopolistic practices of the big trusts, which entail a tendency to restrict production, and the lack of new fields of investment for "available" capital bring about, side by side, a slowing down in world-wide industrial development and a surplus of capital in the big imperialist countries. The steel industry found itself without a big new market to exploit after the world-wide development of railways. It was the arms policy of the Great Powers during the years leading up to the First World War that furnished the conditions for the advance of the steel industry, notably in France and Germany. Sometimes, as in Russia and Japan, other kinds of government contract played fundamentally the same role. On the morrow of the First World War, motor-car production partly filled this gap, but the great economic crisis of 1929–1932 was really overcome in heavy industry only through German rearmament, bringing in its train rearmament on the international scale. Similarly, in American industry, only speeded-up rearmament after 1940 succeeded in eliminating the stagnation of heavy industry at a level of underemployment.

The replacement market is, essentially a new purchasing-power created for the purchase of products of heavy industry by the state. But this purchasing-power is not "created" in the literal sense of the word, that is, it does not spring from nowhere. It is not "new", even when it appears in the form of bank notes freshly printed for this purpose by the state. Its only source is *a redistribution of the real national income*, a redistribution which can, of course, lead to an increase in production, that is, in overall real income, which thus becomes an extra source of new purchasing power.*

This shifting of purchasing power from one sector to another takes place through deductions made by the state, both direct and indirect, namely: direct taxes (on income, turnover, wealth, etc.); indirect taxes; more or less compulsory investment in state bonds; forced saving; printing of inflationary paper money which reduces the level of the workers' real wages, etc. It results in an enrichment of the heavy industrial monopolies at the expense of other strata of the population.

Thus, in the United States, of war contracts placed during the Second World War amounting to a total of 175 billion dollars, 67·2 per cent went to 100 monopoly trusts, mostly in heavy industry. In Ger-

* See Chapter 10, section on "War economy".

many between 1933 and September 1939 about 63 to 64 billion RM were spent on rearmament, which caused the production of capital goods (machinery and equipment) to increase fourfold as compared with 1932, while the production of consumer goods did not increase by so much as 50 per cent. During the Korean war, of all the war contracts placed between July 1950 and June 1953, the 100 biggest American firms received 64 per cent.[112]

The role of replacement market played by the arms economy is indispensable for making possible profitable use of the capital of heavy industry and the "overcapitalised" big monopolies. But the arms economy makes the state the chief customer of this industry. The special ties between the state and monopoly capital, which we have already stressed all through this analysis of the declining phase of capitalism, thus assume a more specific form.

The state, in close symbiosis with the monopolies, whose heads more and more often effect personal union with those who carry out key functions in the state machine, *guarantees the monopolies' profits not only by a policy of subsidies or insurance against loss, but also, and especially, by ensuring stable and permanent markets for them*: public contracts, which in the great majority of cases, are contracts for national defence.

The American weekly *U.S. News and World Report*[113] calculated that of 71·8 billion dollars expenditure provided for in the U.S. budget for 1957–58, 45 per cent represented direct contracts for industry, worth a total of 33 billion dollars, namely:

7·4 billion dollars to the aircraft industry
4·5 billion dollars to the building industry
2 billion dollars to the guided missile industry
1·3 billion dollars to the shipbuilding industry
1·3 billion dollars to the food industry
1·2 billion dollars to the chemical industry
1·1 billion dollars to the electronics industry

The same article shows that the aircraft industry (which employed 800,000 people at that time) and the electronics industry largely depended on public contracts. If we add to this the interest on the public debt, amounting to 7·4 billion dollars, which mostly goes to the banks and insurance companies,* nearly 60 per cent of the budget of the United States is paid directly to certain definite—and very narrow! —sections of the capitalist class: heavy industry (especially the big monopolies in this field) and the big financial concerns.

In France, the budget was officially analysed in 1956 as including war contracts to industry amounting to 630 billion French francs, of

* According to R. W. Goldschmidt, financial concerns held in 1949 72 per cent of the value of American state bonds.[114]

which 44 billion to the motor-car industry, 129 billion to the aircraft industry, 56 billion to civil engineeering, 6 billion to the rubber industry, 34 billion to the fuel industry, 14 billion to the chemical industry, 41·8 billion to the shipbuilders, 16·6 billion to the electrical industries, 30 billion to the sheet-metal producers, 6·4 billion for machine tools, 85·2 billion to the manufacturers of mechanical weapons, 45 billion for textiles and leather, 50 billion for telecommunication equipment, etc.[115]

The ever-greater—and stable!—share of armament expenditure in the national income of all the capitalist nations is the chief factor determining the growth of "public expenditure" in the national budget; the development of the social services plays only a secondary role in this connection—a role which often, moreover, is indirectly linked with the arms economy: thus, the social expenditure in the American budget of 1957–58 included 4·5 billion dollars for payments to ex-servicemen, etc. This public expenditure nowadays absorbs between 12 and 20 per cent of the gross national product of the chief capitalist countries.[116] As for military expenditure in the strict sense, it amounted, in percentage of the gross national product, to the following:

	1950–51	*1951–52*	*1952–53*	*1953–54*
United States	7·6	13·4	14·5	13
Britain	5·7	7·5	9·1	9·3
France	—	8	8	7
	1954–55	*1955–56*	*1956–57*	*1957–58*
United States	11·2	10·3	9·8	10·2
Britain	8·4	7·4	7·8	7·3
France	6	7	7	7

If war economy carried to its logical conclusion necessarily implies a process of contracted reproduction,* this is not so with a more or less permanent economy of armaments and militarisation which is kept within certain limits. On the contrary: in this case the state's contracts stimulate production and expansion of productive capacity not only in the directly "militarised" sectors, but also in the raw material sectors and even, through the increase in general demand thus created, in the consumer goods sectors. *So long as there are unused resources in society*, this "stimulant" will tend to ensure full employment of them, while in the long run undermining the stability of the currency.†

But as soon as full employment of means of production and labour has been achieved, no fresh expansion of military expenditure can take place without transfer of resources from other sectors of the economy to the militarised sectors (whether these transfers take place

* See Chapter 10, section "Contracted reproduction".

† See the following section: "Permanent tendency to currency inflation".

directly, by way of orders and decrees, or spontaneously, through the effect of price increases).

Even in this case, contracted reproduction does not necessarily set in in all sectors—it may be confined to certain sectors which are in direct competition with the arms sectors for the allocation of resources. Frequently, expanded reproduction may even continue in all sectors, on condition that the rate of expansion is stable or declining, that is, that the armaments sector absorbs the bulk or the whole of the *additional* resources available in the economy.

Thus, in Britain between 1950 and 1954 the available resources in metal products increased from index 91 to index 110, an increase of more than 20 per cent. During the same period, the metal products used for civil investment increased hardly at all (index 35 in 1950, index 37 in 1954); and exports, too, absorbed much the same amount (index 38 in 1950, index 39 in 1954). Consumer goods intended for the home market similarly absorbed the same quantity of metal products in 1954 as in 1950. The growth in production was essentially devoted to rearmament (arms expenditure absorbed 8 per cent of metal supplies in 1950 and 15 per cent in 1954) and the manufacture of private motor-cars (2 per cent in 1950, 6 per cent in 1954).[117]

Does this mean that a "moderate" arms economy can guarantee full employment and give birth to a "crisis-free capitalism"? Not at all. But before examining this problem we must draw attention to two other phenomena; the fact that the arms produced in order to secure a "replacement market" for capitalism have the unfortunate tendency to be used, and the fact that the arms economy implies a permanent tendency to currency inflation.

The increasing role played by the arms economy, and by war economy in the strict sense, in making possible the profitable use of capital, especially the capital of Department I, becomes a subsidiary cause of imperialist wars and war dangers. The latter are phases which are more and more difficult to avoid in the production cycle of capitalism in its period of decline. To the extent that the armaments policy becomes a necessary palliative for crisis, or the threat of crisis, it produces its own inevitable prolongation in the threat of war. The extension of productive capacity which it entails intensifies still further the contradictions which it has striven to escape. A new and more dangerous day of reckoning approaches; the arms policy cannot be pursued indefinitely without the use-value of the accumulated weapons being exploited, that is, without the outbreak of wars, whether "local" or general. The arms policy can follow a spiral course only in so far as the arms themselves are "consumed", disappear, that is, in so far as war breaks out. Finally, technical progress threatens the accumulated weapons with a rapid "moral depreciation". All these factors create a pressure in the direction of war danger from the moment a

certain point is reached in rearmament, war-preparation and rearmament acting on each other alternately as cause and effect.

The economic cycle is thus combined with a cycle of wars: this is the era of war capitalism.[118]

But the economy of rearmament and the war economy do not merely constitute "replacement markets", they are also instruments for extending and expanding real markets. The intimate fusion of monopoly capital with the state ensures that the representatives of the former follow in the wake of the victorious armies and share out thereafter the loot of the occupied and conquered countries:

> *The Japanese trusts.* From 1937 onward, the entire economy of Manchuria was directed by the Aihaxa Company, belonging to the Mangyo group, which controlled the Industrial Company for the Development of Manchuria. Immediately after the military occupation of the province of Shansi (1938), the army turned over to the trusts the principal enterprises of this province. Every time a new territory was conquered by the army, the trusts shared in its exploitation. At the beginning of 1943, the field of operations of certain trusts was officially defined as follows:
> *Mitsui:* Indochina, Thailand, Malaya, Sumatra, Java, Borneo, Burmese cotton, cement in the Philippines.
> *Mitsubishi:* Coal in Malaya and Sumatra, teak in Burma (jointly with Mitsui), wolfram in Burma, cement in Malaya and Burma, dyes in Java and Malaya.
> *Bank of Formosa:* Hainan, Celebes, New Guinea, Pacific islands.
> *Nomura and Yasuda:* South China, etc.[119]
>
> *The German trusts.* After the occupation of the U.S.S.R., the big German trusts took over the running of most of the Soviet industrial groups, while the big banks financed the *Ostgesellschaften.* As was shown by the evidence presented at the Nuremberg trials, Krupp took over two factories at Mariupol, two at Kramatorskaya and one at Dniepropetrovsk. In 1943 Krupp dismantled the mines and steel works of the Dnieper region, including the Voroshilov factories at Dniepropetrovsk. I. G. Farben controlled Chemie-Gesellschaft Ost G.m.b.H. and Stickstoff Ost. A.E.G. set up A.E.G.—Fabriken Ostland G.m.b.H., etc.
>
> *The American trusts.* When the American armies occupied Germany and Japan, American trusts such as Standard Oil, General Motors, Westinghouse, Philco, etc., established a network of branches in these countries. In Germany, Firestone took over the chief rubber trust, Phoenix Werke; General Motors took over the chief motor-car trust, Open Werke; Sacony Vacuum Oil Co. acquired important influence in Wintershall, etc.

Permanent tendency to currency inflation

The creation of a permanent, and growing, armaments sector within the capitalist economy explains another typical phenomenon of the

period of capitalist decline: the permanent tendency to currency inflation.

Indeed, arms production has, from the currency standpoint, this special feature: it increases the amount of purchasing power in circulation without creating on the market a corresponding additional supply of *goods*, as counter-value. Even when this increased purchasing power brings about the re-employment of previously idle machinery and men, it causes inflation eventually. The incomes of the workers and the profits of the companies reappear on the market as demand for consumer goods and capital goods, without the production of these goods having been increased.

There is only one special case where the production of armaments is not a cause of currency inflation, and that is when *all* arms expenditure has been financed *entirely by taxes* (that is, *by reducing the purchasing power* of individuals and firms) and when taxes do not change the rates between demand for consumer goods and demand for capital goods if the supply of these goods remains fixed.* Such a case is practically unknown in the epoch of the decline of capitalism.

The increasing importance of bank money in the monetary stock of many capitalist nations is such that currency inflation can take the form essentially of *credit inflation* (inflation of bank money). In the United States, *private indebtedness*, which has become more and more disturbing, is a generator of inflation. The volume of consumer credit increased from 7·7 billion dollars in 1929 and in 1946 to over 50 billion in 1958. Mortgage credit has grown from 27 billion in 1940 and in 1945 to 48 billion in 1950 and nearly 175 billion in 1961! But, in general, it is the *increase in the public debt* which is the determining factor in currency inflation. The essential part played by state expenditure in creating this credit inflation becomes apparent when we look, in the balance sheets of the banks, for what is set against the credits granted: we find public debt securities (bonds, Treasury certificates, etc.). The increase in the public debt has simply replaced (concealed) direct currency inflation. Instead of appearing in the form of an increased amount of fiduciary money in circulation, it appears in that of an increase in the *fictitious capital* constituted by public debt securities.† But the total stock of currency is swollen exactly as if there had been an issue of paper money.

Here, in this connection, is the share occupied by public funds in the total assets of the commercial banks of various countries: [120]

* When full employment has been re-established thanks to the arms economy, but at the same time production of consumer goods remains fixed, all available resources having been diverted to Department I, increasing the incomes of wage-earners and demand for consumer goods has an inflationary effect.

† Between 1945 and 1952 the circulation of money increased by only 4 per cent in the United States, despite the Korean War.

	1913	*1938*	*1945*	*1952*
Belgium	—	15	65	42
Denmark	—	14	23	14
United States	4	29	60	33
Britain	—	37	63	50
Italy	—	30	64	32
Holland	—	—	73	58
Sweden	—	3	24	13
Switzerland	—	3	26	13
Canada*	2	11	44	33

There are, of course, countries, such as Germany after 1933 and France after 1940, in which the inflation caused by unproductive public expenditure appears directly in the form of additional, depreciated bank notes. In Germany, the currency in circulation increased from 10·4 billion RM in 1938 to 56·7 billion on 15th February, 1945; in France it increased from 112 billion francs in 1938 to 577 billion in 1945 and 2,000 billion in 1952. In Japan it even increased from 2·9 billion yen in 1938 to 54·8 billion in 1945!

If, in spite of these substantial increases, the increase in prices was in some cases relatively modest (notably in Germany) this was because, on the one hand, production and taxation were greatly increased, and, on the other, a big slice of the distributed purchasing power was "frozen" in the banks in the form of more or less forced saving, and because, finally, the state, using police pressure, enforced a stability of "official" prices which contrasted with the more spectacular and more "real" increase which occurred on the black market.

Permanent inflation, even when it is more or less "moderated" or "frozen", as today in the United States (and as happened in Nazi Germany), always implies a *redistribution of the national income*. Its first victims are the recipients of fixed incomes, together with all the sections of the wage-earners who do not possess the means or the trade-union strength needed in order to safeguard their real incomes.

Nevertheless, when the economy continues to be generally expanding, this redistribution does not necessarily imply an absolute worsening of the workers' standard of living (this did not happen, for instance, in the United States between 1945 and 1958). But it does imply that the share of the increasing social product which goes to the wage-earners is less than it would have been with a stable currency. Inflation serves in this instance as a means to relative neutralisation of trade-union power, and is not, as conservative circles rashly allege, the "result of trade-union pressure".†

* The Royal Bank of Canada alone.

† See Chapter 18, section on "The Keynesian revolution".

Various features of the declining phase of capitalism further reinforce the inflationary tendency which is fundamental to our era. To be mentioned especially are all the practices of speeded-up depreciation, self-financing, and, in general, the excess liquidity of the big monopolies. This results in raising prices, thus increasing the volume of currency circulation, without this money finding any counterpart on the market, *the duration of the real renewal cycle of capital not having been reduced in the same proportion as that of the financial and accounting cycle of depreciation.* These liquidities come back into the currency circuit if they are deposited in the banks, and thus stimulate credit inflation. Otherwise, they are used to buy short-term state bonds, which "finance" deficits or unproductive budgetary expenditure, and thus create inflation in the literal sense.

A crisis-free capitalism?

Since the Second World War, capitalism has experienced four marked recessions: in 1948–49, 1953–54, 1957–58, and 1960–61. It has had no grave crisis, and certainly nothing of the dimensions of 1929 or of 1938.

Have we here a new phenomenon in the history of capitalism? We do not think it necessary to deny this, as certain Marxist theoreticians do, explaining the facts with the aid of all-purpose formulas (e.g. "the world economic cycle has been broken up, owing to the world war, and this has prevented [?] it from deepening", says J. L. Schmid.[121] This writer forgets that many past cycles have been marked by big gaps in time as between one country and another.)

The origins of the phenomenon are connected with all the features of the phase of capitalist decline which we have listed. The capitalist economy of this phase tends to ensure *greater stability* both of consumption and of investment than in the era of free competition, or than during the first phase of monopoly capitalism; it tends towards a reduction in cyclical fluctuations, resulting above all from the increasing intervention of the state in economic life.

The greater the number of the sectors of the economy over which the monopolies wield total control, the more investment in these sectors will tend to be spread out in time, regardless of the moment in the economic cycle. Monopoly profits, "investment through prices", the guaranteeing of profit, all signify, in the last analysis, that the accumulation of monopoly capital has freed itself, to some extent, from the cycle, that it forestalls crises, that it allows for them in advance in the way it calculates its selling prices. Increasingly, the big monopoly companies thus apply a long-term investment policy, a "programming", if not a "planning" of investments (including the maintenance of an extra margin of capacity intended to meet the sudden onslaughts of the boom).[122]

It may thus be considered that the reduction in the size of cyclical fluctuations results in part from the very working of capitalist economy in our era.

The greater, moreover, the number of monopolised sectors, the greater likewise is the number of sectors in which the capitalists, possessing a huge structure of fixed capital which has to be currently depreciated, are fully interested in retaining "stable" social relations. Superprofits enable them to ensure stable incomes for their employees, and even a slow but regular increase. The stability of the régime demands the generalisation of systems of social insurance, social security, unemployment pay, etc. All these systems mean, in the end, that during a period of crisis the total purchasing power of the wage-earners is not reduced by an amount equal to that represented by the ratio of unemployed to total labour-force, but only by a much smaller amount. Through the working of these immanent forces of the system, total demand thus declines less markedly in a period of crisis than used to be the case.

The system contains, however, an important new factor of instability, which entails the risk of neutralising the previously-mentioned "stabilisers": the importance assumed by the production of *durable consumer goods*. This is explained by the increase in real incomes, and especially by their greater stability, which makes possible hire-purchase selling, without which workers could not acquire consumer durables. Contrary, however, to what is characteristic of non-durable consumer goods, the demand for these durable goods is very elastic, and at the start of a crisis undergoes a decline even sharper than the demand for capital goods, as we see from these figures:

> Between December 1956 and January 1957 and April 1958, American industrial production fell by 21 points, production of durable goods by 36 points, and production of consumer durables by 44 points (of which, motor-cars by 75 points!).
>
> In percentages, these reductions were 14·2, 21·5, 31·2 and 44·4, respectively. Compared with the previous peak in September—October 1955, the fall amounted to 14·2 per cent, 18·6 per cent, 37 per cent and 51·8 per cent, respectively.[123]

Furthermore, the immanent forces which work in the direction of a relative reduction in the size of fluctuations operate only temporarily. The monopoly sectors stabilise their investments, but those of the sectors open to competition experience fluctuations which are even more violent than before. If reduction in investments in a period of crisis no longer takes place, or only to a limited degree, in the monopoly sectors, the latter show themselves incapable of investing the whole of their swollen mass of profit. Again, while wages tend not to decline markedly in a period of crisis, as they used to, owing to the strength

of the trade unions, neither do they tend to rise markedly in the boom period. *The whole system evolves not so much towards uninterrupted growth as towards long-term stagnation.*

It is here that an additional factor cames in: the redistribution of part of society's resources through the state. True, its operation is felt as much in the consumption sphere (subsidies, social insurance, family allowances, salaries of civil servants, etc.) as in that of investment (schools, roads, hospitals, armaments, etc.). But we have already shown that this activity in favour of consumption is more modest than is generally thought,* a large share of the resources thus redistributed coming from the same classes—not the same families, or the same individuals, of course! —that benefit by these "transfers".

It is thus above all in the sphere of investment that the role played by the state has become more and more significant. From the standpoint of the capitalist production cycle, its role can be summed up like this: it makes up for the chronic inadequacy of capitalist investment and thus to some extent offsets the tendency to long-term stagnation. It may, furthermore, strive to counterbalance any sudden reduction in private investment by a corresponding increase in public investment.†

The practical effect of this increased economic role of the state is precisely a reduction in the size of cyclical fluctuations. This will easily be understood if one considers the cumulative consequences which characterise the march of the classical crisis and depression.‡ At their beginning, dismissals bring about a decline in expenditure on consumer goods; as a result, orders (investments) are reduced successively in both departments, which in turn leads to fresh dismissals, etc. If, however, from the moment of the first dismissals and the first reductions in private investments, the public authorities increase their expenditure, *this onward march of the crisis is blocked.* It comes to a standstill until the inherent forces of the system bring about recovery.

We observe this at once if we compare the beginnings of the post-war recessions with those of the two big pre-war crises. It is seen that the size of the initial decline is not greatly reduced, especially if one takes the beginning of the 1957 recession, compared with 1929; what distinguishes these recessions from the pre-war crises is that they *halt* at this stage.

* See Chapter 10, section "Redistribution of the national income by the state".

† It must be stressed that the permanence of an arms economy has undoubtedly stimulated an "inventions explosion" since the Second World War, many military inventions finding application in civil life too. The boom of the 1950's was to a large extent due to this "explosion".

‡ See Chapter 11.

PERCENTAGE CHANGES DURING THE FIRST NINE MONTHS OF CRISIS IN THE U.S.A.

	1929–32	*1937–38*	*1948–49*	*1953–54*	*1957–58*
Employment (except agriculture)	− 6·5	− 7.1	− 3·5	− 2·9	− 4·2
Gross national product	− 5·5	− 7·8	− 2·6	− 2·7	− 4·1
Industrial production	−15·9	−30·4	− 7·4	− 9·8	−13·1
Volume of retail sales	− 6·1	−11·4	− 1·4	− 0·3	− 5·1
Orders for durable goods	−26·5	−39·5	−21·6	−14·3	−20·1[124]

The state cannot, however, create any amount of extra purchasing power it likes; and, the bigger the recession, the bigger must be the creation of "replacement" purchasing power, and the more this promotes the tendency to inflation. The dilemma confronting the state in the age of declining capitalism is *the choice between crisis and inflation*. The former cannot be avoided without intensifying the latter.

At first sight, the "moderate" inflation caused in the capitalist countries of the west by the increase in unproductive public expenditure does not appear to threaten the future of capitalist economy. For this reason, many specialists briskly call on the state to ignore this "pseudo-danger" and to undertake general deficit spending in increasing proportions.

This is, however, a short-sighted view. The tendency to more or less permanent inflation causes many hindrances to the normal functioning of capitalist economy. It encourages speculation and increases the insecurity which hinders "normal" investment activity. It disorganises or obstructs the mechanisms which, in the classical style of the age of free competition, normally bring about recovery. There are no more reductions in prices, even in recession periods. Consumers' purchases no longer play the role of a factor in recovery. The fall in the rate of interest no longer causes investments to rise to a serious extent, etc. Thus, already during the recession of 1957–58, the governments of the United States and Britain hesitated to apply the familiar remedies for quickly liquidating the crisis, for fear of fostering a rise in prices even before recovery had begun—as moreover, promptly occurred, in spite of the modest amount of additional expenditure.

This does not mean that the capitalist state will be able to allow itself the luxury of passively watching the development of a major crisis. In the *political and social* world context of today, that seems to be out of the question. Such a crisis would bring about the collapse in short order of capitalism in a number of countries, which would see before them the example of societies with a planned economy, free from unemployment and already enjoying a rising standard of living. Capitalism will thus choose to employ the "anti-cyclical" techniques. But it will do this hesitatingly, with many misgivings, and, finally, it will not prevent inflation from getting worse. The capacity of the currency to resist—which, by definition, is limited in time—thus appears

as the insurmountable barrier against which, in the long run, the moderating intervention of the state in the economic cycle is brought up short. The contradiction between the dollar as an anti-cyclical device in the United States and the dollar as money of account on the world market has already become insurmountable. It finds expression in a tendency to deficit in the United States' balance of payments.

But cannot the substitution of *productive public expenditure* for unproductive expenditure avoid both crisis and inflation? Productive expenditure can be of two kinds: productive consumer expenditure or productive investment expenditure.

The former is in contradiction with the very logic of capitalism. To take from the non-wage-earning classes amounts of the order of 20 to 30 billion dollars a year so as to redistribute them among the wage-earners (their families or the unemployed) would not be agreed to by the bourgeoisie except in circumstances in which it had already *de facto* lost political power—and then even more radical remedies could be adopted. Moreover, the long-term effects of such measures would be disastrous for capitalism. They would tend to increase considerably the minimum subsistence wage, the "elements historically regarded as necessary" in this wage, and this not as a result of an increase in the productivity of labour but through a *real* redistribution of social income, that is, through a *considerable reduction in the rate of profit*. There is no historical precedent permitting us to suppose that the bourgeoisie would be ready to agree to such a transformation in its régime.

It is the same with the state's productive investments. These would in practice create competition with the private sector at the very moment when the latter was already complaining about overproduction and excess capacity. It is true that productive investment might be diverted into "new" sectors which required substantial outlay while not yet guaranteeing a "normal" return (e.g. the nuclear power industry). Such investments would, however, merely prepare better conditions for profitability, and would very soon give rise to pressure by capitalists for the private sector to benefit from the good fortune. Further, it is out of the question that possibilities of investing sums of the order of *several dozen billion dollars* a year should exist in these new branches.

There remains the question of unproductive investments of a particular kind, those which entail *indirect savings* for capitalism: hospitals and improved health services (which cut down costs arising from employees' sickness); improved roads (which reduce transport costs); improved education (which shortens the periods of apprenticeship for workers and other employees); etc.[125]

Expenditure like this, even if "inflationary" in its immediate effect, would in the long run reduce long-term inflation by increasing the

productivity of labour obtained with a definite stock of capital (and of money). Nevertheless, it is equally improbable that the capitalist would allow a substantial increase in this expenditure. Even a writer like Strachey, though he seems to rely on this factor, has to admit that a fierce resistance is to be met with on this front, in capitalist circles; this resistance wavers only when it is a matter of expenditure on armaments.[126]

Finally, it must not be forgotten that a capitalism which knows "only" recessions is certainly not a crisis-free capitalism, it is merely a capitalism with less disastrous crises than those of 1929–39. All the reasons given in Chapter 11 which determine the inevitability of cyclical fluctuations remain valid. *In absolute quantities*, the loss and waste caused by these recessions are substantial, and continue to testify regularly against the capitalist order, exhorting us to replace it by a more rational economic and social system.

Thus, during the American recession of 1957–58 alone, the number of wholly unemployed exceeded 5 million, that of partly unemployed 2·5 million. United States production suffered, during those two years, a loss of nearly 100 million tons of steel* and nearly 5 million motor-cars, losses comparable to those of the 1929–33 crisis. The idea that the workers will agree indefinitely to be doomed to unemployment every four years, or at least threatened with it, and that they will regard this state of things as normal and ruling out any need to transform it structurally, does not seem to be at all realistic. In this sense, too, no proof has so far been provided that capitalism has "overcome crises".

The laws of development of capitalism in its age of decline

The time has come to attempt to synthesise the various tendencies in present-day capitalism which we have described in various places in this work.† To what extent do these tendencies conform to the general laws of development of the capitalist system, as Marx formulated them during the nineteenth century? Have new and contradictory tendencies appeared?

Monopoly capitalism and universal cartellisation of the economy have led to the co-existence of a group of different rates of profit (ranging from the highest rate, that of the monopoly sectors, to the rate in the sectors subject to more or less "normal" competition: retail trade, etc.). The power of the big monopolies generally speaking prevents the flow of new capital into the sectors which enjoy the highest rates of profit, save in altogether exceptional circumstances

* To be precise, 33 million tons in 1957 and 61 in 1958.

† Cf. Chapter 6, on distribution costs and the services sector; Chapter 7, on institutional credit; Chapter 8, on state credit as the essential source of the creation of currency; Chapter 9, on crises; Chapters 13 and 14, etc.

(wars, reconstruction, military conquests, etc.)* From this circumstance are derived the phenomena of self-financing and "overcapitalisation" in the monopoly sectors. From this also are derived the spread-over in time of investment projects, the increasing role of the state as "extra market" for excess capital, and a certain moderation of cyclical fluctuations.

But these very tendencies also promote tendencies in the opposite direction, to some extent of a "compensatory" nature. The larger the number of branches of industry in which penetration and primitive accumulation are found to be impossible, the more extensive become the sectors *outside of industry* towards which small and medium capital flows. This is an additional reason why the "services" sector has grown so much in our era.† As the organic composition of capital in this sector is markedly lower than in industry a certain recovery in the average rate of profit is thus achieved.

Furthermore, if the monopolies strive to put off as long as they can the introduction of certain technical improvements which threaten existing fixed investments, these improvements are increasingly likely, nevertheless, to be introduced, at first on the periphery of large-scale industry, and then *en bloc* and in a big way, at fairly well-spaced intervals, by the monopolies themselves. During these periods the useful "life" of fixed capital is shortened. This partly explains the reduction in the duration of the cycle which is observed thenceforth (on the eve of the First World War and after the Second).

The monopolies are not merely forced to behave in this way through fear of competition on the part of "new industries". These sudden flare-ups of technological revolution‡ which from time to time interrupt the tendency to long-term stagnation are also a retort to the strengthening of the trade-union movement and to the tendency for real wages to improve, which they themselves seem temporarily to have encouraged.

The reduction in cyclical fluctuations, the reduction in the amount of unemployment, involve the risk, in the long run, of depressing the rate of surplus value, or at least of delaying its increase. The chief reaction by capital to the tendency of the rate of profit to fall would thus be hindered. Technological advances such as the introduction of

* "[In oligopolistic industries] the internal accumulation . . . tends to exceed the amount required for expansion of capital equipment in these industries. The flow of the 'surplus' funds into other industries is impeded by the additional effort required for entering new lines which weakens the incentive to invest for the owners of these funds."[127]

† For other aspects of this question, see Chapter 6.

‡ These flare-ups are now-a-days more and more a by-product of rearmament and war economy. In this sphere technological research goes on literally without a stop, and leads, after a more or less substantial interval, to the peaceful use of the discoveries and inventions.

conveyor-belt working or of automation (with forty years between them in the United States) make it possible both to "reinforce" the industrial reserve army and to increase rapidly the productivity of labour. Thenceforth they raise the rate of surplus value.

The development of new industries;[128] "aid to under-developed countries"; extension of state expenditure both military and non-military; growth of "distribution costs" and of the tertiary sector, all play the same role of safety-valves for capitalism in decline. By offering fresh fields of investment to capital they temporarily offset the tendency to long-term stagnation and the plethora of capital without prospect of paying investment. The industrialisation of the under-developed countries, the rapid spread of technological revolutions to all branches (including distribution), rampant inflation, all these work in the opposite direction.

On the purely economic plane, this evolution need not lead to an automatic collapse of capitalism, even when half of all capital lies asleep in the banks or is serving to finance public works which are "absurd" from the capitalist standpoint. But socially and politically the period of capitalist decline educates the working class to interest itself in the management of enterprises and the regulation of the economy as a whole, just as "free-competition" capitalism educated the working class to interest itself in the division of social income between profits and wages. There results from this a *potential enhancement* and sharpening of the class struggle, to which the bourgeoisie can react in two ways: *the Welfare State*, or *Fascism*.

Welfare State and Fascism

It would be possible to draw up, looking at the matter from the standpoint of the wage-earners' interests, a scale to show the comparative value of the various forms of public expenditure and of the different ways they are combined. At one extreme would be the "ideal" of the Welfare State—we mean the "ideal" and not its more or less deformed realisation—devoting all its expenditure to improving the position of low-income families and to purposes of public utility. At the other extreme would be the Fascist State in its most thoroughgoing form, "redistributing" in favour of the manufacture of arms, and in general, of heavy industry, part of the income of bankers, manufacturers in the sphere of the light industry, traders, the middle classes, and, above all, the wage-earners (through wage-freezing and forced saving,* made possible by the suppression of the trade-union movement).

The latter solution is not an "ideal" one from the standpoint of the capitalists: it gives rise to an intensification of all the social tensions, which, in the long run, means risking shipwreck of the capitalist order.

* *"Eisernes Sparen!"*

But it does correspond to a need in so far as too limited social reserves, a currency already too much undermined, too restricted fields for private investment, make impracticable the policy of the Welfare State. The technique of pump-priming* is then essentially the same as in the Anglo-Saxon or Scandinavian settings.[129] But its purpose is more exclusively confined to the armaments sector. In Nazi Germany, between 1933 and 1939, the national income increased by exactly the same amount as military expenditure.[130]

The significance of this policy is clear—to bring about a recovery in the rate of profit at the expense of the working class,† which is deprived of its political and trade-union means of defence. It amounts, in fact, to a *militarisation of labour* such as occurred in Japan and which was adequately described in the following lines:

> "Labour management is satisfactory, on the whole, at the medium-scale and larger mines. The morning scene between 5.30 and six o'clock at the march-off places of mines impresses one with the change that war has wrought. The workers line up into sections and march to their respective places of work like infantrymen to their posts or airmen to their planes. The hours of work are 10 hours on day-and-night shifts, from 6 a.m. to 4 p.m., but since workers cannot come out of the pits until their day's task is done the actual hours put in are 12."[132]

In the extreme form which it assumed, above all in Germany, during the Second World War, Fascism goes beyond the militarisation of labour, to the abolition of free labour in the strict sense of the word, to a return to slave labour on an ever larger scale. The "economic laws" which this labour obeys are specific laws which no longer have anything in common with the laws of capitalist economy: the latter has precisely this characteristic, that it is able to "integrate" at a certain level all the earlier forms of exploitation of labour, without thereby repudiating its own purpose, namely, the profitable use and accumulation of capital.

"This . . . means that a last stage of capitalism, working in a dictatorial political environment, tends to become a slave state. It becomes so as soon as competition disappears from the crucial labour market also. For then the employers—transformed into slave owners—attempt to wring by force the entire surplus‡ out of finally powerless workers.

* See Chapter 18, section: "The Keynesian revolution".

† In Nazi Germany wage rates were frozen. In principle, so also were prices, but in practice, while the prices of capital goods did not increase, those of consumer goods increased officially by 8 per cent, and in reality by nearly 25 per cent, between 1933 and 1937. Nominal wages rose by 8 per cent only.[131]

‡ This expression is not a happy one. What is characteristic of forced labour is not that the slaveowner takes possession of the social surplus-product but precisely that the mere idea of a necessary product, of a subsistence minimum, is completely deprived of meaning. The "payment" of labour is lowered so as not merely no longer to ensure survival in good health but even to imply certain death within a brief period of time.

In such a system 'the labour problem' is reduced to one simple question: At what speed is it most economical to work your labourers to death? This important issue was earnestly debated between Roman senators on their latifundia two thousand years ago, by the squirearchy of the old South in the last century, and between the gentlemen of the I. G. Farben's Vorstand [Board of Management] and the S.S. in our own day."[133]*

However, this form of super-exploitation of slave labour is compatible with capitalist economy only to the extent that it constitutes a by-product (even if a large-scale one) of this economy and not its *principal* aspect. The slaves working on the plantations could not *buy* the cotton which their masters took from them. The slave-labourers of Nazi-Germany were unable to buy the products of German industry. Were the majority of the subjects of capitalist society to be transformed into slaves, this society would thereby cease to be based on the production of commodities, and so would cease to be a capitalist society. This stage has not yet been reached, even in Nazi Germany. And it is not very likely that mankind will experience such a horror—the return to a slave-owning society as the dominant form of the mode of production—even as the price to be paid for a further delay in the advent of socialism.

Since, on the other hand, no state can put up with such social tension over a long period, a more lasting solution has to be sought in order to guarantee and increase capitalist profits.

This is why the Fascist form of managed economy inevitably evolves towards war economy, that is, towards the creation of the means needed to conquer markets and fields for investment of capital, which would make it possible to apply solutions of the "Welfare State" type and reduce social tension. But, at the same time, a managed economy of the "Welfare State" type is less and less capable of avoiding considerable economic recessions by its limited state investments, while investments of a larger order can be realised only within the setting of an economy of rearmament and war.

What this means is that no absolutely insuperable barrier actually separates the "Welfare State" economy from the Fascist economy. On the other hand, a few elements of the "Welfare State" are embodied in the Fascist economy; under Hitler, too, the unemployed, put back to work, saw their standard of living rise. On the other, the "Welfare State" economy has a tendency to transform itself into a

* To this could be added the examples of the Indians of Peru, worked to death in the mines by the *conquistadores* (Strachey mentions this example in another place), of the black slaves in the West Indies who died by thousands from privation and punishment, and of millions of other victims of modern colonialism, no less cruel than Nazi imperialism, but exerting its cruelty against men of other races and thus producing much less of a violent reaction on the part of "respectable" Europeans.

rearmament economy, sometimes introducing a series of phenomena typical of the Fascist economy, even in the richest capitalist countries: squeezing of civilian consumption and of production of consumer goods, forced saving, financing of rearmament partly from social security funds, etc.*

The economic policy of the bourgeois states is thus evolving towards a combination of elements of the "Welfare State" (more or less real, more or less demagogic, depending on the comparative wealth of the capitalist country concerned) and "Fascist" elements (safeguarding of profit by reduction in the standard of living of the masses). State guarantee of profits and the increasing fusion of the monopolies with the state lead to the fundamental role played by state contracts and public investment in keeping up a normal level of business activity. But this increasing economic role of the state means at the same time the violent compression of social and international contradictions, and so intensifies the advance of capitalism towards explosive outbreaks of war and revolution.

The age of the managers?

Berle and Means startled the academic world in 1932 by showing something which was well known to Marxists,† namely, that the development of joint-stock companies had resulted in a *de facto* separation between the owners and the administrators of big capital. James Burnham[135] hastily drew from this the conclusion that the capitalists had lost control of modern industry to "managers" who were similar to the bureaucrats who run Soviet society.‡ Since that time this claim has been repeated on numberless occasions; many socialist theoreticians regard it as proved (cf. André Philip, at the Montrouge congress of the P.S.A.). Nevertheless, it has not been proved at all.

Half a century ago, Henri Pirenne drew attention to the phenomenon of specialisation and of the *discontinuity of the leading groups of the bourgeoisie*.[136] It was not the Lombards or the Jews, specialising in usury (credit to kings) who, in the tenth, eleventh and twelfth centuries, became the first big merchants and extended the sphere of operation of capital in the reviving centres of trade. Similarly, manufacturing capital was not developed in its most mature form by the financiers who dominated the bourgeois world in the fifteenth and sixteenth centuries. In turn, it was not the big manufacture-owners who were to carry

* Cf. developments in France in recent years, the "strong state", Gaullism, etc.

† See Marx, *Capital* Vol. III, part 1, and Hilferding, *Das Finanzkapital*.[134]

‡ Burnham crowned this rash judgment with the "proof" provided by the German-Soviet pact. Hardly had his book appeared than war broke out between Nazi Germany and the U.S.S.R.

through the industrial revolution, nor the big innovating industrialists who were to create the first big monopoly trusts. *Change in the leading personnel* of the capitalist world is thus in no way synomymous with the replacement of the bourgeois class by another.

It has been stressed that the managers of big monopoly companies control enormous amounts of capital, quite out of scale with what they themselves own. This is true. But far from finding in this fact the negation of capitalism, we find in it only an ultimate consequence of the law of concentration of capital, which always operates by the way of the expropriation *de facto* (the legal aspect often being much more obscure . . .) of many capitalists to the advantage of a few.*

The decisive question is whether the managers behave in their social role in a different way from the bourgeoisie, whether they are indifferent to private property or even fight against it, whether they engage in struggle with the leading circles of big capital, whether they mostly spring from the bourgeoisie or from the working class. Practical experience shows that great "administrators" who have reached the summit of their careers amass large fortunes, become big bourgeois, and regard as the logical culmination of their "success"—marriage with the daughter of a big banker or of the head of a big industrial monopoly, so becoming absorbed into the top strata of the big bourgeoisie and its "great families". In the United States, moreover, two-thirds of all the higher cadres, and three-quarters of the financial cadres, themselves originate from the *élite* of society.[137]

Among these great administrators the accumulation of capital takes place as much by way of the payment of princely salaries as by the distribution of free shares, the possibility of making huge gains without any risk by means of "options",† the advantage of sumptuous "expense accounts",‡ the acquiring of information which enables them to conduct profitable speculation on the stock exchange. The results are there to be seen, moreover: when Mr. Charles Wilson became Secretary for Defence, after a "managerial" career with General Motors, he had 2·5 million dollars' worth of shares in "his firm". M. Gillet, who rose to be head of the biggest finance group in Belgium, the Société Générale, accumulated dozens of millions of Belgian

* See Chapter 7, section on " 'Democratisation' of capital?"

† When a new issue of shares takes place, the directors have the right to "take an option" on some of these shares. If the latter fall in value on the stock exchange, the directors can decline to buy them. If they rise in value, the directors will take them up and sell them at that moment, thus making millions without venturing a penny. The weekly *U.S. News and World Report*[138] says that this is the only way nowadays of rapidly becoming a dollar millionaire.

‡ In London and New York, many luxurious cars are maintained and many of the most expensive restaurants and hotels are in business only on the basis of "expense accounts".

francs. During the four years 1954–57 alone his fees, apart from anything else, amounted to nearly 40 million francs! The success of the great "managers" is thus merely a periodical (and classical) rejuvenation of the big bourgeoisie by the assimilation of fresh elements.

A close study of American, British and French big capital shows, moreover, that the true antagonism is not between shareholders and managers but rather that which, in Joan Robinson's words, opposes those shareholders who are "insiders" to those who are "outsiders".[139]*

The former are the big shareholders who take part in the management of enterprises (even if only as *financial* experts); the latter are passive shareholders, *rentiers* more or less. Even if they possess only a small percentage of the shares of a company, the "insiders" are none the less capitalists, and often franc billionaires. There are few managers or none among them: General Motors is, in fact, controlled by and on behalf of the Du Ponts, not Charles Wilson. Study of the majority of the large British firms shows the same situation.†

Finally, C. Wright Mills, the brilliant American sociologist, has shown that the "managers" predominate only at the level just below the summit; it is the heads of monopolies, the "great families", who remain supreme on the summit itself.[142]

The bankruptcy of capitalism

According to Vauvenargues, hypocrisy is the homage rendered by vice to virtue. By analogy, it can be said that the increasing practice of intervention in the economy by the state is an involuntary homage rendered to socialism by capital.

True, increasing state intervention in the economy, the growth of a "public" sector, and even the nationalisation of certain unprofitable branches of industry do not amount to "socialism". An economy can no more be "a little bit socialist" than a woman can be "a little bit" pregnant. State intervention, management of the economy, operate within the framework of capitalism, in order to consolidate capitalist profits, or at least those of the decisive sections of the capitalist

* Cf. the similar observation made regarding France by M. H. Ehrmann: "It seems that in France the owners of family businesses, members of a closely united class, are tenacious and influential enough to impose their outlook on those who come in from outside. For many managers of firms, their functions are as fully 'personal' as those of a factory-owner. The power of bourgeois traditions is great enough to unite the managers, even those who come from the public service, like M. Richard, and some of the most outstanding persons in the present-day employers' movement. The differences of mentality which continue to exist are often more apparent than genuine. The real antagonism is above all that between the heads of big firms, whether they be managers or owners, and those of small, old-fashioned firms."[140]

† See in Chapter 7, section on "'Democratisation' of capital?", the figures given by Professor Sargant Florence.[141]

monopolies. If at the same time they have the long-term effect of undermining the foundations of the régime, this is only another manifestation of the contradictions which are tearing capitalism apart.

In its declining phase, capitalism intensifies a number of its inherent contradictions. It intensifies the contradiction between socialised production and private appropriation. The socialising of production takes a particularly obvious form in the attempt to sum up all the economic activities of the nation in *economic budgets*, in *national balance-sheets*. But officially *recognising* in this way the *de facto* socialisation of economic life, and *abolishing* the private ownership and management of the economy which prevent its rational organisation, are two different things.

It intensifies the contradiction between the organised, planned character of the production process *within the enterprise*, the trust or even the branch of industry, and the anarchy of capitalist economy *as a whole*. The idea of planning is accepted and applied by the bourgeoisie; indeed, one can even say that it is of bourgeois origin. But the bourgeoisie accepts and adopts it only to the extent that it does not imperil the *profit motive*, does not embrace the whole of economic life, substituting production to meet need for production for profit.

It intensifies the contradiction between the progressive international unification of the economy and the retention of the motives of capitalist profit which dictate the international operation of capital. The problem of under-development confronts the conscience of the world. Under-capitalisation is admitted to be the cause of this phenomenon. The over-capitalisation of the big capitalist countries is so marked that huge unproductive expenditures are needed in order to save them from long-term stagnation. Yet, nevertheless, no effective effort is undertaken, nor can it be undertaken, to help to bring about the *industrialisation* of under-developed countries in a *disinterested* way.

It intensifies the contradiction between the tendency for the productive forces to advance and the obstacles which block this advance owing to the very existence of capital. Does it seek to escape from them by stimulating the purchase of its products? Then the profitability of the operation is itself brought into question. Does it seek to escape by increasing unproductive investment? Then the slow devaluation of the currency ends by bringing about that very long-term stagnation that the system was initially trying to escape.

Never, on the world scale, has there been such a crying contrast between the enormous wealth potentially at the disposal of all mankind, and human poverty, along with waste or under-employment of human and technical resources, as there is today.* If men do not learn

* "But, it will be asked, why is it not possible for the producer to expand his capacity step by step as his market grows? The reasons for this are obviously the indivisibility and durability of plant and equipment. Only if

to reorganise their society in accordance with the same scientific methods which have enabled them to win splendid victories over nature, the productive forces threaten to transform themselves once more, and this time finally, into forces of collective destruction, of nuclear war.

plants were more easily divisible and the economies of large scale did not exist, or, alternatively, if plants were scrapped and rebuilt at shorter intervals, could adjustment of capacity proceed evenly. This possibility exists, to some extent, for the community as a whole, where an expansion of output can be made possible by a gradual extension of capital equipment. But the individualism of a competitive system does not permit this solution. Each of the competing producers wants to take part in an eventual expansion of sales and not to have it snatched away by new competitors . . . Thus, a *planned* and deliberate reserve of excess capacity is at all times, held by most producers, with good reason from their point of view, even though a part of it, at least, is waste from the point of view of the community."[143]

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CHAPTER FIFTEEN

THE SOVIET ECONOMY

THE Soviet economy of today is the outcome of contradictory factors. On the one hand, the backward conditions of old Russia, with its immense natural resources hardly skimmed by industry, and the predominance of rural economy, broken up into 25 million separate peasant holdings. On the other, the conquest of power by the Bolshevik Party in 1917, and the conscious effort undertaken by the Soviet state which thereby came into being to build, in this huge country, isolated in the midst of the bourgeois world, an economy qualitatively different from capitalism.

Like every other human society, Soviet society is characterised by certain *constants* of economic activity. The social product is divided between necessary product and surplus product. Part of the surplus product is devoted to developing the instruments of labour, the means of production. The particular way in which this surplus product is appropriated determines the special dynamic of the economy, whose laws have to be revealed. This special dynamic can be seen most clearly through a study of the different stages through which the economic policy of the Soviet state has passed since October 1917.

Stages of the Soviet economy

The Bolshevik leaders who headed the state that emerged from the revolution of October 1917 had no intention of building a complete socialist society in their country. They shared the unanimous view of the Marxists of that time, according to which such an undertaking required definite material pre-conditions: the predominance of the large industrial factory over the small one, and of industry over agriculture; a high level of development of the productive forces; a correspondingly high level of technical skill and culture on the part of the workers.

These conditions were largely absent in the Russia of 1917. The Bolshevik leaders at that moment saw the victory of their new nation as merely one link in a chain of international revolutions; victorious revolutions in industrially advanced countries, especially in Germany, were to create the starting basis necessary for a rapid transition to a socialist economy.*

* "When three years ago, we raised the question of the tasks and the conditions of the proletarian revolution's victory in Russia, we always stated emphatically that victory could not be permanent unless it was followed up

The delay, and then the defeat, of this international revolution set the ruling party a series of problems that were quite new and had not been solved by classical Marxist economic theory. The party found a series of answers to these problems which differed according to many factors which influenced the party's practice, factors among which the most important were, in the last analysis, the relation of forces between the classes on the international and national scales, and the predominance at different times of different social pressures which were brought to bear on the party.

The programme of the first Bolshevik government did not envisage the immediate expropriation of all the capitalists. It envisaged only the universal establishment of workers' supervision of production, the workers having as a first stage to apprentice themselves to the task of management by checking on the capitalist managers.[2] It further envisaged the nationalisation of the banks, after these had been previously merged into a single national bank; the progressive nationalisation of the chief monopoly-controlled sectors of the economy; the non-recognition of foreign debts; and the nationalisation of the land and subsoil, together with division of the land among the peasants. All these measures taken together would not have meant a qualitative overturn in the social structure of Russian economy.

However, the impetuous development of the workers' initiative; non-co-operation, and then sabotage, on the part of the industrial and administrative circles; the unleashing of the White Terror, followed by the Red; the outbreak of a widespread civil war which tore the whole country in pieces during a period of three years; the intervention of foreign armed forces in this war—all these events upset the long-term projects of the Bolshevik government and pushed it on to the path of rapidly changing the economic structure. The nationalisation of the banks, of wholesale trade, of all industry, and of all foreign property, and the establishment of a state monopoly of foreign trade, had created by the end of 1918 a new economic and social structure in Russia.

Under conditions of a besieged fortress, an economic system called "War Communism" was organised. The planning of all economic activity was rather a measure of *rationing* than of planned *development*. The production of commodities was restricted as much as possible. All trade was nationalised by a decree of 21st November, 1918. A large proportion of the wages of workers and officials was paid

by a proletarian revolution in the West, and that a correct appraisal of our revolution was possible only from the international point of view. For victory to be lasting, we must achieve the victory of the proletarian revolution in all, or at any rate in several, of the main capitalist countries. After three years of desperate and stubborn struggle, we can see in what respect our predictions have or have not materialised,"[1] declared Lenin in 1920.

in kind: the proportion of all wages paid in kind amounted on the average to 27·9 per cent in the second half of 1918 and 93·7 per cent in the first quarter of 1921.[3] Exchange between town and country shrank and became reduced to barter. Armed detachments of workers had to extort from the peasants the supplies of food needed for the towns (decree of 6th August, 1918). Industrial production underwent a steep decline, becoming more and more restricted to supplying the army*. The currency collapsed under the weight of galloping inflation. The whole of economic activity was dislocated.

After the victory won by the Red Army in the civil war, a victory which coincided, however, with an ebbing of the revolutionary movement in the rest of the world, the Bolshevik government considered that a recovery of the productive forces was the basic condition for the régime's survival. To this end, a retreat was organised from the extreme forms of elimination of all commodity production which had been characteristic of "War Communism". This was the "New Economic Policy" (N.E.P.). A tax in kind took the place of requisitions, leaving in the peasants' hands a surplus of agricultural produce which they could sell on the market. The freedom of wholesale and retail trade was restored. In 1923, 91·4 per cent of trading enterprises were private concerns, and these accounted for 83·4 per cent of the total trading turnover. The financial system was cleaned up,[5] the rouble stabilised, the payment of wages in kind abolished. Trade relations with the capitalist countries were re-established. Foreign capital was offered concessions on Soviet territory so as to hasten the development of productive forces. Crafts and small-scale industry were allowed to develop freely. In 1923 there were 147,471 small private industrial enterprises, employing 12·4 per cent of the total industrial labour force. In 1925–1926 these enterprises provided 20 per cent of all industrial production.

The N.E.P. thus achieved undeniable successes. In 1926 the level of development of the productive forces, in industry as well as in agriculture, reached and surpassed that of before the war. In 1927–28 the average real wage was double what it had been in 1908 and nearly 90 per cent more than in 1913.[6] The government began to make use of the available resources in order to develop state-owned industry.

But this development lagged behind the restoration of agriculture and the increase in the population. It further showed itself inadequate to meet the needs of the peasants for industrial consumer goods and to absorb the labour available in the countryside. Thus there developed, together with chronic unemployment in the towns,† the two classical

* The output of large-scale industry fell from 100 in 1913 to 12·8 in 1920, that of small-scale industry to 44·1 per cent, that of the textile industry to 5 per cent and that of the steel industry to 4 per cent of 1913.[4]

† This stayed around 1,250,000 all through the N.E.P. period.[7]

evils of agriculture in backward countries: the phenomenon known as the *scissors*, between agricultural and industrial prices, and rural overpopulation.*

At the same time, a class differentiation was taking place among the peasants.† The kulaks, the rich peasants, concentrated in their hands a large proportion of the agricultural surplus which came on to the market. Strumilin stated in 1923 that only 15–20 per cent of the peasants had wheat to sell.[11] The tax in kind, which was not progressive until 1926–1927, encouraged this concentration, together with the lack of reserves and of means of transport on the part of the poor peasants.‡

In exchange for this agricultural surplus, indispensable for the feeding of the towns and for making possible industrial accumulation, the kulaks demanded an adequate supply of industrial goods. In the absence of such a supply in the form of Russian products, they looked towards the world market for the satisfaction of their needs. This would have meant a coming together of the semi-capitalist forces inside the U.S.S.R. with the capitalist forces in the rest of the world. The break-up of the monopoly of foreign trade would have destroyed all possibility of rapid industrial development in Russia.

In fact there arose in 1923 a discussion within the Bolshevik Party about relations between the state sector (essentially consisting of large-scale industry) and the private sector, mainly agricultural and commercial. In this discussion the Opposition upheld the idea of a more rapid industrialisation, both to prevent this joining together of the Soviet rich peasantry and the world market and to maintain the alliance between the workers and the peasants, by giving increasing satisfaction to the peasants' need for manufactured consumer goods. For the same

* On 1st October, 1923, when the scissors were at their widest, the index of agricultural prices stood at 49, and that of industrial prices at 275·7 (100=level of 1913).[8] After a relative improvement in the situation in 1924–1925 the gap again became threatening in 1926 and 1927. In 1927 the peasant received for one quintal of rye only 50 per cent of the amount of salt, sugar, tobacco, textiles and metal articles that he could obtain in 1913 for the same equivalent.[9]

† In 1926, 70 per cent of the peasants with less than 2 hectares of land, 37 per cent of those with between 2 and 4 hectares, and 20 per cent of those with between 4 and 6 hectares had to hire draught animals and agricultural implements in order to plough their land. Four per cent of the holdings possessed 50 per cent of the agricultural machinery.[10]

‡ In 1924, at the 13th Congress of the Russian Communist Party, Kamenev estimated that 8 per cent of the holdings (representing 14 per cent of the peasants) accounted for 25 per cent of the cattle and draught animals and 34 per cent of the sown area.[12] The poor peasants had to sell their grain to the kulaks for lack of carts to take it to the market. Immediately following the harvest they had to sell their small surplus at low prices in order to supply themselves with industrial goods, whereas they bought back this corn from the same kulaks, at high prices, on the eve of the next harvest.

reason, the Opposition was the first to insist on the need for a general plan for industrialisation and accelerated accumulation in large-scale industry.[13]

The majority of the Central Committee opposed this idea. Mikoyan in 1924 attacked Trotsky's idea of a unified plan of development as "the height of utopianism".[14] Stalin declared that the U.S.S.R. had as much need of Dnieprostroy (the first great hydro-electric project) as a peasant without a cow had of a gramophone (minutes of the Central Committee meeting of April 1926, quoted by Deutscher).[15] Expounding the official thesis in their outline of political economy published in 1927, I. A. Lapidus and K. Ostrovityanov wrote about:

[Preobrazhensky's] "idea of super-industrialisation of the country by means of exploitation of the peasantry through high prices of manufactured goods, an idea which he has systematically and perseveringly advocated during the last few years, in consistency with this theory. . . It is clear that from the principles developed by Engels and Lenin our conclusion must be quite different. Prices must be low so that the peasant will feel the difference between a bourgeois and a proletarian dictatorship and their relation to small production, so that the peasant may be able to accumulate [!], so that his enterprise may not decline but progress, so that small production may be able, not in words but in fact, to avoid the capitalist path of development . . ."[16]

And Maurice Dobb, who has always faithfully interpreted the official theses of the leading circles of the U.S.S.R., wrote so late as 1928:

"The question 'Whither Russia?' which Trotsky made the title of his book [translated into English as *Towards Socialism or Capitalism?*] depended for its answer on conditions somewhat wider than those which he postulated: it depended, not merely on whether State industry would advance more rapidly in the future than other elements in Russian economy—more rapidly even than industry in other countries—but on whether either in the town or in the village old class differences were beginning to reappear. . . The official reply to the opposition criticism, therefore, partly took the form of a denial that the growth of the Nepman and kulak was as considerable as the opposition tried to portray. But this was not all. It also denied that the growing prosperity of the peasant was synonymous with or indicative of the revival of capitalism. Here was the basic error of the opposition, their misconception of N.E.P., their belief that state industry ought to develop at the expense of the small producer, instead of by raising the small producer along with it . . . The issue was erroneously represented as a competition between the prosperity of state industry versus the prosperity of peasant agriculture: the latter might grow more rapidly than the former and still not represent any capitalist tendency: and the growth of that very private accumulation in the hands of the

peasantry which was depicted as dangerous might be a source of strength to socialist accumulation, if it could be attracted into Co-operation, State Loans, and Savings Banks."[17]

This debate was settled by life. During the winter of 1927–1928 the kulaks seized the Soviet state by the throat. They organised a veritable strike against food supplies for the towns, as Dobb admitted moreover, in a later work.[18]* After 1928, the leading faction in the Bolshevik Party, which for years had underestimated the danger† and had refused to take adequate measures, went from one extreme to the other, owing to panic. "Super-industrialisation of the country at the expense of the peasants" was carried out on a scale that the opposition had never conceived.‡

Thereby, the Soviet people were called upon to pay a terrible tribute in order to make rapid industrialisation possible, a tribute which could have been avoided. An official writer, Krzhyzhanovsky, estimated in December 1927 that the overall targets of the First Five-Year Plan§ would require investments amounting to 17 billion gold roubles.[22] By concentrating this investment effort into 5 to 7 years (1928–1934) instead of spreading it over 10 to 12 (as had originally been envisaged and as would have been possible if accelerated industrialisation had begun in1923–1924), the yearly burden was made much heavier. Being determined, moreover, to keep short the period

* "From the end of 1927 a falling off in the collection of corn was observed which nothing [!] had warned would happen. Whereas in the last three months of 1926 4·9 million tons of cereals had been collected, the three corresponding months of 1927 gave only 2·7 million, i.e. 2·2 million tons less."[19] The statement that "nothing had warned" that this would happen is rich. The Opposition had been warning the country of this danger for years, as can be seen from the quotations from its opponents which we have just reproduced.

† Here is a typical example of this underestimation, on the part of Stalin himself.

"Everyone knows the outcry and panic raised by the opposition about a growth of differentiation [among the peasantry]. Everyone knows that no-one raised a greater panic over the growth of small private capital in the countryside than the opposition. But what is really happening? What is happening is this: In the first place, the facts show that differentiation is taking place in our country in very peculiar forms—not through the 'melting away' of the middle peasant, but, on the contrary, through an increase in his numbers, while the extreme poles are considerably diminishing. . . . In the second place—and this is the chief thing—the growth of small private capital in the countryside is counter-balanced, and more than counter-balanced by so decisive a factor as the development of our industry . . ."[20]

‡ Furthermore, this super-industrialisation led to the lowering of the real wages of the workers, an eventuality which Preobrazhensky had explicitly ruled out when he studied "socialist primitive accumulation".[21]

§ These were the targets that this same Krzhyzhanovsky had defined already at the 8th All-Russia Congress of Soviets in December 1920. These targets were achieved, respectively, in 1930 (railways), 1931 (electric power), 1932 (coal), 1933 (steel), 1934 (iron-ore, cast iron, manganese) and 1937 (copper).

of experiment and to curtail delays, the régime excessively increased the costs of the undertaking; wastage and losses were substantial.

Finally, huge resources remained unused and were later destroyed (e.g. by the killing off of their cattle by the peasants).* The fund of peasant accumulation alone which was totally lost to the national economy can be estimated at 4 to 5 billion gold roubles.[23] If to this be added the possibility of making annual savings by cutting down the overgrown administrative machine—savings which were estimated at one billion gold roubles a year—one can conclude that results a great deal more substantial than those of the first two Five-Year Plans could have been achieved without necessarily involving the terrible sacrifices rendered by the Soviet people during 1929–1933.

However that may be, the rate of increase of industrial production, at first fixed at the too low annual figure of between 5 and 8 to 9 per cent,[24] was now raised to 20 per cent, later even to 23·7 per cent, for large-scale industry. The first Five-Year Plan was put under way. Then, on 1st February, 1930, the government officially launched the policy of compulsory collectivisation, which had been announced in a speech of Stalin's on 27th December, 1929. The kulaks were "liquidated", that is, they were transported by millions to Siberia. The number of holdings collectivised leapt from 3·9 per cent in 1929 to 52·7 per cent in 1931, 61·5 per cent in 1934, and 93 per cent in 1937.[25] Twenty-five million small agricultural enterprises were merged into 240,000 producers' co-operatives, collective farms, called *Kolkhozy*, and 4,000 state farms, called *sovkhozy*.

However, Soviet industry was as yet unable to equip these collectivised agricultural enterprises with modern agricultural machinery. The delay in applying industrialisation measures—the tractor works at Tsaritsin (Stalingrad, Volgograd), which it had been decided to set up in 1924, was not built until 1929![26]—intensified this incapacity. Moreover, compulsory collectivisation came up against stubborn resistance on the part of the bulk of the peasantry. They set themselves to slaughter their animals on a grand scale during the years 1929–

* Official statistics implicitly admit this. Here is the evolution of the Soviet cattle population according to the statistical handbook: *The U.S.S.R. Economy:*

	Horned cattle	*Of which, cows*	*Pigs*	*Sheep and goats*
1928	60·1	29·3	22·0	107·0
1930	50·6	28·5	14·2(!)	93·3
1931	42·5	24·5	11·7(!)	68·1(!)
1932	38·3	22·3	10·9	47·6(!)
1933	33·5	19·4	9·9	37·3

The slaughter was thus most disastrous in 1930 (pigs) and 1931 (horned cattle and sheep). A frightful famine ensued in 1932–1933.

1933.[27] Agriculture was confronted with a growing problem of inadequate means of traction. The government was again obliged to retreat.

In 1935 the new collective-farm charter gave the peasants the right to perpetual use of a small piece of private land, which varied in size, from region to region, between 0·25 and 1 hectare. They likewise received the right to acquire as private property a house, a cow, lambs, goats and poultry.[28] These measures soon made possible a substantial increase in agricultural production, and especially in the number of livestock, while at the same time the supply of tractors to the countryside increased.

The outbreak of war in 1941 was the signal for an all-round revenge by the country upon the town. The shortage of food products, especially after the loss of the richest agricultural areas of the western part of the U.S.S.R., enabled the peasants to push up and up the prices they demanded for their products. In order to stimulate the increase of food production and improve food supplies to the towns, the government permitted the unhindered development of *collective-farm markets*, where the peasants freely sold their products to the public. Their share in total retail trade grew from 15·9 per cent in 1939 to 44·5 per cent in 1942–1943.[29] In this way a great deal of money was accumulated in the countryside: "millionaire" collective farmers made their appearance. The state endeavoured to channel off this money by issuing bonds with guaranteed life interest. But new kulaks began to get round the collective-farm charter and take possession of considerable areas of land belonging to the collective farms. Immediately after the war the amount of land affected was estimated at nearly 5 million hectares.[30]

After the end of the war and the overcoming of the reconversion crisis, the state took the agricultural situation in hand. A strict currency reform creamed off the surplus purchasing power accumulated by the peasants. A systematic campaign was undertaken against the small private holdings of the collective farmers, and especially against their ownership of animals.* Measures for the concentration of the collective farms and the establishment of "agro-towns" intensified still further this offensive in the rural areas. Coming up against the peasants' passive resistance, the stagnation of agricultural production and a fresh dangerous fall in the number of livestock, the government retreated once more (summer 1953) and once more strove to stimulate

* The review *Sovietskoye Gosudarstvo i Pravo*[31] wrote that "in the near future" the collective farmers would give up their private holdings. The decrees on the concentration of the collective farms envisaged the division of these holdings into two parts, the larger of which would be situated somewhere a long way away from the peasant's house. In March 1951 this measure had to be given up in a hurry, owing to the peasants' resistance to its implementation. But, meanwhile, the number of households possessing a cow fell from 69 per cent of all collective farmers to 55 per cent in 1953. In 1953 the total number of horned cattle had fallen below the level of 1950.[32]

the private initiative and interest of the collective farmers. After Stalin's death, the agricultural policy of the Soviet leaders underwent a series of turns which are described below.

The specific structure of the Soviet economy at this time can be defined by the following features:

(*a*) Industry, wholesale trade, and the greater part of retail trade, together with the whole of external trade, the banks and the means of transport, are nationalised. In practice, all the mechanical means of production and exchange are state property, with the exception of lorries belonging to the collective farms.

(*b*) A small sector of agriculture is also nationalised *(sovkhozy).*

(*c*) Most agricultural enterprises are producers' co-operatives, the land being nationalised but its usufruct surrendered to the collective farms for an indefinite period. The farm implements and animals of the collective farm are co-operative property. But the tractors and agricultural machinery are state property, lent to the *kolkhozy* by the M.T.S. (machinery and tractor stations) in return for payments in kind. (In 1957–1958 the tractors and agricultural machines were sold to the collective farms.)

(*d*) A fairly substantial sector of co-operative enterprise, not state-owned, also survives in the craft sphere and in retail trade. (In 1962 the co-operative sector accounted for 28·4 per cent of the total retail turnover.)

(*e*) There is also still a private sector in agriculture which includes, besides a small number of individual farms, the holdings left in the possession of each peasant household within the *kolkhozy*, together with a substantial proportion of the farm animals, which are the private property of these same peasant households. In 1937 these individual holdings represented 4 per cent of the sown area; but the total income derived by the peasants from these holdings and from their privately-owned animals represented a substantial proportion of the total product of Soviet agriculture.[33] The private sector included, indeed, in 1938, 50 per cent of all horned cattle, 55 per cent of all pigs, and 40 per cent of all goats and sheep in the U.S.S.R. After the war, in 1948, these percentages shrank to 35 per cent, 20 per cent and 20 per cent respectively,[34] not so much through an increase in the numbers of collective farm animals as through a decline in the numbers of privately-owned animals. But the private sector still possessed in 1953 half of all the cows in the U.S.S.R.[35] At the end of 1964 it had 28·8 per cent of all horned cattle (including 41·7 per cent of all cows), 27·5 per cent of all pigs, and 24·1 per cent of all sheep and goats.[36]*

* The state sector in agriculture (*sovkhozy*) was responsible in 1965 for 36 per cent of the country's entire agricultural production.

A large private sector continues to exist in the sphere of housing, made up of all the dwellings of the collective-farm peasants, together with a share of the habitable area of the towns which varied between 52·3 per cent in 1926, 36·6 per cent in 1940, 33·7 per cent in 1950, 32·9 per cent in 1955 and 38·4 per cent in 1961.

What the Five-Year Plans achieved

Thanks to this distinctive structure of the economy and what it implied—overall planning and a monopoly of foreign trade—a remarkable development of the productive forces was achieved. There is no better way of showing this than by giving the figures for the output of the chief industrial products:

	1913	*1928*	*1932*	*1937*	*1940*	*1946*	*1950*	*1955*	*1960*	*1965*
Coal and lignite (in million tons)	29·1	35·5	64·4	128	166	164	261	391	513	578
Crude Oil (in million tons)	9·2	11·6	21·4	28·5	31	21·7	37·8	70·8	148	243
Electric power (in billion kwh)	1·9	5·0	13·5	36·2	48·3	48·6	91·2	170·1	292	507
Pig iron (in million tons)	4·2	3·3	6·2	14·5	14·9	10·0	19·2	33·3	49	66·2
Crude steel (in million tons)	4·2	4·3	5·9	17·7	18·3	13·3	27·3	45	71	91
Metal-cutting machine-tools (in thou. units)	1·5	2·0	19·7	48·5	58·4	—	70·6	117·8	154	185
Steam and gas turbines (in thou. kwh.)	5·9	35·7	239	1,068	972	—	2,381	4,060	9,200	14,600
Motor vehicles (in thousands)	—	0·7	23·9	200	145·4	120·8	362·9	445·3	524	616
Radio & T.V. receivers (in thousands)	—	—	30	194	161	—	1,083	4,024	5,900	8,900
Tractors (in thou. units)	—	1·3	48·9	51	31·6	13·3	108·8	163·4	238	355
Cement (in million tons)	1·52	1·8	3·48	5·5	5·7	3·4	10·2	22·5	45·5	72·4
Window glass (in mill. sq. metres)	23·7	34·2	29·5	79·3	44·4	—	76·9	99·8	147	197
Soap (in thou. tons)	128	311	357	495	700	245	816	1,075	1,500	1,900
Woollens (in million metres)	103	97	91	105	120	71	167	200	280	466*
Cottons (in million metres)	2,582	2,678	2,694	3,448	3,954	1,900	3,899	5,904	7,200	5,500†
Leather footwear (in million pairs)	60	58	86·9	183	211	81	203	274	419	486
Crystallised sugar (in million tons)	1·35	1·28	0·8	2·4	2·16	0·47	2·5	3·4	6	8·9
Paper (in thou. tons)	197	284	471·2	832	812	517	1,193	1,862	2,400	3,400

These figures show at a glance the long road travelled by the U.S.S.R. since the victory of the October revolution. From a backward and essentially agricultural country the U.S.S.R. has become, at least as regards overall output, the second industrial power in the world, in particular for basic raw materials, electric power and machine-tools,

* In million square metres. The equivalent figure for 1960 is 440 million square metres.

† In million square metres. The equivalent figure for 1960 is 4,800 million square metres.

its output of which exceeds the combined output of Britain and Germany. The progress made by Soviet industry is not to be explained primarily by the enormous backwardness it had to overcome, in comparison with the industry of the most advanced capitalist countries. It has continued after this backwardness has already been, by and large, overcome. This progress is now proceeding especially in the directions of increase and modernisation of the country's stock of machines and of striving to automatise production. It is in this sphere that the most remarkable successes of the fourth and fifth Five-Year Plans have been won. The U.S.S.R. possessed in 1953 a stock of 1,300,000 machine tools of all kinds, double what it had before the war, whereas the second capitalist power, Britain, had in 1950 only 880,000. The American stock amounted at the same period to 1,800,000, superior in quality to the Soviet ones.

Considered, however, not in absolute figures but in relative figures, that is, per head of population, the backwardness of Soviet industry is far from having been overcome.

The annual productive capacity of *steel* stood in 1964 at 820 kg. per head of population in the U.S.A., at 1,105 kg. in Belgium and Luxemburg, at 660 kg. in West Germany, and at 375 kg. in the U.S.S.R. Here is a comparative table for several basic industrial products:

PRODUCTION PER HEAD OF POPULATION IN 1964[37]

	France	*Italy*	*Britain*	*West Germany*	*U.S.A.*	*U.S.S.R.*
Electric power (kwh.)	2,051	1,474	3,418	2,835	5,984	2,013
Sulphuric acid (kg.)	56	54	59	62	108	34
Cement (kg.)	448	436	315	579	319	285

It will be seen that production per head of population in the U.S.S.R. remains very much behind that in the U.S.A., Britain and West Germany, but that France could be surpassed fairly quickly and that Italy has already been surpassed in respect of some basic indices.*

The gap between Soviet production per head of population and that of the most advanced capitalist countries is even more considerable in the sphere of private consumption.

* This estimate, made in 1961, was confirmed three years later by Professor Abram Bergson, who evaluated as follows consumption per head of population in the U.S.S.R. and in Italy for the year 1955, in U.S. dollars of that year:

	U.S.S.R.	*Italy*
All products	492	524
Foodstuffs	193	216
Clothing	29	38
Durable consumer goods	7	4
Housing	27	31
Remainder, including education and health	236	235[38]

CONSUMPTION PER HEAD OF POPULATION IN 1962-1963

	U.S.S.R.	*U.S.A.*	*Britain*	*West Germany*	*France*
Meat and bacon (kg.)	39	85	71·5	64·5	78
Refined sugar (kg.)	36	40·6	45·9	32·0	31·6
Eggs (kg.)	7	18·7	14·1	12·6	11·2
Cotton fabrics (kg.)	3·5	7·2	2·9	4·6	4·7
Artificial and synthetic textiles (kg.)	1·6	6·7	6·3	7·5	5·0
Leather shoes	2·1	3·7	2·8	2·1	2·3
Consumption of power (in equivalent kg. of coal)	3,046	8,263	4,948	3,884	2,591

In respect of durable consumer goods and housing, the gap is even more marked. On 1st January, 1965 there were in the U.S.S.R. 52 T.V. receiving sets per thousand inhabitants, as compared with 334 in the U.S.A., 255 in Canada and Sweden, 242 in Britain, 170 in West Germany, 150 in Holland and Belgium, 110 in France and 100 in Italy. On the other hand, at the end of 1963 there were in the U.S.S.R. 205 doctors per 100,000 inhabitants, as against 170 in Italy and Austria, 150 in the U.S.A., 144 in West Germany, 110 in Britain, France and Holland, and 101 in Sweden. Per 100,000 inhabitants there were 900 hospital beds in the U.S.S.R. and the U.S.A., 937 in Italy, 981 in France and Canada, 1,022 in Britain, 1,064 in West Germany, 1,083 in Austria and 1,600 in Sweden.

Backwardness in development of consumer goods industries as compared with capital goods production was a general characteristic of Soviet planning in the Stalin era. It followed from a choice of priorities cold-bloodedly decided by the leaders of the U.S.S.R. According to Malenkov, between 1929 and 1953 638 billion roubles were invested in heavy industry and 193 billion roubles in transport, compared with only 72 billion roubles in light industry. As a result, between 1928 and 1937 production of coal, cast-iron and steel was quadrupled, and that of electric power increased sevenfold; between 1937 and 1950 production of coal and electric power doubled again, while that of iron and steel grew by 50 per cent and 60 per cent respectively. During the same periods, however, production of woollens, cottons and sugar only increased by 10, 20 and 75 per cent, between 1928 and 1937, and by 60, 10 and 4 per cent, between 1937 and 1950.[39]

Housing conditions were especially lamentable. Between 1913 and 1940 the building of houses did not keep pace with the influx of population into the towns. The effective habitable area contracted from 7·3 square metres per person in 1913 to 6·9 square metres in 1940, to reach the 1913 level again only in 1950 and attain 7·7 square metres in 1955, these figures applying to the towns only.[40] During the 1960's, in

new housing projects, an area of only 8 square metres per person was allowed for; the plan envisages over 11 million people finding new housing in the 90 million square metres to be built in 1966.[41] Density of occupation was 1·6 persons to a room in 1960, as compared with 1·0 in France and 1·1 in Italy (the two worst-housed countries in the West) in 1961–1962 0·9 in West Germany, 0·9 in Holland, 0·7 in Britain and 0·6 in Belgium—with, moreover, rooms in those countries larger than the Soviet ones.[42]

The standard of living of the Soviet citizen thus remains very much below the level which would be possible given the degree of development at present reached in the Soviet Union. Industrialisation has been carried out first and foremost at the expense of the standard of consumption of the masses: *financing the plan means enclosing consumption within an iron ring*, wrote the Soviet journal *Planovoye Khozyaistvo* in 1929.[43]*

The social character of the Soviet economy

On the basis of these facts it is possible to make an appreciation of the character of the Soviet economy and its laws of development. Contrary to what is alleged by a number of sociologists who try to make use of the Marxist method of analysis,† the Soviet economy does not display any of the *fundamental* aspects of capitalist economy. It is only forms and superficial phenomena that can lead the observer astray in seeking to define the social character of this economy.

It is true that rapid industrialisation takes the form of a "primitive accumulation" achieved by a forcible levy on consumption by the

* As regards the financial technique employed, it was done in two ways. The peasants were compelled to supply about one-third of their produce to the state, either for nothing or at ridiculously low prices, which covered only a small part of their cost of production. The workers were compelled to buy all their consumer goods in state shops, at prices hugely inflated by the turnover tax. This tax, which as a rule provides the state with from 50 per cent to 65 per cent of its revenue, is derived mostly from the sale of articles of prime necessity. In 1939, according to official Soviet sources, 52·6 per cent of the return from the turnover tax was obtained from sales of meat, dairy produce, products of the food industry and products of the textile industry.[44] In 1949 the prices of basic consumer goods were further burdened with a tax of at least 100 per cent; in the case of salt, this tax amounted to 900–1,000 per cent! Price reductions made since then have somewhat reduced this burden; but it remains exorbitant. In 1958, 42 per cent of the return from the turnover tax, amounting to 250 milliard roubles, came from the sale of consumer goods to households.[45] It should not be forgotten that this is merely a *technique*, which could have been replaced by, say, the fixing of nominal wages at a lower rate, or prices of raw materials and equipment for light industry at a higher rate.

† See Ygael Gluckstein [Tony Cliff], *The Nature of Stalinist Russia*; D. Dallin, *The Real Soviet Russia*; Amedeo Bordiga, *Dialogue with Stalin*, etc.

workers and peasants, just as capitalist primitive accumulation was based on an increase in the poverty of the people.* But, unless there is a large-scale contribution from outside, no accelerated accumulation can be carried out otherwise than by an increase in the social surplus product not consumed by the producers, whatever the form of society in which this happens. There is nothing specifically capitalist in that.

Capitalist accumulation is an accumulation of *capital*, that is, a capitalisation of surplus value with as its aim the production of more surplus value by this capital. Profit remains the purpose and driving force of capitalist production. Soviet accumulation is an accumulation of means of production as *use-values*. Profit is neither the purpose nor the chief driving force of production. It is merely an accessory instrument in the hands of the state in order to facilitate fulfilment of the plan and checking on how it is being carried out by each enterprise.

Because capitalist production is production for profit it is essentially production based on competition for conquest of markets. Even if concentration of capital has reached its highest point and the monopolies wield supreme power, competition continues in both old forms and new. It is this competition that determines the *anarchy* of capitalist production. Private decisions, taken independently of each other, decide the amount and rate of growth of production and accumulation. All "organisation" of capitalist economy is thereby doomed to remain fragmentary and insufficient.

Soviet planning, in contrast to this, is real planning, insofar as the totality of industrial means of production is in the hands of the state, which can thus centrally decide the level and rate of growth of production and accumulation. Elements of anarchy continue, it is true, within the framework of this planning, but their role is precisely comparable to that of the elements of "planning" in the capitalist economy: they modify but do not abolish the fundamental social characteristics of the economy.

Capitalist economy, subject to the tyranny of profit, develops in accordance with quite precise laws—tendency of the rate of profit to fall; flow of capital into sectors with rates of profit higher than average; concentration and centralisation of capital leading to the seeking of monopoly super-profit, etc.—from which result the particular features of its present-day phase. Soviet economy escapes completely from

* In a speech to the Central Committee of the C.P.S.U., Stalin declared in 1928 that industrialisation would impose a heavy tribute on the peasantry. This speech was not published until 1949, in Volume XI of his *Works*.[46] We deal with the theoretical problems raised by this historical fact, and the limited effectiveness of this technique of industrialisation in Chapter 16, section on "Sources of socialist accumulation" and "Maximum and optimum rates of accumulation".

these laws and particular features. Despite the immense territory open to it in Asia, beyond its frontiers, it "exports" thither very little "capital", though the "rate of profit" is certainly higher in those countries, owing to the lower "organic composition of capital" and the lower cost of labour (countries like China, North Korea, Outer Mongolia, North Vietnam, etc.). Despite the huge accumulation of "capital" in heavy industry, investments continue to go primarily into this sector, instead of spilling over more and more into the marginal sectors, as happens in capitalist economy in its declining phase. Artificial limitation of production, agricultural Malthusianism, suppression of technical inventions, not to mention periodical crises of "overproduction", partial stoppage of production, or even destruction of part of production—all these phenomena which are characteristic of capitalist economy as a whole, including the economies of capitalist countries less developed industrially than the U.S.S.R. (Japan, Italy, Argentina, Brazil, etc.) are not to be found in Soviet economy, and this has been so since 1927, that is, for a third of a century.

World capitalist economy forms a whole. Even countries which are most autarkic in policy—Japan on the eve of the Second World War, Nazi Germany, Italy in the period of the League of Nations "sanctions", etc.—are unable to exempt themselves from the general conjuncture of the world capitalist market. The outbreak of the crisis of 1929, and then that of 1938, left a deep mark on the economies of *all* the capitalist countries, not excluding the "autarkic" ones.

The Soviet economy, however, while retaining definite links with world capitalist economy, is exempt from the fluctuations in the conjuncture of world economy. Indeed, periods of most remarkable advance by Soviet economy have coincided with periods of crisis, depression or stagnation in world capitalist economy.

This being so, it is talking at cross purposes to declare that the capitalist nature of Soviet economy is shown by its competition with the other great powers (U.S.A., Germany, Japan, etc.), "competition" which primarily takes a military form. It is clear that any non-capitalist economy established nowadays over a large part of the globe would find itself in latent hostility with the surrounding capitalist world. Geographical, military, economic and commercial necessities follow automatically from such a situation. But this is not capitalist competition, which is competition for markets and profit; rather is it a "competition" which results precisely from the different social characters of the U.S.S.R. and the capitalist world, which confront each other.

Similarly, it is erroneous to regard the Soviet economy merely as the "culmination" of developmental tendencies which can be seen in present-day capitalist economy: tendencies towards total monopolisation of industry; abolition of "classical" private property; merging of the economy with the state, growing "state interference" in the

economy, and so on. Actually, Soviet economy is the *dialectical negation* of these tendencies.*

In present-day capitalist economy the "managed economy", the increasing fusion of state and economy, the occasional violation of sacrosanct private property, all exist *for the benefit of monopoly capital*, for the defence, protection and guaranteeing of its profits. The merging of the state with the economy is at bottom nothing but the total domination of the economy by the private monopolies, which make use of the state machine. In the U.S.S.R., however, the state management of the economy, the abolition of the right to private ownership of the means of production, the fusion of economy and state, have all taken place by way of *the expropriation and destruction of the bourgeoisie as a class*. Present-day capitalism is capitalism which has carried to the furthest limit its own developmental tendencies. Soviet society is the destruction, the negation, of the chief characteristics of capitalist society.

Structural revolutions are always the best indices of the social character of an economic system. The incorporation of the territory of one capitalist country into another capitalist country is not accompanied by any revolution in social structure: the German occupation of France and the occupation of Germany by the Americans, British and French showed this quite clearly.

In contrast, the German occupation of the Western provinces of the U.S.S.R., and later the incorporation of the so-called "people's democracies" into the zone of Soviet influence, involved qualitative structural changes. It is unnecessary to speak of the destruction of capitalism in Eastern Europe; the facts are known to all. Less known are the measures taken by the Nazi occupiers in the U.S.S.R. to reintroduce private ownership of the means of production. The aluminium works at Zaporozhe was seized by the Vereinigte Aluminiumwerke trust. Within the framework of the Berg und Hüttenwerke Ost G.m.b.H., financed by the three biggest German banks, the Flick Konzern took over, jointly with the Reichswerke Hermann Goering, the steel works of the Donets Basin, under the title of Dnjepr Stahl G.m.b.H. The Siegener Maschinenbau A.G. took over the Voroshilov works at Dniepropetrovsk, the Krupp trust grabbed two factories at Mariupol, two at Kramatorskaya and one at Dniepropetrovsk. It was accorded the right to manage these enterprises and draw profit from

* Cf. Karl Marx speaks in Volume III of *Capital* about joint-stock companies which, in practice, involve the expropriation of small and medium capitalists, and adds: "However, this expropriation appears within the capitalist system in a contradictory form, as appropriation of social property by a few". And again: "The capitalist stock companies, as much as the co-operative factories, should be considered as transitional forms from the capitalist mode of production to the associated one, with the only distinction that the antagonism is resolved negatively in the one and positively in the other".[47]

them, with complete ownership promised for after the end of the war.[48] In 1943 Krupp dismantled the entire electric steel works at Mariupol and transported it to Breslau. The I.G. Farben trust organised the Chemie Gesellschaft Ost G.m.b.H. and the Stickstoff Ost A.G. in Russia. In the daily newspaper *Frankfurter Zeitung* we find, within a space of three days in May 1943, reports of the establishment of seven large-scale German private undertakings in the occupied areas of Russia.[49]

The theories according to which the Soviet economy represents an economy of a new type, neither capitalist nor socialist, a "managerial" society (Burnham), a bureaucratic society (L. Laurat), bureaucratic collectivism (Bruno Rizzi, Shachtman, etc.), or a society run by a "new class" (Milovan Djilas) cannot be accepted either. The supporters of these theories rightly deny that the Soviet mode of production is capitalist in character. But they do not grasp that what is non-socialist in the U.S.S.R.—extensive social inequality, bureaucratic privilege, lack of self-determination for the producers, etc.—represents a product of the country's *capitalist* past and *capitalist* environment.

They see these survivals as the rudiments of a future society. They are unable, however, to offer an exact characterisation of this society, to define a particular dynamic for it, beyond uttering platitudes or absurd allegations which are continually being contradicted by events.* They cannot say what mode of production qualitatively different from that of the U.S.S.R. would correspond to the era of transition from capitalism to socialism.

In reality, Soviet economy embodies *contradictory* features, which neither its apologists nor its vulgar critics have been able to bring together into a comprehensive conception.

The apologists point to the absence of private ownership of the means of production, the constant and rapid progress of the productive forces† and of the general level of technical skill and culture of the population; all this does indeed prove that the U.S.S.R. is not a capitalist country. It remains nevertheless mistaken to draw the conclusion that the U.S.S.R. is already a socialist country, although classes

* The noisiest of these allegations was that put forward by Bruno Rizzi and taken up by James Burnham in *The Managerial Revolution*: the Soviet-German alliance was said to be a stable alliance between two social systems of the same kind. The Nazi attack on the U.S.S.R and the extremely clear-cut and savage aspect of a struggle between two different social systems which was assumed by the war between the U.S.S.R. and Germany, showed the complete inanity of this theory.

† A conference of American scholars, interpreting very critically the Soviet statistical data, came to the conclusion that the rate of progress of industrial production in the U.S.S.R. has kept up since the first thrusts of rapid industrialisation, and considerably exceeds the rate of industrialisation of all the other countries, including the U.S.A. in the period after the Civil War.[50]

(the working class and the peasantry) continue to exist, with interests which are antagonistic historically and sometimes even immediately, although social inequality has much increased, and although the level of development of the productive forces still remains below the level reached by the most advanced capitalist country.

The advocates of the "state capitalism" theory show correctly the *bourgeois* character of the phenomena of inequality, of the norms of payment for work that exist in the U.S.S.R. But they generalise falsely when they describe the Soviet mode of production as being likewise capitalist. The advocates of the theory of "bureaucratic collectivism" show clearly the non-capitalist nature of the Soviet mode of production. But they generalise falsely when they deny the basically bourgeois nature of the norms of distribution. In fact, Soviet economy is marked *by the contradictory combination of a non-capitalist mode of production and a still basically bourgeois mode of distribution.** Such a contradictory combination points to an economic system which has already gone beyond capitalism but which has not yet reached socialism, a system which is passing through a *period of transition* between capitalism and socialism, during which, as Lenin already showed, the economy inevitably combines features of the past with features of the future.[52]

The "economic categories" in the U.S.S.R.

It is from such a characterisation of the Soviet economy as a contradictory economy of the period of transition from capitalism to socialism that we must start in order to find an adequate answer to the thorny question, so much debated for years both inside and outside the U.S.S.R., of the survival of the "economic categories": commodity, value, money, price, wages, profit, etc.

In a socialist society the products of human labour have a directly social character and thus have no value.† They are not commodities

* Cf. Engels in *Anti-Dühring*: "Each new mode of production or form of exchange is at first retarded not only by the old forms and the political associations which correspond to these, but also by the old mode of distribution; it can only secure the distribution which is essential to it in the course of a long struggle". Cf. also Marx, in *Critique of the Gotha Programme*: "What we have to deal with here is a communist society, not as it has *developed* on its own foundations, but, on the contrary, just as it emerges from capitalist society . . . Hence, *equal right* here is still in principle—*bourgeois right* . . ."[51]

† Cf. Marx: "Within the co-operative society based on common ownership of the means of production, the producers do not exchange their products; just as little does the labour employed on the products appear here *as the value* of these products . . . since now, in contrast to capitalist society, individual labour no longer exists in an indirect fashion but directly as a component of the total labour."[53] And Engels: "The seizure of the means of production by society puts an end to commodity production . . . From the moment when society enters into possession of the means of production and uses them in direct

but use-values, produced for the satisfaction of human needs. Such a society will not know wages at all, and will know "prices" only for the purpose of social accounting. The existence of the "economic categories" in the U.S.S.R. shows clearly that this country is not yet a socialist society.

But commodity production extends in the history of mankind's economy well beyond the capitalist era. It begins with petty commodity production within a patriarchal or slaveowning economy. It vanishes only with the production of an abundance of use-values in a fully-developed socialist economy. Commodity production cannot be "abolished" artificially. It can only wither away progressively, in proportion as the economy becomes capable of ensuring to each human being the satisfaction of his fundamental needs and as, thereby, distribution ceases to have to be based on exchange, on exactly measured counterpayment.*

So long as production does not ensure such a satisfaction of fundamental human needs, the central economic problem remains that of *sharing scarcity* (in a more or less relative sense) of consumer goods, a form of distribution which must be regulated by objective criteria. Throughout the whole of this period of transition between capitalism

association for production, the labour of each individual, however varied its specifically useful character may be, is immediately and directly social labour."[54]

* Soviet economists have for a long time been discussing the causes of this survival of "commodity categories" in the U.S.S.R., notably during meetings of academicians in 1951, in December 1956 and in June 1958. The view accepted in the Stalin era reduced the origin of the categories to the existence of "two forms of property" in the U.S.S.R. Since then, Ostrovityanov, Gatovsky, Kronrod and others have defended a view which comes close to the one we outline here. Cf., for example, Gatovsky's formulation: "The possibility of going over to direct distribution of goods will exist . . . when society no longer needs to regulate the quantity of labour and of needs."[55] Recently, Charles Bettelheim has offered a new explanation of the survival of commodity categories in the U.S.S.R. He states that this survival is due to an inadequate level of development of the productive forces, which renders the state (the state sector of the economy) unable to control effectively and thoroughly both means of production and products.[56] We agree with him, of course, on the fundamental point: the commodity categories survive in the U.S.S.R. because of the inadequacy of the present level of development of the productive forces. But his reasoning about "effective and thorough control of both means of production and products" seems rather scholastic. Bettelheim means by this that the juridical form does not *completely* correspond to the economic reality, that is, that *part* of the production of the state sector continues to escape from control by the state. He does not seem to realise that the juridical form—which is necessarily abstract—*never* corresponds, in any society, one hundred per cent, mechanically, to economic reality, which is inevitably contradictory; and that, far from increasing, the state's direct control over all products is doomed to decrease in proportion as the development of the productive forces makes possible a gradual approach to abundance and the withering away of commodity production.

and socialism, *exchange* between human labour and the consumer goods produced by this labour governs the sphere of distribution. Exchange implies commodity production. *The shortage of use-values prolongs the life of exchange value.*

The survival—partial or general—of commodity production in the era of transition between capitalism and socialism is a characteristic feature of this era. But this survival normally affects only the consumer goods sector (or at most the agricultural and craft periphery of the capital goods sector). To the extent that society takes over industry, banks, transport and chief centres of distribution, the means of production and exchange which are produced in these nationalised enterprises lose their character as commodities and are no longer anything but use-values. Even if these use-values are formally "sold" by one state enterprise to another, this is a mere matter of accounting and general checking on the execution of the plan, for the economy as a whole and for each economic unit. The difference is expressed even in money form. Consumer goods are bought with banknotes; capital goods circulate purely by means of representative money, a mere accounting device. It is forbidden to buy them for cash, except in the case of small tools.[57]

That is how things are in the U.S.S.R. The capital goods intended for the collective-farm market; the consumer goods not consumed by their producers; the industrial and craft consumer goods not kept back by the state* possess all the outstanding features of commodities. Only their total amount is "planned." Their distribution among the different consumption areas, between town and country, between different strata of consumers, is carried out blindly, according to the laws of the market, "corrected" at most by bureaucratic arbitrariness.[59]† As for capital goods, especially those produced by nationalised industry, they have lost their commodity character, since not only their overall production but also their precise distribution is fixed in advance by the plan.

In fact, capital goods are grouped into three categories, as regards the way they are distributed:

(*a*) Basic goods, 1,600 products in all, which constitute the chief raw materials (steel and its alloys, coal, oil, ferrous and non-ferrous metals, rubber, the chief chemical products, electric power) the principal types of machinery, and motor-driven vehicles. These basic goods

* Notably for its armed forces and for export. Hubbard shows that in 1937 73·9 per cent of industrial consumer goods were intended for the market.[58]

† "The trouble is that our business executives and planners, with few exceptions, are poorly acquainted with the operations of the law of value, do not study them, and are unable to take account of them in their calculations", wrote Stalin. And further on he accused these specialists of showing the arbitrariness of " 'economic' adventurers".[60]

are not sold by enterprises or groups of enterprises but are directly allocated, by the Council of Ministers, among the enterprises which need them, in accordance with quantities laid down by the plan and against purely formal payment in representative money.

(*b*) Goods allocated by percentage quota, namely, the more plentiful and less essential products (wood, glass, matches, electric fans, smoothing irons, etc.) which are shared out by the various ministries, the plan restricting itself to laying down the quota of total production to be allocated by industrial sector or region. So long as these quotas are not exceeded, each factory can acquire these products by buying them from a trading agency of the appropriate ministry.

(*c*) Goods distributed in a decentralised way, which can be brought directly from the producers by the enterprises: agricultural and craft products, certain products of local industry, etc.[61]*

So long as the problem of distribution remains dominated by the relative shortage of consumer goods, money continues to be the most efficient device for carrying out this distribution. It will be so in every society of the transition period, where money, by retaining the possibility of a certain degree of choice on the part of the consumers, constitutes a safeguard—limited but real—against total invasion by regulating bureaucratism. Money likewise remains the simplest device for measuring the efficiency of enterprises by means of comparison between costs of production; it is indeed the most flexible instrument for economic measurement in all spheres.

But the money that survives in the transition period loses a series of fundamental functions which were characteristic of it in capitalist economy. It ceases to be automatically transformable into capital under the given market conditions, since private acquisition of means of production is forbidden (industry) or greatly restricted (agriculture, crafts, trade). Thereby, private purchase of labour power, as a commodity producing surplus-value, disappears, and money ceases to be automatically a source of interest, of income. It ceases to be the initial

* After the reorganisation of industrial management and the creation of the *sovnarkhozy* in 1957, the allocation of raw materials and equipment in three categories was retained. The allocation of goods of the first category (those said to be "put into a special fund") has to be worked out in advance and approved by the Council of Ministers of the Soviet Union. The allocation of goods of the second category is subject to central supervision and has to be approved by Gosplan. The products of these two categories must be "sold" by the Gosplan organs, even if the recipient is in the same *sovnarkhozy* as the "seller".[62]

Some Soviet economists have, however, suddenly insisted that capital goods are also "commodities". This theoretical "discovery" has above all a practical aim: that of demanding more autonomy for plant managers in matters of investment. Cf. Khrushchev's significant linguistic deviation when, addressing the 21st Congress of the CPSU, he spoke again and again of "capital investments" in the U.S.S.R.

and final form of capital, towards which the whole of economic activity is directed. For the realisation of surplus-value, which, in a capitalist régime, is possible only in the form of money, is substituted direct appropriation by the state of the social surplus product, in the form of use-values.* Money becomes capital again only in the elementary process of primitive accumulation in agriculture and petty trade, whether legally or illegally.† State constraint is needed to check this process, which is favoured by the automatism of the economy so long as conditions of shortage of consumer goods prevail.

Prices as a whole continue to fluctuate around value, since calculation in money terms of the average cost of production in each branch of industry is taken as the basis for economic accounting in all fields. But the formation of prices no longer takes place automatically. The law of value, indeed, does not apply in a "pure" way except in petty commodity production. In capitalist society the law of value is refracted through the prism of profit, of the ebb and flow of capital favouring the sectors where the highest rate of profit is obtained, of the equalisation of the rate of profit and the formation of prices of production. In the economy of the transition period the law of value is refracted through the prism of the plan. Prices become devices for planning, for dividing the national income between productive and unproductive consumption, for the allotment of investments between different sectors of the economy.

In Soviet society the selling prices of industrial products are formed by adding to the cost of production a rate of profit and a differential turnover tax, previously laid down by the plan.

"Price 'does not represent the money equivalent of the cost of pro-

* This appropriation is actually accomplished as soon as the capital goods are produced and have arrived at their destination (assuming they have not been stolen on the way, or sold on the black market, or damaged in transit, or uselessly hoarded in a store). The *accumulated* part of the social surplus product is in fact the entire output of capital goods, less the fraction which serves to replace worn-out machinery and to renew stocks of raw material.

However, O. Lange is wrong when he says[63] that accumulation "is carried out automatically, as a sheer result of the allocation of the physical resources" between the two sectors. Besides the risks of theft, damage, etc. mentioned above, and which are not at all negligible under a system of bureaucratic management, a mistaken distribution which hinders the *effective utilisation* of new machinery, etc., in the production process will prevent the realisation of accumulation. Just because capital goods have ceased to be commodities, the "realisation" of the surplus product is their putting to work, their effective consumption.

† Nevertheless, account must be taken of deposits in Savings banks which bring in interest, that is, which permit their owner to appropriate part of the social surplus. As, moreover, the right of inheritance is unlimited, a person who inherited 4 or 500,000 old roubles could live on his interest, receiving more than the average wage.

duction. It is the main instrument for the redistribution of the national income'."[64]

The more or less arbitrary fixing of prices in certain sectors of industry is the essential means used by the Soviet government to determine the rate of investment in these sectors, to encourage or discourage the consumption of the products of these sectors.* What in capitalist economy results *a posteriori* from the interaction of thousands of individual decisions to consume or to invest, results in the U.S.S.R., by and large, from *a priori* decisions by the central planning authorities.[65]

Finally, profits lose completely, at least in the state sector, the role of basic driving force of economic life which they play in capitalist economy. They remain to be sure, a means of interesting the bureaucrats in the realisation of the plan and reducing costs of production. The additional profit obtained by reducing costs of production in comparison with those assumed in the plan is in part put at the disposal of plant managers as the "manager's fund" (or "plant fund"). But this is only a mere question of technique. The same operation could be carried out by way of the distribution of bonuses, or by reductions in selling price consequent on reductions in cost of production. Profit also plays an increasing role as a financial source of accumulation.† But this role is likewise purely a technical one. Without any structural change the Soviet system would be able to abolish the very notion of profit tomorrow, and finance accumulation by a sliding-scale system of turnover taxes on all sectors of industry.

* See, in Chapter 18, section on "the new economic debate in the U.S.S.R." the discussion of the various theories and hypotheses put forward by the Soviet economists in favour of a radical revision of the system of calculating prices.

† Here is the relevant section of the Soviet state budget dealing with the turnover tax and the levy on the profits of state enterprises (in billion roubles):

	Total revenue	*Turnover tax*	*Levy on profits*
1928	8	3·1	0·6
1932	30	17·5	?
1937	109·3	75·9	9·3
1940	180·2	105·9	21·7
1946	325·4	190·9	16·6
1950	422·1	236·1	40·0
1954	571·8	234·3	92·6
1958	672·3	304·5	135·4
1962	843·3	329	239

Theoretically, the increasing importance of the heading "levy on profits" in the financing of the Soviet budget could be regarded as a sign of economic health, taxation of consumption being replaced progressively by the product of the profitability of enterprises as the means of ensuring socialist accumulation. In reality, given the arbitrary nature of prices, the two sources of accumulation do not differ at all; it is merely a matter of the substitution of one financial *technique* for another.

The contradiction between the non-capitalist mode of production and the bourgeois norms of distribution is the basic contradiction of every society transitional between capitalism and socialism.* The Soviet economists are beginning, moreover, to admit this more or less explicitly. Kronrod writes of the "contradictions between the relations of equality which apply in respect of ownership of the means of production and the relations of *de facto* inequality which apply in respect of the results of the use of these means of production in the actual production process".[68] But in Soviet society this inevitable contradiction is aggravated by the existence of bureaucratic privileges, which are justified by the thesis about distribution "in accordance with the quantity and quality of labour contributed by each individual".†

The commodity contains in germ all the contradictions of the capitalist mode of production. Since it is produced for an anonymous market it may turn out to be unsaleable. True, in the era of transition, consumer goods are commodities precisely because of their relative scarcity, their under-production. All-round overproduction is thus out of the question; the state can progressively reduce their prices in proportion as production increases.

But as a result of a faulty distribution, a price momentarily too high, or inferior quality, some commodities may remain unsaleable. Their equivalent in money is not realised, and thenceforth they will have been produced at a dead loss, from the standpoint of society and the state.

Allusions to these "unsaleable stocks" are increasing in the Soviet press: 60 million roubles-worth of unsold stocks in 1952 in the workers' provision stores in Stalino (Ukraine); stocks exceeding by 60 per cent the figure allowed by the plan in the district of Osh, in Kirghizia; 500 million roubles' worth of unforeseen stock in Kazakhstan in 1953; need to cut prices by 25 per cent for a series of consumer goods which would otherwise remain unsold, in 1956; the sudden introduction of hire purchase in 1958; a million unsaleable sewing machines produced by the Podolsk factory down to the end of 1964, etc.[69] At the end of 1961 55 per cent of the stocks in the retail shops of the U.S.S.R., to a total value of 11 billion new roubles, were estimated to be excessive, since they consisted of goods the demand for which had basically been

* It is interesting to note that V. Nemtsov writes, in *Izvestia*, about the "bourgeois right of inheritance which has been retained in the U.S.S.R.". Many Soviet writers protest strongly against the use of the expression "bourgeois norms of distribution" in relation to the system of distribution in the U.S.S.R. But Marx explicitly describes as a survival of "bourgeois right" distribution in proportion to the amount of labour contributed to society. How would he have described distribution which conceals an even greater degree of inequality behind the formula of distribution "in accordance with the quantity and *quality* of labour contributed".?[67]

† See Chapter 18, section on "an apologetic distortion of Marxism".

satisfied. For these goods, the stocks already represented 50 per cent (!) of the value annually sold.[70]

The fact is admitted by Soviet theoreticians. Thus, A. G. Kulikov alleges that "practice has convinced us that . . . when goods remain in store in the distribution network and cannot be sold, the labour congealed in these goods has not been recognised socially".[71]

The fundamental contradictions of Soviet economy

The contradiction between the non-capitalist mode of production and the bourgeois norms of distribution is the fundamental contradiction of every society transitional between capitalism and socialism. Theoretically this contradiction should grow less in proportion as the productive forces develop, as the level of well-being and culture of the population increases, as situations of shortage—freely accepted through choices democratically made by the majority of the working masses—are more and more replaced by free distribution of goods and services in accordance with the principle of the satisfaction of needs.

But this close correspondence between the development of the productive forces and the gradual withering away of the contradiction between mode of production and norms of distribution during the period of transition from capitalism to socialism presupposes above all* a high degree of consensus between the masses and the government, a high level of socialist democracy, active participation by the workers in the management of enterprises and of the economy as a whole, working out of the plan by democratic discussion and debate, and close supervision by the working people of this working-out of the plan, of its application, and of its periodical correction. In short, it requires a state which is a workers' state in the deepest and most democratic meaning of the term.

Now, Lenin remarked already in 1920 that the U.S.S.R. was not simply a workers' state but a workers' state with bureaucratic distortions.[72] For historical reasons related both to the low level of development of the productive forces, the numerical and cultural weakness of the proletariat, the loss of much of the vanguard during the civil war, the international isolation of the revolution, and the extremely heavy burden of privation that the Soviet working class was called upon to bear, the latter began to show less and less interest in direct management of the state and the economy.[73] This management was increasingly carried out by a bureaucratic apparatus, at first through a sort of delegation of powers, later more and more by usurpation. The Bolshevik Party did not understand in good time the seriousness of this

* It also presupposes a rapid extension of the area of the world freed from capitalism, a high level of socialist consciousness and education, a close correspondence between the development of the economic infrastructure and that of all spheres of the superstructure, etc.

problem, despite the many warnings sounded by Lenin and by the Left Opposition.[74] Instead of checking this process of bureaucratisation, and changing direction, it made itself first the accomplice and later even the driving force of the process. The bureaucratic distortion became a degeneration.

The specific contradictions of Soviet economy are thus not confined to the fundamental contradiction of *every* transitional society; they *combine* this fundamental contradiction with the contradictions which arise more especially from bureaucratic control of the state and the economy. The latter can be grouped in three categories: the contradictions resulting from disproportion in development between industry and agriculture, and more generally, between heavy industry and the whole sector (agricultural and industrial) producing consumer goods; the contradictions resulting from the use of material incentives in an economy managed by a bureaucracy, that is, in an economy in which the material interest of the bureaucrats becomes the essential driving force for the fulfilment and overfulfilment of the plan; and the contradictions resulting from the techniques of bureaucratic management itself.

All these contradictions are combined with the *antagonistic coexistence of the plan and the market*, which is inevitable during any period of transition from capitalism and socialism, but with the conflict between them exacerbated by the harm done by bureaucratic control of the economy and the state, which intensifies both the automatic working of the commodity categories and the attempts to stifle them by purely administrative means.

The effects of these contradictions are numerous, but their economic and social weight differs according to the stage that the Soviet economy is passing through.

In the period of Stalin's dictatorship the tasks of construction were essentially *extensive*. It was a matter of creating the infrastructure of a great modern industrial power, essentially by copying foreign enterprises and techniques. Labour was plentiful, and its power of resistance was reduced to the minimum by terror and the atomisation of the masses. Social tension was, indeed, tremendous, but the régime answered it by means of successive waves of large-scale repression. The results were bought at the price of enormous wastage and sacrifices that could easily have been avoided;* but they were no less impressive. Quality was systematically sacrificed to quantity: but the latter

* The fantastically over-ambitious nature of the first Five-Year Plan, and of some sector plans at more recent dates, led to waste on such a scale that a similar rate of growth could well have been achieved at far less economic and human cost, if they had hastened more slowly. Vast miscalculations occurred, resources were wasted on a prodigious scale on enormous "prestige" projects (canals, "transformations of nature", etc.) using much forced labour.[75]

seemed to increase in accordance with an irresistible logic of geometrical progression.

It is true that, already in the Stalin era, agriculture, after the frightful bloodletting of 1930–1934, became stuck more and more hopelessly in the mud of stagnation. It is true that already at that time a marked slowness began to appear in the development of new industries.* It is true too that the rate of growth began to fall off. But it was possible to believe during an entire period that, while the social contradictions arising from this context were becoming more and more explosive, the economic contradictions would not prevent a regular and rapid, if not harmonious, growth of the productive forces.

From the beginning of the 1950's it became necessary to alter one's views. Stalin's successors themselves had to face the fact that urgent reforms were needed to get the Soviet economy going again. These reforms affected first of all agriculture and the standard of living of the working people, and also the abolition of irrational forced labour and of an unbearable labour code. They quickly spread to the organisation of industry and the methods of management and planning themselves.

From then on a fundamental problem of reconversion confronted the Soviet economy: growth, from having been *extensive*, had to become *intensive*. The increasing of production by mere increase in the labour-force lost all meaning from the moment when, on the one hand, reserves of labour-power were exhausted, and, on the other, the equipment newly introduced became more and more costly and more and more productive. The length of the period of immobilisation; the time taken by construction work; techniques for depreciation of installation costs—these became problems far more important than those of "labour discipline". International competition with capitalist economy also necessitated an increasing shift of emphasis to the quality of products, the productivity of labour and the rationalisation of investment, the volume of which moreover necessitated the maintenance of a high rate of growth, even on the purely quantitative plane.†

But the reforms of the Khrushchev and post-Khrushchev periods are essentially reforms *within the framework* of bureaucratic management of the economy and the state; the latter has not been challenged.

* See on this subject writings by Arzumanyan and numerous Eastern European writers.[76]

† "At present enormous material values exist in the economy which drag like useless burdens and which are used neither for production nor for meeting the individual needs of the population. We must mention in this connexion first and foremost the excessive scale of construction projects which remain uncompleted owing to the protraction of detailed parts of the work and the wastage of capital investments. On the building sites and in the plants there is a great deal of equipment which is not set up for operation and which remains unused for long periods."[77]

Being bureaucratic reforms of bureaucracy, their positive results are limited, especially in time. After a few years, their dynamism is exhausted; new dangerous signs of a slowing down in the pace begin to appear. The trouble is that, in general, they tend merely to replace one type of contradiction by another. We must now show the truth of this in a number of specific fields.

Disproportion between industry and agriculture

In no sphere has bureaucratic management shown itself so disastrous over a long period as in that of agriculture. While all the misdeeds of the bureaucracy were unable to prevent a prodigious development of the productive forces in industry, thanks to the advantages of planning, they were combined in agriculture with the disadvantages of a hybrid system of property. The result was a catastrophic fall in production over a long period.

The origin of the disproportion between the development of industry and the decline or stagnation of agriculture lies in the fact that industrialisation was started late, whereas the complete collectivisation of agriculture was undertaken prematurely, before the technical and social foundation existed for such a revolution in the agricultural mode of production. It was precisely the delay in industrialisation that postponed the creation of an adequate technical basis for agrarian collectivisation, and that at the same time favoured the polarisation of social forces in the countryside. The crystallisation of the power of the kulaks became an imminent threat to the survival of the Soviet state and pushed the government on to the road of complete and compulsory collectivisation. It was the same delay in industrialisation that was responsible for its precipitate and spasmodic character.

In the absence of adequate mechanisation and of extensive investment in fertilisers* and infrastructural works (roads, silos, store-houses, garages, stables, dwelling-houses, etc.), complete collectivisation of agricultural holdings produced harmful effects from both the economic and the social standpoint. Output fell, especially output of fodder, meat, milk, etc. The discontented and desperate peasants slaughtered their animals. It was necessary to create a bulky apparatus of collective-farm officialdom which reduced the margin of accumulation of the agricultural enterprises. Added to these effects was the need to extract from agricultural production an important part of the accumulation fund required in order to make possible accelerated industrialisation.

* In 1950 only 6 kg. of fertiliser was used in the U.S.S.R. per hectare of cultivable land, as compared with 23 kg. in Italy, 48 kg. in France, 124 kg. in Britain and Eastern Germany, and 147 kg. in West Germany. In 1955 the figure was 9 kg. in the U.S.S.R., but it had doubled in Italy and increased to 210 in West Germany![78]

The fall in agricultural production was all the more disastrous because, owing to industrialisation, a smaller number of agricultural producers henceforth had to feed an urban population which was greatly increasing. Under Tsarism, 25 million peasant households fed 28 million townspeople; today 17 million collective farmers and state-farm workers have to feed over 100 million townspeople, to whom must be added several million non-producers in the countryside itself.

All these factors together brought about an acute and permanent crisis in Soviet agriculture, the effects of which, aggravated by wartime destruction, are far from having been overcome today. This is clearly shown by the following figures of agricultural production and number of farm animals: [79]

	1913-16	*1928*	*1932*	*1937*	*1946*	*1950*	*1953*	*1955*	*1959*	*1965*
Grain (barn harvest) (million tons)	80	73·4	69·9	96	56·7	84·0	85·0	108	124	120·5
Grain (in the fields)	—	—	—	120·3	66·7	124·5	121·3	—	—	(†)
Sugar beet (million tons)	10·8	10·1	6·6	21·8	21·3	20·7	22·7	30·5	54·1 (in 1958)	77·1 (in 1963)
Unpicked cotton (million tons)	—	0·8	1·27	2·48	—	3·6	3·65	3·91	4·7	5·7
Horned cattle (million head)	58·4	66·8 / 60·1*	38·3	47·0	47·6	58·1	63·0	58·8	70·8	93·4
Of which, cows	28·8	33·2 / 29·3*	22·3	20·9	22·9	24·6	24·3	27·2	33·3	40·1
Pigs (mill. units)	23	27·7 / 22·0*	10·9	20	10·6	22·2	28·5	34	54	59·5
Sheep (mill. units)	96·3	114·6 / 107·0*	47·6	53·8	70	93·6	109·9	103·3	129·6	135·3

In order to interpret these figures correctly it is necessary to take into account the increase in the population, which rose from 159 millions in 1913 and 147 millions in 1926 to 170 millions at the beginning of 1939 and over 200 millions in 1956. It follows that between 1930 and 1955, per head of population, agricultural production (except for technical crops) and the number of farm animals (for pigs this applies only until

* The first figure is for the U.S.S.R. within its present frontiers, the second for the U.S.S.R. within its frontiers previous to 17th September, 1939.

† For the period 1937–1953 we give two figures for the grain harvest. The figure for grain in the fields represents the harvest figure officially given at the time. Naum Jasny, a Russian émigré economist, was the first to draw attention to the fact that this official figure did not represent the actual amount harvested, as previous figures had done, but was an estimate of the *grain standing in the fields* (the "biological yield" and not the "barn yield").[80] Official confirmation was first given to this view in 1944 in an obscure publication of the Soviet government. It was later repeated by Malenkov and Khrushchev.[81] The difference between the "biological yield" and the actual amount harvested varies between 10 and 30 per cent on the average

1953) were *lower than in 1916*, and that for horned cattle and for cows neither the level of 1913 nor that of 1928 has been recovered to this day. The amount of grain available per head of population increased from 503 kg. in 1913 to 528 kg. in 1965—an "increase" of 5 per cent in half a century!

Furthermore, though the area sown to grain crops increased by nearly 40 per cent between 1928 and 1955, production increased by less than 50 per cent which means that the enormous mechanisation carried out had been able to increase output by hardly 10 per cent. The average productivity of agricultural labour thus remains extremely low. In order to produce a quintal of wheat, the collective farmers expended in 1956–1957 *seven times as many hours of labour as the American farmers*, six times as much labour to produce a quintal of sugar beet, and sixteen times as much labour to produce a quintal of pork.[82]

Nevertheless, in proportion as the mechanisation of agriculture is progressing, positive results are appearing, especially in the production of technical crops: cotton production doubled between 1932 and 1937, to increase again by 50 per cent between 1937 and 1950, and by another 50 per cent between 1950 and 1965. The number of tractors available to agriculture rose from 26,700 in 1928 to 148,500 in 1932, 454,000 in 1937, 600,000 in 1950, 844,000 in 1955 and 1·4 million at the end of 1963. At this rate complete mechanisation of agriculture is within the realm of the possible. The amalgamation of collective farms, which reduced the number of co-operative agricultural enterprises from 240,000, before the war, to 95,000 in 1952, expresses in its own way the considerable enlargement of the technical foundation acquired by Soviet agriculture. Since then this process of concentration has continued; only 80,000 collective farms were spoken of in 1958, and so few as 38,800 at the end of 1963.

Like the results of industrialisation, the results of mechanisation must be considered not only in absolute figures but also in relation to the number of inhabitants, and to the cultivated area. From this standpoint, the U.S.S.R. is still low on the list. In 1963 it had one tractor per 130 hectare of cultivated land, as compared with one per 40 in the U.S.A. and one per 22·5 in Britain and West Germany. Per head of population the ratio is as bad: 6 tractors per 1,000 people in the U.S.S.R., as compared with 20 in the U.S.A., 25 in West Germany and 27 in Britain.

These tractors are, moreover, not used very intensively. According to *Pravda* of 19th February, 1950, tractors in the Kursk area were idle 30 per cent of the time, on the average, in the previous few years. They remained ten months out of twelve out in the open air, getting rusty and soon becoming unusable. For thirty years it had occurred to no-one to build simple shelters to protect these tractors from inclement weather.

The losses caused by bad use of tractors are enormous. Khrushchev himself estimated them at a quarter of annual production, lost merely through delay in getting the harvest in.[83]*

Finally, it must be remembered that the presence of tractors does not exhaust the problem of agricultural mechanisation and rationalisation. In 1950 only 18,500 out of the 121,000 collective farms had electricity. In 1954 this number had risen to 21,000 out of 87,100. In 1953, of 94,000 collective farm chairmen only 16,000 had middle or higher qualifications as agronomists.[85] In 1962 60 per cent of these chairmen had these qualifications; but the number of collective farms had in the meantime been considerably reduced.

The mechanisation of agriculture for a long time determined the specific relationship between the socialised sector and the co-operative sector of the economy. Tractors and agricultural machines were not sold to the collective farms after 1928. They remained state property and became the state's chief instrument for planning and regulating agriculture.† The machine and tractor stations lent these means of production to the collective farms in exchange for payment in kind, which increased in proportion to the increase in the yield from their land. *Thus, part of the differential rent, which continues to exist in the U.S.S.R. as in every transitional economy, was taken by the state and subtracted from the accumulation fund of the collective farms,*‡ to be added to the accumulation fund of the state. Here are the differentiated rates of payment to the M.T.S. laid down in 1940, in percentages of the wheat and sunflower crops:

	Crop per hectare, in quintals		
	Up to 5	*From 5 to 10*	*From 10 to 16*
	%	%	%
Steppe zone	20·6	32·7	34·4
Forest zone	11·9	25·4	28·5
Far East	11·1	22·6	26·6[88]

* It should be added that, according to the UNO survey of the economic situation in Europe in 1953,[84] the entire Soviet park of agricultural machines had in that year a total of 14·5 million horse-power, the equivalent in traction-power of less than 20 million horses, whereas since 1913, the U.S.S.R. had lost 23 million horses!

† Volin points out that during the war and the first post-war years appropriation of tractors by the collective farms took place, which led to the decree of 6th March, 1948, forbidding the sale of tractors or spare parts for tractors to the collective farms and obliging the latter to sell their tractors back to the M.T.S.[86]

‡ The indivisible fund of the collective farm consists of its buildings, its electric power stations and small working machines, etc. The value of this fund is said to have doubled between 1940 and 1953. Between the first and the fourth Five-Year Plan, inclusive, 60 billion roubles were, apparently, devoted by the collective farms to increasing this fund.[87] According to the *Statistical Abstract* of 1955, the fund amounted in that year to 87·6 billion roubles, as

In addition to this payment in kind for the use of the machinery lent by the M.T.S., the collective farms had to supply compulsory deliveries at fixed prices. These were at first calculated in proportion to the area sown to each agricultural product. But this system was found to discourage the growing of specialised crops. In 1940 it was replaced by a calculation of compulsory deliveries on a *pro rata* basis related to the total cultivable area of each collective farm. The latter was thus induced to cultivate the maximum area of its land: it was also given an interest in developing specialised crops, for which the quantities to be delivered were less than those of ordinary crops.[89]

Actually, the prices paid by the state for these compulsory deliveries were so low that they came very close to being a simple tax in kind.* Even after these prices had been doubled, trebled or quintupled in 1953–1954 they often remained below the cost of production of the agricultural produce. It was only in 1956 that these prices began to cover, as a rule, the costs of production.

A considerable share of collective farm production, on the average probably a third, thus constituted surplus product appropriated in one way or another by the state. If account is taken of the substantial share of the harvest needed to replace the capital used up in the course of production (stocks of seed and of fodder), hardly a quarter of production would be left for distribution among the collective farmers: [91]

DIVISION OF THE HARVEST OF WHEAT AND LEGUMINOUS PLANTS

	1938 %	*1939-40* %
Compulsory deliveries	15·0	14·3
Payment to M.T.S.	16·0	19·2
Sales to state organs (and trading co-operatives) on the free market	5·1	4·0
Seed and fodder stocks	32·2	32·1
Distributed as income to the peasants	26·9	22·9
Funds for reserves, repayment, credit, etc.	4·8	7·5

The share of the harvest sold on the free market, to state organisations and trading co-operatives, provided the collective farms with the funds

compared with 50 billion in 1950. In 1960 it is reported to have reached 281 billion roubles. According to the collective farms charter, 10 to 15 per cent of their annual money income has to be devoted to the upkeep and extension of this fund, that is, to depreciation of fixed capital and accumulation.

* Khrushchev even revealed that potatoes supplied to the state through compulsory deliveries were paid for in 1952 at the rate of 2·5 to 3 kopecks (0·3 U.S. cents) the kilo, which was less than the cost of transporting them to the procurement centre, a charge which in those days had to be met by the collective farms. Potatoes were thus being produced by the collective farms at a "negative price".[90]

needed for the purchase of fertilisers, building materials, etc., and for meeting the other collective needs of the agricultural co-operative.

The quantity of agricultural produce distributed as income to the members of the collective farms varied a great deal from region to region, and depending on the fertility and extent of the collective farm's land, the output of labour, etc. After 1930 the total amount of produce available for this distribution was divided, within each collective farm, in accordance with a reckoning in *work-days* (8 hours of simple labour counting as one day). In 1938 the equivalent of a workday was:

> less than 3 kg. of wheat for 80·3 per cent of all collective farms; between 3 and 7 kg. of wheat for 16·3 per cent of collective farms; between 7 and 10 kg. of wheat for 1·6 per cent of collective farms; and over 10 kg. of wheat for 1·8 per cent of collective farms, or about 4,300 collective farms.[92] To this was added a small sum of money, which rarely exceeded a few roubles.*

There was thus at that moment a small group of fewer than 10,000 rich collective farms and a group of 40,000 fairly well-off ones, alongside 190,000 poor farms.

After the war the situation remained practically the same, until 1951–1952. The journal *Kommunist* gave as the average payment for a workday in a "good" collective farm in 1951 3 kg. of wheat and 3·15 roubles, and in 1952 2·8 kg. of wheat and 4·8 roubles.[94] Even in 1957 the average payment per workday did not exceed 4 roubles.[95]. Yet in the same period the collective farm workday was already "worth" more than 10 roubles in the cotton plantations of Uzbekistan and Tadzhikistan. K. Orlovsky reported that it was worth even 30 roubles in "his" model collective farm in Mogilev district.[96] It must be concluded that the rate of payment remains less than 3 roubles and even less than 2, in a number of "backward collective farms". This conclusion seems to be confirmed by a Soviet survey of collective farms in the Ryazan area, where the output of "poor" collective farms amounts to only 30 per cent of those of "rich" ones.[97] The official yearly statistical abstract of the U.S.S.R. for 1960 shows that per 100 hectares, 2·5 per cent of the collective farms had a money income of less than 1,000 new roubles, 6·2 per cent had between 1,000 and 2,000, 10·2 per cent between 2 and 3,000, 23·9 per cent between 3 and 5,000, 34·6 per cent between 5 and 10,000, 17·9 per cent between 10 and

* Official Soviet sources give, for 1952, a payment of 1·4 roubles per collective farm workday, and for 1956 3·8 roubles. The total amount of money payments to collective farmers for their workdays was 12·4 billion roubles in 1952, whereas peasants' sales on the free market in the towns brought them between 35 and 40 billion roubles in the same year![93]

20,000, and 4·7 per cent more than 20,000.[98] (The new rouble, introduced on 1st January, 1961, is worth 10 old roubles. Our figures are given in old roubles except where new roubles are mentioned.)

It is clear that the meagre income distributed by the collective farms to their members is not adequate to meet even their simplest needs.* The small private holding which each peasant has, and above all his privately-owned livestock, had to make up for the deficit caused by the huge rate of surplus product in the collective farms. Hubbard and Jasny estimated at over 50 per cent of the total income of the Soviet peasant the share obtained before 1940 from the private sector of his work, however tiny this might be.[99] Finegood put it lower, at 43 per cent.[100] Official sources show, at least for the post-war period, percentages which are much smaller, for example 20 per cent for a very prosperous collective farm in 1950.[101] But these same sources confirm that a large share of the potatoes, other vegetables† and dairy produce, as also of the meat consumed by the peasant household itself, come from the private holding and are not included in the calculation of income. More recently, René Dumont has quoted a variety of sources which estimate the contribution of the private holding (the *dvor*) to the collective farmers' total income at ± 30 per cent[103] in the beginning of the sixties.

In 1957 the production of meat on the smallholdings amounted to 5·9 million tons, as compared with 5·7 million tons in the state farms and collective farms. But of this 5·9 million tons, only 1·7 million was sold. Similarly with milk: the private holdings produced in 1957 29·4 million tons (as compared with 25·3 million tons in the state farms and collective farms), of which only 4·5 million tons were sold.[104]

This dualism in the agricultural mode of production, and the very great importance which the income in kind from his own private holding still has for the peasant, gives rise to serious problems in connexion with the allocation of his labour-time between the collective farm enterprise and the private holding. In fact, there is no shortage of labour, if we consider the very small number of workdays contributed every year by each peasant. But the latter prefers to spend more time working on his own holding to working in the co-operative fields, and these run the risk of being neglected.

* Official figures enable us to show this easily for the last years of the Stalin era. The 20 million peasant households received in 1950 only 34·2 billions in money for their work on the collective farms, that is, 1,710 roubles a year, or less than 150 roubles a month. Even if we estimate the element of payment in kind at more than 50 per cent of total payment received, that gives an average income per household of 300 roubles, which is less than half of the average income of an urban household in that year.

† According to the journal *Voprosy ekonomiki*,[102] the private holdings supplied in 1958 49·8 per cent of the potatoes and 31·3 per cent of the other vegetables produced in the U.S.S.R.

According to the article already quoted from the journal *Sotsialisticheskoye Zemledelye*, in 1938 22·6 per cent of the peasants contributed less than 50 workdays, and 38·3 per cent contributed between 50 and 200 workdays. Nearly 40 per cent of the collective farmers spent less than 100 days a year working in the collective farm fields! This situation became so critical that in 1939 a special decree made obligatory a minimum of workdays to be contributed to the collective farms every year, varying from 60 to 100 days according to region.[105] In 1942 this minimum was increased to 100–150 days, but the measure appears not to have been strictly applied, since the decisions on the "new course" in agriculture taken in September 1954 introduced a prohibitively heavy tax on collective farmers who gave less than 100 days a year to the collective farm. A Soviet source puts the average number of workdays actually contributed in 1958 at 200 for men and 150 for women; and the Communist writer J. Triomphe[106] estimated in 1963 that 40 per cent of all agricultural work done was devoted to the private holdings.

Thus, the contradictions inherent in the hybrid mode of production of agriculture—a combination of private production of use-values, petty commodity production, and co-operative production controlled by the state through measures of fiscal coercion—were exacerbated in the general setting of the contradictions of the Soviet economy. The small quantity of industrial consumer goods that the peasants obtained in exchange for their produce limited their productive effort to the minimum. And the comparative scarcity of agricultural products which ensued created a state of general dissatisfaction among all the consumers. By reacting, through a comparative scarcity of agricultural raw materials, upon industry itself, this also fostered tendencies towards the disorganisation and frustration of planning.

During the last few years before Stalin's death, Soviet agriculture was in a blind alley: World Power Number Two was unable to feed its own population. Between 1950 and 1953 the production of grain and the numbers of horned cattle stagnated utterly, at a level below that of 1928! The number of workdays contributed by the peasants in the collective farms remained less than in 1940.[107] The amount of meat available per head of population was less than in 1913.[108]

Immediately following Stalin's death, first Malenkov and then Khrushchev took steps to change the direction of development. A series of four reforms of Soviet agriculture were carried through, one after another, the effects of which, important at first, were rapidly exhausted after a few years.

The first reform consisted essentially of increases in the prices paid for compulsory deliveries; the money income of the collective farms thus rose from 43 billion roubles in 1952 to 95 billion in 1956 and 135 billion in 1958. It was, however, far from being the case that all these

new prices were, even at the time, sufficient to make production profitable.*

Though this increase in prices made possible a considerable increase in the production of meat, butter and milk for the market (it rose from 5·8 million tons of meat and 13·7 million tons of milk in 1953 to 6·9 million and 23·5 million tons, respectively in 1957), grain production did not notably improve. Khruschev then decided to launch his famous "virgin lands" campaign, which was intended to make grain supply to the towns of the U.S.S.R. largely independent of the collective farms, by rapidly developing state farms in Siberia† But this campaign did not bring the results expected, above all because drought and erosion quickly reduced yields.

The second reform carried further the appeal to the "material interest" of the collective farmers. Compulsory deliveries at low prices were abolished. The M.T.S. were dissolved and the tractors and agricultural machinery sold to the collective farms in 1958. The latter henceforth delivered their crops to the state at profitable prices, which enabled them rapidly to accumulate substantial assets in roubles. The supply of durable consumer goods to the villages continuing to be inadequate, the collective farms were allowed to undertake the building of houses on private initiative, and to set up—through "associations of collective farms"—industrial enterprises for the making of building materials, small implements, and food-industry products (pickles, sausages, cakes, etc.).

Though this second reform gave a fresh impetus to cultivation in 1958–1961, it did not make possible a lasting improvement in grain production after the "virgin lands" had exhausted their potentialities of high yields. Pressure for selling privately-owned livestock to the collective farms, which began to be felt in 1959, had an adverse effect on stockbreeding. Thus, about 1962, there was a dangerous state of stagnation, and even of decline, in agricultural production per head of population; between 1959 and 1962 the amount of meat available rose from 8·9 to 9·2 million tons, an increase of 3 per cent, while population rose by 10 millions (5 per cent). Many poor collective farms fell heavily into debt through buying tractors and agricultural machinery. The rate of utilisation of this machinery even began to fall off. The flight from the countryside was intensified.

It was then that Khrushchev tried a third reform, based on two

* In 1960 the price paid by the state for livestock products was still below the collective farmers' costs of production. For 100 kg of produce, the difference was 14 per cent in the case of milk, 35 per cent for beef on the hoof, 33 per cent for pork, 41 per cent for poultry and 35 per cent for eggs.[109]

† In 1953 the sown area consisted of 132 million hectares on the collective farms and 18·2 million on the state farms; in 1961 these figures stood, respectively, at 110·6 million and 87·3 million.[110]

principles: a large increase in production of chemical fertilisers, and general abolition of grass-meadows in favour of the cultivation of fodder plants. At the same time, encroachments on private holdings and privately-owned livestock increased.

A few years later the evidence showed that this reform had exhausted its effects no less quickly than the previous ones. Its failure was one of the causes of Khrushchev's fall. His successors launched in October 1964 a fourth reform, based on guaranteeing the inviolability of private holdings and privately-owned livestock, a rapid transition to the payment of a regular monthly wage to the collective farmer,* and an all-round and substantial increase in investments in agriculture, both in fertilisers and in machinery, production of which was considerably increased, and also in material means for irrigating and draining vast areas.

Agriculture, after having financed the country's industrialisation for four decades, is now beginning to be subsidised in its turn.

Planned economy and the material incentive of personal interest

The normal vehicle of socialist planning and accumulation is consciousness on the part of the industrial producers that they are defending their own interests, together with their creative initiative. But facts must confirm theory; every increase in productive effort must be immediately reflected in an increase in consumption by the masses. When this driving force is largely absent, because the excessive rate of accumulation imposes excessive sacrifices on the producers, the bureaucracy becomes the regulator and chief director of accumulation. It thereby acquires substantial consumer privileges (in money, housing, luxuries and other scarce consumer goods, etc.).†

Though extremely important in a period when semi-famine and extreme shortage of all articles of prime necessity prevailed, the relative attraction of these privileges declines with the improvements in average living conditions and with the general development of the enterprises and the responsibilities to which they commit the bureaucrats. The fear of purges, the strict correlation between social position and fulfilment of the plan, the increase in income in proportion to the output to the enterprise function as incentives giving the bureaucrats an

* At the beginning of 1966 the average monthly income of a collective farmer was still only 29 new roubles, as compared with the average monthly wage of 54 new roubles received by a worker on a state farm.

† According to official Soviet sources, the number of heads of enterprises and other managerial personnel in the economy (including agriculture) increased from 365,000 in 1926 to 1,751,000 in 1937 and 2,240,000 in 1956; the technical directing staff of industry (engineers and chief engineers) from 225,000 in 1926 to 1,060,000 in 1937 and 2,570,000 in 1956; the technical cadres in agriculture from 45,000 in 1926 to 176,000 in 1937 and 376,000 in 1956; statistical and accountancy staffs from 650,000 in 1926 to 2,161,000 in 1956.[111]

interest in increasing production. But the more their income increases, the less this income can secure them new satisfactions in the sphere of consumption, and the more the bureaucrats become concerned rather with preserving and securing what they have than with acquiring fresh benefits. The personal interest of the bureaucrats, regarded as the essential driving force for fulfilling the plans, comes more and more into conflict with what is needed for a harmonious and rapid advance of the economy.

In order to counteract the tendencies towards irresponsibility shown by individual bureaucrats—theft or waste of state property, which they have at their absolute disposal insofar as they are the unchallenged masters in the enterprises, free from any check by the workers—the Soviet state had to introduce in 1935 the principle of the *individual profitability of enterprises (khozraschet).* By this the incomes of the bureaucrats depend on the fulfilment of the financial plan of the enterprise, which often clashes with the requirements for fulfilling the material plan, with the quality of products, and even with planning itself.

Baykov shows[112] that, in order to fulfil the financial plan, from 1939 onward many branches of industry ceased, by their own decision, to produce certain kinds of products, and concentrated on producing other goods, in spite of the fact that this was in flagrant contradiction with the directives of the plan. In his speech to the 19th Congress of the C.P.S.U. Malenkov pointed out that this fault was a permanent phenomenon in state industry:

"The Kharkov electrical equipment works has allocated for several years now 30 to 40 per cent (!) of its capacity to producing what are called indeterminate articles, that is, articles which are not at all intended by the plan to be produced by a plant like this . . . It has engaged in making window-nails, door handles and other articles of ironmongery."[113]

The journal *Kommunist*[114] stated that in 1952 the cotton textile industry supplied 197 million metres of ordinary fabric and underclothes in excess of what was laid down in the plan, and 183 million metres of satin and higher-quality fabrics (artificial silk, etc.) less than had been planned. *Pravda* of 5th October, 1954 reported that numerous textile and footwear factories were refusing to make children's clothes in sufficient quantity because this line was less "profitable".

Urged on by the state to continually cut down the financial cost of their products, the plant managers, interested in making this effort because of the substantial bonuses associated with such cuts, fulfil their aims by systematically reducing the quality of their products. The Soviet writer S. Turetsky[115] estimates that the cost of rejects and defective articles amounted in heavy industry to "several billion roubles a year", out of a total value produced of about 100 billion (in 1940).

The losses resulting from the despatch of defective products amounted to 5·3 per cent of total costs of production in mechanical engineering and 6·5 per cent in the metal industry, during the first half of 1940. Fifteen years later the annual loss from this cause was estimated at 6 billion roubles. At the 20th Congress of the C.P.S.U. Frol Kozlov estimated that the U.S.S.R. was losing 25 billion roubles a year in unused scrap metal.[116]

Knowing that the fulfilment of the plan depends on "his" enterprise being kept regularly supplied with raw materials, auxiliary products, electrical power, etc., the bureaucrat, faced with the relative scarcity of these goods, tries to safeguard himself by constantly demanding amounts greater than he really needs, thereby in his turn adding to their scarcity.* This phenomenon has been described by David Gullick and Joseph S. Berliner, who both base themselves on interviews with a large number of former factory managers who have defected to the West.[118] The Soviet journal *Planovoye Khozyaistvo* has shown that a number of enterprises put in demands for equipment, automatic machinery, materials, metal, wood, etc., in quantities 20 to 30 per cent greater than their needs and their actual consumption. Another Soviet journal, *Za Ekonomiyu Materialov*, has noted the same tendency to build up considerable reserves in the ministries themselves. In 1955 Bulganin put these reserves of equipment and materials at 13·5 billion roubles. According to Saburov, "the ministries and administrations present excessively inflated demands for investments out of state funds. Thus, in 1956, they asked for an additional allotment of 60 billion *(sic)* roubles, over a third of the total investment programme of 1956."[119]

Indeed, this tendency on the part of the bureaucrats to give themselves a margin of security by constituting "reserves" goes so far that they try to conceal and systematically under-estimate the production capacity of their enterprises. The Soviet writers Alfeyev and A. Korotkov published, in the journal *Planovoye Khozyaistvo*, an article entitled: "For full reporting and utilisation of productive capacities", the title of which is itself already eloquent. In this article the following examples are given: "In the Ministry of the Coal Industry, figures of productive capacity are used in a number of mines which are well below the level of production actually achieved . . . In the Ministry of the Wood and Paper Industry the figures of productive capacity which were used were far below actual production."[120]

* "Whenever factories are held to a rigid programme, they will hoard everything they can—labour, materials, and even finished goods—so as to be able to guarantee delivery to schedule . . . The Chinese delegates made no bones about their own drive against hoarding of materials. They agreed that there was a constant tug-of-war between the central departments, battling with shortages, and the factories, determined to hold as large a stock as possible so as to keep their production from being disorganised."[117]

Pravda Ukrainy of 4th August, 1954 mentions a number of coal mines where actual capacity was utilised only 75 to 80 per cent, or even so little as 50 per cent. *Pravda* of 30th July, 1954 wrote of many steel-works which were not using their entire productive capacity and added: "In each works enormous reserves remain unused".

"The tendency of plant managements to submit plans below capacity, and their failure to produce the right product-mix, are perennial complaints in the Soviet press", writes Joseph S. Berliner, summarising his interviews with émigré Soviet bureaucrats.[121] The Soviet writer Arakelian quotes the case of the Kirov Works, with about fifty machines lying idle, some since 1945 and some even since 1939![122]*

An article in *Izvestia* of 3rd March, 1953 gives another typical instance, that of the Dzherzhinsky locomotive works at Murom. Expensive machines, required two or three years earlier, were still not being used. Altogether, the machinery was idle for 25 to 30 per cent, on the average, of the monthly working period, owing to the bad distribution of work and of raw material. In the A.A. Zhdanov tractor works at Vladimir there were in 1952 57,000 working hours totally lost as a result of the same causes.

Malyshev, at that time head of Soviet heavy industry, stated during the preparatory discussion for the 19th Congress of the C.P.S.U. that the mechanical engineering industry was using only 35 to 40 per cent of its annual capacity, owing to periodical interruptions of production.[125] In 1957 Khrushchev declared that there were over 25,000 milling machines too many in Soviet enterprises.[126] But at the 21st Congress A. Aristov gave the figures of 60,000 milling machines and 15,000 mechanical presses "which lie for years in the stores or else get rusty in the factory yards". This accumulation of unemployed equipment is facilitated by the rule that the depreciation charge of this equipment is not to be included in the cost of production of goods currently produced.[127]

* The bureaucrats have an even more direct interest in reporting a productive capacity lower than that which really exists. This is that the principal bonuses they get increase above all when production overfulfils the plan. The plan figures are themselves based on the known productive capacity of the enterprise. The lower this is, the more will actual production exceed the targets set by the plan, and the bigger will be the bonus received by the bureaucrats.

For the same reason, the technicians are often not much inclined to make changes in technical processes on their own initiative: "After the introduction of technical innovations, the screw of the plan will be tightened still more, and thereby the chance of fulfilling the plan and getting bonuses will be lessened."[123] In order to offset this conservative tendency the Soviet authorities seem to have introduced recently the payment of fees for the use of patents, which are to be registered for the benefit of the individual inventor.[124]

The constant presenting of false reports by the bureaucrats is a part of the same bureaucratic technique of reconciling the requirements of planning with the defence of their private interests.

This entire situation implies the lack of any interest on the part of the bureaucrats in an *overall improvement* in the national economy. The fulfilment of the plan—of certain aspects of the plan—by each enterprise is pursued without regard to the repercussions of the methods used on the economy as a whole. This is why, for 25 years, campaigns "for strict fulfilment of the plan", "for cutting down costs of production", "for greater economy in raw materials", "for fuller use of productive capacity", "for more rational use of reserves", have followed each other with monotonous regularity. Success obtained on one "front" usually makes things worse on another. The translation of a work published in Hungary in 1957 (Janos Kornai, *Overcentralization in Economic Administration*), strikingly confirms this diagnosis. *The Guardian* summarises the situation as follows:

"Specifying plans in great quantitative detail made the plan too rigid, since it would not allow for the changing needs of customers . . . If value figures were used instead, there was an incentive to distort production towards items of high value. Similarly, an attempt to keep a check on efficiency by the use of indices of labour productivity acted as a disincentive to producing goods with a high labour content. Indices of planned cost reduction encouraged the sacrifice of quality and the reduction of variety, and inhibited the introduction of new items of production. As the distortion caused by these indices was made apparent the planners were tempted to introduce further control indices to check the distortion, until there were so many indices that both the planners and the planned were completely baffled as to their significance."[128]

It must be added that, seeking for techniques which will make possible an *overall* achievement of the economic progress planned, and endeavouring to avoid excessive immobilisation of resources (Zasyadko spoke at the 21st Congress of the C.P.S.U. of 179 billion roubles invested in uncompleted construction projects,* and Arzumanyan mentioned the figure of 160 billion old roubles "frozen" at the beginning of 1964, to be compared with a total annual investment fund of less than 300 billion roubles for the same year),[130] the Soviet authorities propose to use as chief yardstick of fulfilment of the plan *profit*, i.e. the difference between receipts from sales and the cost of production, instead of the gross value of production, and to considerably reduce the number of quantitative targets laid down for the enterprises. The rights of managers are at the same time being considerably extended,

* At the January 1961 Plenum of the C.C. of the C.P.S.U., Khrushchev admitted that the famous Bratsk dam, built at enormous cost, still had insufficient consumers for its electrical power output.[129]

both in relation to the central administration and in relation to the workers.

This is the significance of what has been called the Liberman reform, which is bound to bring positive results in the field of consumer goods (better adaptation to customers' tastes), but the effects of which in the field of capital goods are likely to be much more dubious. Application of these reforms to however slight a degree will necessitate, moreover, a complete recasting of the price system,[131] and the charging of an *interest* on invested funds so as to calculate the "return" from different investment projects—calculations which, if they are carried through consistently, involve the risk of introducing elements of "spontaneous orientation" of investment into Soviet planning.[132]

The system of individual profitability of enterprises, combined with that of rigid prices previously laid down by the plan, thus does not solve but rather exacerbates the contradiction between the planned character of the economy and the personal interest of the bureaucracy, considered as chief driving force for fulfilment of the plan. If nevertheless the Soviet economy has achieved great successes, these have been due above all to the superiority of planned development of publicly-owned means of production over every previous mode of production.

The contradictions of bureaucratic management

The contradiction between the planned character of the Soviet economy and the personal interests of the bureaucrats, considered as chief driving force for fulfilment of the plan, is the principal contradiction introduced into the Soviet economy as a result of its specifically bureaucratic form of management.* The effects are combined with two contradictions resulting from this bureaucratic management: the contradiction between the high level of development of the productive forces and the scarcity of consumer goods, on the one hand, and on the other, the contradiction between the needs of integral planning and the harm done by bureaucratic hyper-centralisation.

Bureaucratic management brought about an exaggerated rate of accumulation which involved huge sacrifices by the mass of Soviet producers and consumers. The advance of the productive forces during the first four Five-Year Plans was accompanied by an extreme scarcity of consumer goods—a scarcity which, with the progress of industrialisation, has tended to decline *absolutely*, but also to become still worse *relatively*, because the requirements of millions of producers have increased at the same time. Under these conditions of scarcity of con-

* Oskar Lange writes in this connexion of "bureaucratic degeneration" of the Soviet economy, and points out that the government concerns itself with "concealing the share of the national income going to the bureaucracy".[133]

sumer goods there have inevitably arisen the "parallel market", clandestine production, and a series of economic activities outside the control of the plan. Petty commodity production is continually being reborn in the interstices of planned economy.

So long as the responsibilities of plant managers remain limited, this parallel market does not extend beyond the sphere of consumer goods. With the introduction of the principle of individual profitability of enterprises, however, its extension to the sphere of capital goods is inevitable—so long as this sphere, too, remains dominated by phenomena of relative scarcity of equipment, raw materials, etc. In order to receive bonuses* a given bureaucrat is obliged to attain a definite level of production by a fixed date; he therefore tries to ensure that he possesses the necessary quantity of raw materials, by putting up exaggerated demands to the authorities and by systematically underestimating the productive capacity of his enterprise, as we have already mentioned. But the higher authorities, who have to share out raw materials and equipment which they know to be scarce, themselves work in the opposite direction. What results is a constant tug-of-war, in which plant managers do not hesitate to offer prices higher than those laid down in the plan, in order to get what they need.[134] In spite of the formal instructions forbidding this practice, the higher authorities *closely supervise all the buying and selling transactions that go on between enterprises.*

The bureaucrats tried for years to get rid of this too strict supervision. At last, the 18th conference of the C.P.S.U., held in February 1941, adopted important decisions in this direction.[135] From that moment onward the system of *direct contracts* between enterprises and central administrations (*glavki*) was made general. Negotiation and competition suddenly acquired an overwhelming importance in relation

* These bonuses add up to a substantial amount. For the period 1948-1952 Berliner has compiled the following table:

Bonuses in % of basic wages of manager and chief engineer

	For fulfilment of the plan	*For every % of overfulfilment*
Engineering industry	from 22 to 37	from 2 to 4
Motor vehicles	from 20 to 30	from 2 to 4
Coal mines	100	10
Chemical industry	75	8

A manager in the chemical industry who exceeds the plan figure by 3 per cent thus *doubles* his wages; the difference between fulfilling the plan 98 per cent and 103 per cent means a difference of 50 per cent in income for the manager of a mechanical engineering works.

By a decree of July 1959, the importance of bonuses for the fulfilment and overfulfilment of plan for cutting down costs of production was increased relatively to that of bonuses for fulfilling and overfulfilling the physical volume of production and gross value produced.

to delivery conditions. At the same time, "the enterprises were evading the planned tasks and orders issued to them by their superior *glavki* and were entering into formal deals with each other. In this way they were succeeding in fulfilling and overfulfilling their plans in money terms, while evading the requirements of the plans of distribution."[136]*

For this reason, on 21st April, 1949, the U.S.S.R. Council of Ministers issued a decree introducing the system of a *yearly overall contract* between the *glavki* and other central organs, contracts between enterprises having to be fitted within the framework of this overall contract.† However, with the permission of a ministry, the system of direct contracts between enterprises can be retained alongside the system of yearly overall contracts.[140] Even after Khrushchev's reforms this system was, by and large, retained, and a great deal of raw material and equipment, including spare parts, could be obtained only against an *allocation certificate* (*naryad*).[141]

Finally, under the pressure of a long-sustained campaign waged by the plant managers, their autonomy was increased and the system of direct contracts between "suppliers" and "clients" was gradually re-established, with the industrial reforms introduced by Kosygin (September 1965 plenum of the C.C. of the C.P.S.U.).

Acting all the time under the lash of the relative scarcity of raw materials and equipment which puts fulfilment of the plan in jeopardy,[142] the Soviet bureaucrats are not content with a struggle for influence within the framework of legal "contracts". They carry on a veritable illegal hunt for these coveted goods. Parallel production of and parallel trade in capital goods thus grow up "behind the back" of planned economy.

In his report to the 19th Congress of the C.P.S.U. Malenkov confirmed that such phenomena existed, since he mentioned that some enterprises failed to fulfil their plan because they tried to fulfil it only during overtime periods (*sic*), while working during the day on private orders.

The chief personage on the parallel market in capital goods is the *tolkach* (the "fixer"), the more or less illegal intermediary who, while formally attached to a particular enterprise, travels around the country

* On a number of occasions the Soviet Press has published articles demanding that "the rights of managers be increased".[137] *Izvestia* of 29th June, 1957 raised this question in relation to the problem of direct arrangements between enterprises. An article in *Kommunist*[138] gives the impression that official doctrine nowadays accepts "the greatest possible degree of direct relationship between works which supply and works which buy".

† Countless claims and prosecutions arise from the non-fulfilment of these contracts. Many enterprises become totally immersed in arbitration and court cases.[139]

arranging illegal "deals". On 30th March, 1952 the satirical journal *Krokodil* gave a splendid little caricature of him, together with a short poem in which we were told that he can get anything: iron, bricks, timber, nails . . . The technique employed is almost always *blat*, which means bribing the higher authorities. It is not surprising that in Stalin's day the saying circulated in the U.S.S.R. that "*blat* is stronger than Stalin". The problem of the *tolkach* was widely raised in the preparatory discussion for the 20th Congress of the C.P.S.U. (see *Pravda*, issues of February 1956). Khrushchev's reforms did not solve the problem. An article published on 15th May, 1960 by a Soviet journal estimated that the factories in the *sovnarkhoz* area of Dniepropetrovsk were visited during 1959 by 7,000 (!) *tolkachi*.[143]

The harm done by bureaucratic hyper-centralisation was equally damaging. Because the central ministries strive to regulate the supply problems of the factories down to the smallest details, while at the same time watching jealously over their departmental prerogatives, it can happen that enterprises such as the Kirov turbine and generator works at Kharkov have to send applications to 150 different suppliers, scattered all over the Soviet Union.[144] A city like Leningrad sends every year nearly 100,000 tons of metal products to other towns, while an amount equivalent to half of this is being simultaneously sent from other centres to Leningrad.[145] During the discussions at the 19th Congress of the C.P.S.U. even more ridiculous examples were mentioned:

"The electrical equipment works in Novosibirsk is very well able to produce pig-iron, wrought-iron articles and other kinds of metal products. Nevertheless, this factory cannot accept orders for them. The matter is carried to absurd lengths. According to the planning department of the Ministry, the wages fund made available to the works is calculated exclusively on the basis of the production of constituent parts, excluding all the finished products. The works cannot keep up its production without orders from power stations very far away . . . [in the absence of which] it is obliged to artificially cut down its output."[146]

Departmental egoism has led to the establishment of "thousands" of small building enterprises, small garages, small power stations, operating independently of each other, under deplorable conditions of profitability* (see Khrushchev's speech published in *Pravda* of 8th May, 1957). The setting-up of the *sovnarkhozy* replaced departmental

* According to *Kommunist*, only 6·6 per cent of building enterprises are profitable.[147] Novikov, head of Gosplan, said at the 21st Congress that 100,000 (!) small power stations were employing 800,000 people and producing current which cost between one and two roubles a kwh., whereas the big power stations, producing 90 per cent of current, employed only 200,000 people and their cost of production was only 8 kopecks a kwh.!

egoism by regional egoism.* Enormous wastage results, along with increased administrative costs. The supply, storage and transport offices of the U.S.S.R. ministries alone expended in 1955 16·6 billion roubles in administrative costs, or 17 per cent of all the budgetary investment in industry.[149] This is why at the 23rd Congress of the C.P.S.U. the *sovnarkhozy* were dissolved and the so-called "industrial" ministries reintroduced. The new system of management combines a stricter degree of centralisation at the top with a greater degree of autonomy for individual enterprises—and will inevitably replace regional egoism by the egoism of these individual enterprises.

The contradiction between the non-capitalist mode of production and the bourgeois norms of distribution is the fundamental contradiction of the Soviet economy, as of every economy of the transition era. But owing to the bureaucratic management of this economy, the contradiction has been carried to extremes and given a sharply antagonistic character. It has developed into a contradiction between the use-value character of capital goods and the exchange-value character of consumer goods, and into a contradiction between the purely accounting role of money in the sphere of capital goods and the role of real equivalent for commodities which money retains in the sphere of consumer goods. The principle of individual profitability of enterprises reintroduces money as a real means of payment in the capital goods sphere. Thereby, a tendency for commodity production and commodity circulation to reappear in the capital goods sphere makes itself felt, with all that this implies—a tendency for planning itself to be disorganised.

Bureaucratic management and workers' conditions

Under conditions of bureaucratic management of the economy, planning has been carried through in the Soviet Union with a rate of accumulation such that, taking into account the enormous amount of waste involved in this form of management, the standard of living of the producers was at first not raised but considerably lowered. Under these conditions, coercion, both political and economic (reduction of the basic minimum wage below subsistence level), became the chief instrument used by the administration to force the working class to increase productivity. The bureaucratic struggle for output led to a continual reinforcement of social inequality and the establishment of an increasingly strict labour code.

The difference in income between the category of unskilled workers with the lowest wages (sweepers, porters, night-watchmen, etc.) and

* E.g., during the first nine months of 1960, the metallurgical enterprises of the Ukraine supplied their Ukrainian customers with 132,000 tons of metal and 21,000 tons of steel tubes over and above the requirements of the plan, whereas their deliveries to the other republics fell short of the plan in respect of 82,000 tons of rolled iron and 18,000 steel tubes.[148]

high-level engineers was as one to twenty in 1935.[150] In 1951 a delegation of Belgian trade unionists visiting the U.S.S.R. found similar differences: a sweeper with a gross monthly wage of 300 roubles, a charge-hand in a blast furnace with 3,000 roubles, and an engineer with 5,000 roubles.[151] The British delegation at the Moscow economic conference of April 1952, led by persons very sympathetic to the Soviet government, reported differences a little less extreme as regards gross basic wages: 300 roubles a month for the sweeper, 700 to 800 for a lorry-driver, 2,500 for a technical section head in a ministry. Official Soviet sources show for 1958–1959 a range of monthly basic wages from 342 roubles for a labourer to 2,800 roubles for a manager in the chemical industry—of course, without taking bonuses into account![152] However, the higher one goes in the bureaucratic hierarchy, the more do bonuses constitute an important addition to one's wages. The same reports of the British delegation at the Moscow economic conference of April 1952 show that the *total* gross monthly income of the head of a large enterprise in Moscow comes to 7,000 to 8,000 roubles.[153]

Among the workers in the strict sense of the word very considerable differences of income have been introduced, with consequences that can be imagined as regards the internal cohesion of the working class. Maurice Dobb's claim[154] that the spread between the lowest and highest wage-levels for workers is as one to four is contradicted in his own book: he there mentions, on pages 92–94, that in 1936 the lowest wages were 110 roubles a month, while non-Stakhanovite skilled workers earned 500 roubles and Stakhanovites sometimes earned as much in a week as previously in a month. The journal *Voprosy Ekonomiki*[155] reported in 1959 that the wages of skilled workers were eight times those of unskilled men.

This extreme differentiation of workers' incomes pushed the basic rates below subsistence level and compelled married women to go out to work in order to obtain the simplest means of life. All through the Stalin era it continued to be the chief method used to stimulate increased output.

Piece-work was made general.* Work-norms were progressively raised. Wage-rates rose much less than productivity, when the latter increased.[157] Struggle for the intensification of labour often took precedence over struggle for increasing productivity through rationalisation of technical methods and organisation of labour.[158] Nevertheless, the intensity of physical effort usually remained below the level in the advanced capitalist countries. While Stakhanovism did indeed increase

* The percentage of all wage-earners in industry paid on a piece-work basis rose from 57·5 per cent in 1928 to 76·1 per cent in 1936 and 77 per cent in 1953. Since then, as a result of the post-Stalin reforms, it has been on the decline—72 per cent in 1956, 60 per cent in 1961.[156]

the productivity of labour, it achieved this result by intensifying the stratification of the working class. Stakhanov himself increased his output of coal because he worked only with the pick, thus obliging a number of his fellow-workers to do nothing but shovel the coal away: *

"The main contribution made by Stakhanov workers lay in the clearly perceived distinction between the basic process and the accessory and complementary operations; this allowed them to release the highly skilled worker from the necessity of performing functions which would be carried out by less skilled men."[159]

It is clear, however, that thanks to the copying of the most advanced machinery and working methods of the capitalist countries, the productivity of labour made huge progress right from the start of Soviet planning, as is shown by the following figures:

	Annual production of cast iron per worker employed (in tons)		
	1913	*1929*	*1937*
Russia	205	240	756
Britain	356	366	513
U.S.A.	811	1,729	1,620
Germany	—	—	612

	Annual production of coal, per miner (in tons)	
	1929	*1937*
Russia	179	370
France	—	195
U.S.A.	844	730
Germany	325	435[161]

The American economist Walter Galenson came to the conclusion that, already before the war, productivity in Soviet industry was on the point of catching up with that of British industry and was about 40 per cent of American. For 1960, Abram Bergson estimated the productivity of labour and of invested "capital" in the U.S.S.R., per unit, at 54·9 per cent of the figure for the U.S.A.[162]

The crudest of methods were employed to impose on the worker freshly arrived from the village his apprenticeship to "socialist labour discipline". "In 1933 the All-Union Central Council of Trade-Unions . . . declared as inadmissible the confirmation by the R.K.K. (Rates and Conflicts Commission in a factory) of norms and rates introduced by the management on the one-man management principle."[163] From

* This is admitted in the new *History of the Communist Party of the Soviet Union*, which states that Stakhanovism implied a "proper division of labour in production, the release (*sic*) of skilled workers from secondary or preparatory work . . ."[160]

then on there were no more genuine collective agreements or negotiations on questions of work-norms and wages, which were henceforth to be settled unilaterally from above.

In 1935 occurred the last public conflict between the trade-union leadership and the administration of a large enterprise (the *Krasny Profintern* locomotive and railway-carriage works near Bryansk) over the unilateral decisions of a management. Despite the fact that the trade unions had the law on their side, they were strongly censured by the C.C. of the C.P.S.U.[164] In fact, though the Soviet workers possess, on paper, many organs and authorities for safeguarding them against abuse of power by bureaucrats, special disciplinary codes eliminate these possibilities of defence in a number of key sectors of industry.[165]*

The Soviet labour code was from that time on undoubtedly the strictest in the world. It was openly coercive in tendency, especially after the decrees and regulations introduced in 1938–1941 and retained after the end of the war: [167] the laws and decrees of 20th December, 1938, on the introduction of the labour passport; of 28th December, 1938, on penalties for lateness in coming to work and on the abolition of social security benefits for workers "guilty" of such "offences";† of 26th June, 1940, on moving from job to job and on absenteeism, punished by imprisonment if exceeding twenty minutes (!); of 18th January, 1941, on discipline in workplaces, etc.[168] The decree of 26th June, 1940 forbade workers to change their place of work, except where compelled to do so, under conditions provided for by the decree.[169]

According to a decision of the Supreme Court of the Soviet Union, refusal to work overtime when ordered by the management of a factory, or even refusal to submit to an order to work on a legal holiday, was assimilated to absenteeism and penalised by wage-reductions or terms of imprisonment—although such orders are illegal under Soviet law! Although this decision was given in 1941, it was thenceforth embodied in current regulations.[170]

* Such a code exists, for instance, for the machine-tool industry.[166]

† It should be mentioned that sickness benefit is double for trade-union members what it is for non-members. For trade-union members it varies according to the period of employment in the same enterprise, in the following proportions:

		in % of wages	
Period of employment	*1938*	*1948*	*1955*
Up to 6 months	0	0	0
From 6 months to 3 years	50-60	50	50
From 3 to 5 years	80	60	60
From 5 to 6 years	80	80	70
From 6 to 8 years	100	80	70
From 8 to 12 years	100	100	80, etc.

The brutality and arbitrariness of bureaucratic management, inevitable under a system of distribution based on substantial privileges amid a still acute scarcity of articles of prime necessity, led to an exceptional degree of social tension. From this resulted the terrorism employed by the state towards its citizens, the system of forced labour camps,* the important role played by the political police in all spheres of social life.

Having deliberately chosen to base themselves on the interests of privileged minorities rather than on those of the mass of the workers, in order to give the necessary impetus to industrialisation, the Soviet leaders created a highly stratified society. According to official statistics, the percentage of workers among the members of the Supreme Soviet declined from 45 in 1937 to 42 in 1946 and 35 in 1950. In the Moscow Soviet it stood at 29 per cent in 1953.[172] In the Soviet of the Union only 10 per cent of the delegates were workers in 1950, 80 per cent being officials, whether of the state, the party or the armed forces.

At the 20th Congress of the C.P.S.U. fewer than 20 per cent of the delegates were "directly employed in industry and transport". Even this figure was 2·7 times as big as at the 19th Congress![173] The abolition of free secondary and higher education in 1940 markedly contributed to this shrinkage. Bienstock and Schwartz point out that, already before this, the percentage of students who were workers or children of workers had declined from 46·6 per cent in 1931 to 33·9 per cent in 1938, though the proportion of workers in the occupied population had notably increased.[174]

Innumerable pieces of evidence from Soviet sources bear witness to the fact that the bureaucracy has become a caste with a clear awareness of its special interests. References are constantly met to managers who talk about "their" factories and "their" machines (see e.g. *Literaturnaya Gazeta* of 27th November, 1951, and the play *Moscow Character*, by Anatol Safronov, published in *Oktyabr* for January 1949. See also the caricature in *Krokodil* No. 23, 1957). *Pravda* of 5th January, 1950 wrote of "fear and intimidation" as the basis of relations between workers and management. "Labour legislation is trampled on by the management", wrote *Trud* of 2nd February, 1957, about the tractor and motor vehicle industry. The same formulation was used in the same paper, 8th September, 1953, with a more general application. "There are still a crowd (!) of business executives who trample insolently on the rights of Soviet citizens."

Bureaucrats "refuse to accept any position but that of manager". They bring up their children as "gilded youth" who receive 1,000

* Naum Jasny[171] estimated, on the basis of Soviet secret documents, that the number of forced labourers was 3·5 million in 1941, and their output 1·2 per cent of Soviet industrial production. Immediately after the war this figure was much higher.

roubles pocket money a month—more than the average worker's wage. Their "service cars" take them to their *dachas* and on holiday. Their *dachas* cost hundreds of thousands of roubles, constitute a real "capital investment", and enable their heirs to "live on unearned income" if they sell them "at a profit". The writer of the article we have just been quoting lists as follows the owners of these *dachas*:

> "Writers, painters, actors, scientists and other persons to whom the government has given priority . . . Plant managers, leading officials of co-operatives, public restaurants, building organisations and municipal services . . . private lawyers."[175]

The system of bureaucratic management and brutal subordination of the workers to the bureaucracy means a monstrous wastage of the social surplus, even from the purely economic standpoint.* According to recent statistics, one-third of the wage-earners in the U.S.S.R. are office workers. The existence of this huge mass of bureaucrats both reduces the consumption fund of the producers and also diverts a large share of the social surplus into unproductive consumption.

The disproportion between the development of light industry and that of heavy industry, which underlies the bureaucratic form of management, has become a deep-going weakness in the economic system. Its repercussions on the development of heavy industry itself—especially through the holding back of productivity and the creative effort of the producers which it implies—are becoming bigger and bigger.

But in proportion as the productive forces develop, the general level of technical skill and culture of the producers grows, and the relative weight of the working class in the population as a whole increases, the arbitrariness and tyranny of the bureaucracy weighs more and more unbearably upon the mass of the workers. For a new leap forward by the planned economy there are needed more freedom, more initiative, less regulation from above, more spontaneous activity by the mass of

* The Soviet journals *Voprosy Ekonomiki* and *Industria* (organ of heavy industry) compared at the beginning of the war the number of workers in a Soviet and an American enterprise of the same size. The result was alarming. In the Kemerovo power station, which has the same potential and the same method of production as that of South Amboy in the U.S.A., there were 480 workers, compared with only 51 in the American power station. In a coal mine forming part of the Kizelugol (Ural) trust, and which produced half the coal produced by a comparable mine in Pennsylvania (Pittsburg Coal Company), there were twice as many miners, three times as many surface workers, eight times as many office workers, and eleven times as many managerial and supervisory staff! According to another Soviet journal, *Sotsialisticheskoye Zemledelie*, there were in the *kolkhozy* at least 1·5 million accountants, supervisors, messengers, etc., too many.[176] Khrushchev boasted in 1957 that he had cut down bureaucratic staff by 900,000 during the previous three years.[177] That did not prevent him from denouncing at the beginning of 1961 enormous abuses and embezzlements committed by the bureaucracy in agriculture.

producers. But the Stalin régime denied these liberties, to a large extent, even to the bureaucracy itself. Thus, from 1950 onward, conditions were ripening for the reforms of the Khrushchev era.

In order to increase industrial productivity and to remove one of the essential causes of popular discontent, the forced labour camps were largely abolished and the labour code substantially moderated. The punishments for lateness and absence were abolished. Certain rights were once more given to the trade unions in relation to control of dismissals—caused by the advance of automation—work-norms, wage-rates, etc. Social inequality was slightly reduced by raising of the lowest wages and reintroducing free secondary and higher education. At the same time a certain amount of so-called frictional unemployment once more made its appearance.

Finally, the considerable increase in the production of consumer durables, and an immense effort in the field of house building, tended to reduce somewhat the disproportion between the high level of development of the productive forces and the low standard of living of the people. Real consumption per head of population increased by 66 per cent between 1950 and 1958, a year in which it reached a level nearly double that of 1937 and of 1928 and three times that of 1944.[178] But while the sixth Five-Year Plan could not be fulfilled* the Seven-Year Plan which replaced it was not fulfilled either, in the field of consumer goods. The increase in the standard of living slowed down—to stop altogether for a time in 1962, when the rate of growth of the economy also fell. Thus ended the Khrushchev era, and new reforms introduced in 1964–1966 have the purpose of stimulating once more this rate of growth during the eighth five-year period.

* Here is a comparative table of targets laid down by this plan for 1960 and production actually achieved:

	Sixth Five-Year Plan target for 1960	*Actual production in 1960*
Coal (millions of tons)	593	513
Petrol	135	147·9
Steel	68·3	65·3
Cement	55	45·5
Electric power (billion kwh.)	320	292·3
Cotton goods (billion metres)	7·27	6·39
Shoes (million pairs)	455	419·3

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CHAPTER SIXTEEN

THE ECONOMY OF THE TRANSITION PERIOD

The third industrial revolution

WITH the nineteen-forties appeared the warning signs of a third industrial revolution. The first industrial revolution had been based on the steam engine, the second on the electric motor and the internal combustion engine. The third industrial revolution is based on the release of nuclear energy and the use of electronic machinery.

The productive employment of atomic power is the first answer human ingenuity has discovered to the problem, which some regard as an agonising one, of the loss of world power resources; the second and doubtless final answer will be the employment of thermo-nuclear and solar energy.

Already now, atomic power could cut the costs of industrialising certain under-developed areas (Latin America, large parts of India or China) where coal is scarce or hard to transport, and where hydro-electric power is more expensive than atomic power.[1]

Monopoly capitalism severely hindered for over a decade the full flowering of the third industrial revolution. It is significant that the first steps towards the building of atomic power stations integrated into the electricity distribution grid were made not in the U.S.A., though it possesses more information in the atomic field than any other country, but in the U.S.S.R. and, especially, in Britain. Considerations of self-interest on the part of the great electrical plants and of the oil trusts, both of them controlled by the most powerful finance groups in the U.S.A. (the Bell system, linked with the Morgan group, and the Rockefeller group) stood in the way of a rapid development of atomic power stations. Nevertheless, owing in part to international competition, this obstacle eventually collapsed. The third industrial revolution is under way.[2]

Semi-automatic production processes had already been introduced in the 1930s, as the final culmination of assembly-line methods. After five years of research and experiment, costing 8 million dollars, the A.O. Smith Company of Milwaukee succeeded in building a series of machines which produced motor-car chassis at the rate of 7,200 a day, by taking the metal sheets and transforming them into chassis by way of 522 different operations. The 200 or so workers employed in this work carried out what were essentially functions of supervision

and checking.[3] These examples were repeated in a number of enterprises in the U.S.A., the U.S.S.R., Britain, and, later, Germany.

In order to advance from semi-automatic production to automation pure and simple, it is necessary to eliminate manual work at the beginning and at the end of the assembly line, in the starting and stopping of the machinery, in the checking of quality and quantity of production, and in the overall supervision needed. These tasks are taken over by electronic apparatus.[4] There are already many different applications of this technique, and the number increases every year. We may mention the production of tyres and of steel tubes for oilfields, and the mechanised manufacture of glass and paper, from which human labour has in some cases been completely eliminated. Then there is the factory where four(!) supervisors are the only human beings seeing to the production of gramophone records by sixteen machines, and the shell factory at Rockford, Ill., where no human hand touches the product, from the initial introduction of blocks of steel right through to the packing of the shells.[5] The automatic ball-bearings factory in Moscow can be compared to these automatised enterprises. The most remarkable development in this field has been electrical power stations and oil refineries operated by remote control and functioning without any workers at all on the spot.[6]

Present-day technique has thus found a "final" answer to the oldest of objections to a socialist economy: "Who, under socialism, will do the hard, unpleasant and unhealthy types of work?" Today the answer is clear: machines will perform all these tasks, by themselves. Ten years ago, Professor Wiener already showed that once prototypes of control and supervision machines had been successfully constructed, any machine based on the same principle could be constructed, on a declining scale of costs, to the point at which making them would be found profitable not merely from the social standpoint but also from that of economics.[7]

But while the third industrial revolution is creating a tremendous potential for releasing mankind from the burden, drudgery and boredom of mechanical labour which is unworthy of him, it involves at the same time some immediate threats to the survival of the human race.

The first and second industrial revolutions were able to develop completely within the framework of the capitalist mode of production, even though at terrible cost and excessive sacrifice for the people who lived through them. The third industrial revolution is breaking through the framework of private property. In every country, it has been possible to develop atomic power only in public laboratories and enterprises. Its transfer pure-and-simple into the private sector would involve the risk that mankind might be at the mercy of a madman with the power to blow up entire countries. Nuclear technique is the

first modern technique for which advanced forms of public control are indispensable, not only for the sake of profitability, health or justice, but in order to safeguard the very survival of mankind. Even in the hands of capitalist states, this technique is a threat to the existence of mankind, in so far as it implies an arms race and the risk of atomic war.

Furthermore, automation entails such a development of the productivity of labour* that only a complete upheaval in the economic system (a radical reduction in prices, tending towards zero, and in working hours, etc.) can in the long run prevent it from being a constant source of disturbance. The number of workers engaged in production is falling both relatively, and, sometimes, absolutely. From 1953 to March 1960, industrial production increased in the U.S.A. by over 22 per cent, but industrial employment fell by 11 per cent. Between 1947 and 1952, production in the electronics industry increased by 275 per cent, whereas employment in this industry grew by only 40 per cent.[9] In France, between 1953 and October 1961 the number of workers employed in industry increased by 4 per cent only, while industrial production increased by 89 per cent.[10]

Moreover, the third industrial revolution substitutes machinery for mental work, to the same extent as the first substituted it for manual work. Office workers, accountants, checkers are being replaced in thousands, in the banks, the insurance companies and the offices of the big factories, by electronic computers.†

Paradoxically, the introduction of automation on a private basis leads to higher prices, under-employment and the diversion of an increasing number of workers into unproductive jobs. Technocrats even envisage the creation of an economic system from which men, these "difficult and tricky things to play around with", will be completely eliminated,[12] and will be fed free of charge, like the proletariat of ancient times, by the new masters of this monstrous form of society.

The third industrial revolution can thus lead either to plenty or to the destruction of freedom, civilisation and humanity. In order to avoid the worst, the use of automation must be subjected to conscious control by men. The gap between the triumph of the natural sciences and

* According to Henri Jannes, engineer in chief of France's telecommunications, the productivity of a workshop is multiplied by a factor somewhere between 15 and 20 when it goes over from ordinary machinery to automatic, and at the level of the entire factory, the increase is of the order of 500 per cent.[8]

† "Even the layout of the large office is coming more and more to resemble that of the factory, with straight-line flow of work and in some cases assembly belts for moving paper work from point to point. Each worker does a fragment of the complete operation. The repetitive task of a comptometer operator, for example, depends upon the repetitive tasks of file clerks, stenographers, accountants, and messengers before and after her task is performed."[11]

the abandonment of human affairs to the "automatism of the market", or the egoism of the property-owners, must be overcome. If they are not to be transformed into forces of universal destruction, the productive forces released by the third industrial revolution must be tamed, made tractable, civilised, by means of *a world plan of economic development*. They must bring about the conscious management of human affairs, or, in other words, a socialist society.* The latter is helped, moreover, by certain aspects of modern technique, as electronic computers enormously facilitate the work of planning.

Need for a transition period

Socialist economy means an economy based on the satisfaction of needs and not on the search for profit. If the capitalist mode of production were to be abolished on the world scale it would be possible to go over at once, without any transition other than that required by political events,† to the organisation of an economy in which commodity production is abolished and which adapts men's productive efforts to the satisfaction of current needs. The only condition for such a rapid and far-reaching transformation would be *restriction of needs to the most elementary ones*: men would have to be content with eating just enough to appease their hunger, dressing quietly, living in a rudimentary type of dwelling, sending their children to schools of a quite elementary kind, and enjoying only a restricted health service.

The productive forces at mankind's disposal today make it possible to satisfy these needs without any transitional phase of accumulation or further industrial progress. Existing productive forces would, of course, have to be redistributed on a colossal scale, with conversion of the motor-car industry into an industry producing tractors and agricultural machinery, direction of the chemical industry exclusively towards the production of fertilisers, articles of domestic need and pharmaceutical products, concentration of scientific research on prob-

* "The answer [to the threat of automation], of course, is to have a society based on human values other than buying or selling. To arrive at this society, we need a good deal of planning . . .", writes Norman Wiener.[13]

† The period in which society is making up for the "incidental expenses" of the transition from capitalism to socialism, the consequences of the destruction and disorganisation which are momentarily entailed by any social revolution, may be called the "frictional transition period". In *The Economy of the Transition Period*, N. Bukharin devotes an interesting chapter to this problem.[14] Unlike this "frictional transition period", which presents only problems introduced from outside into the economic mechanism, the transition period in the strict sense, which is dealt with later, presents intrinsic economic problems. In the former case it is a matter of getting back from contracted reproduction to simple reproduction, in the second a matter of advancing from expanded reproduction with a moderate growth-rate to expanded reproduction with a higher growth-rate.

lems of feeding, clothing, housing and health, and devotion of the bulk of world production to the under-developed countries.

It may be denied that existing productive forces are adequate to meet even the most elementary needs of mankind, in food, housing and health. This objection, however, will not stand up. The proportion of the world's chemical industry which is at present devoted to producing fertilisers and pharmaceutical products is so small that the amount produced could easily be increased threefold, fourfold or fivefold without any need for a period in which productive capacity was increased. As for food, the table drawn up in 1944 by R. Salter, one of the world's leading specialists on this question, estimates maximum potential production as follows, in millions of metric tons:

	Pre-war production	*World needs in 1960, according to the physiological optimum*	*Production attainable*	
			from present cropland	*ditto plus 1,300 million new acres*
Grain	300·4	363·5	360	753
Roots and tubers	153·2	194·5	230	535·5
Sugar	30	33·6	34·5	178·1
Fruit and vegetables	156·3	411	211	470
Fats and oils	15·2	20·4	18	70·9
Meat	65·6	95·8	78·7	968
Milk	150·2	300	180·2	323·2[15]

It should further be noted that the huge increase in agricultural productivity since 1947 makes necessary an upward revision of the third and fourth columns, involving an increase of 20, 30 or even 50 per cent in the figures, depending on the particular category of products.*

But such an "immediate" introduction of an economy based on distribution according to need, taking into account only the "frictional transition period", would come up against two insuperable obstacles.

First, as regards a considerable part of mankind, needs at present satisfied are very much in excess of these elementary needs. The

* Here are a few pointers which support this optimistic diagnosis. Of 350 million argriculturalists in the world, 250 million still work with wooden ploughs. For the 100 million more advanced peasants there are only 10 million tractors. Conversion of the motor-car industry to tractor production would make it possible to produce more than 10 million tractors *a year*. Furthermore, Professor Baade observes that world consumption of fertilisers amounts to only 10 per cent of the amount needed for optimum exploitation of the land at present under cultivation throughout the world, taking into account the geological and climatic conditions in each country. This would necessitate an annual production of 60 million tons of potash and nitrate fertilisers.[16] Present world productive capacity comes to only 15 to 20 per cent of this figure, but a reconversion of the chemical industry would enable it quickly to come up to the level of needs.

majority of the inhabitants of the industrially advanced countries are not at all content to eat, drink and dress soberly, to be housed more or less adequately, to teach their children to read and write, and to look after their health on a first-aid basis. The world-wide expansion of the production and circulation of goods, over several centuries, has widened their horizons beyond the narrow limits of their birthplace or even their own country. It has brought about a universalising of needs which is merely a first awareness of the unlimited possibilities of free human development. They want to decorate their houses, change the fashion of their clothes, free themselves from heavy housework (heating, washing, etc.), amuse themselves, travel, read, study, protect themselves more and more securely against illness, increase their expectation of life, educate their children better and better.

The satisfaction of these basically healthy needs—to which commodity-producing industry has, it is true, added needs which are artificial, or artificially inflated—is to some degree guaranteed in the most advanced capitalist countries. Abolishing root and branch the sectors of industry which make it possible to satisfy these non-elementary needs would mean at once causing a fall in the standard of living of a large section of the inhabitants of the industrialised countries. It would mean a sort of "socialism of poverty" in which rationing by ration-card and the restricted variety of products available would replace rationing by the purse. Instead of making possible a universal development of human potentialities, a "socialism" like this would produce a man even more stunted and less satisfied than the average inhabitant of the advanced capitalist countries of today.

Again, the inhabitants of the under-developed countries have themselves become aware of the enormous possibilities of present-day technique, thanks to the "imitation and demonstration effect" elucidated by Duesenberry.[17] They fiercely desire to achieve the same level of civilisation and comfort as the people possess in the advanced countries. They are no readier than the inhabitants of the industrially advanced countries to accept an ascetic socialism in which rationing takes the place of plenty.

But present productive forces are quite inadequate to provide the whole of mankind with up-to-date comfort. According to a League of Nations publication, the annual exports of finished industrial products in 1926–1929 would have had to be multiplied *by sixteen*, or the total amount of world trade in that period *trebled*, in order to put at the disposal of the under-developed countries merely *half* of the amount of finished industrial goods per head of population which was enjoyed by the inhabitants of the industrialised countries.[18] Twenty-five years later, a United Nations publication confirmed this estimate.[19]

A fresh powerful expansion of the productive forces is thus indispensable in order to ensure an abundance of industrial goods for all

the world's inhabitants. This expansion undoubtedly requires a doubling, or even a trebling, of present-day world industrial production. *It implies the need for a period of transition between capitalism and socialism, a period of socialist accumulation.* During this period, on the basis of socialisation of the chief means of production and exchange, and of world-wide economic planning, a degree of development of the productive forces (both mechanical and human, the latter implying a gigantic educational drive) can be attained which will make possible an economy distributing its goods and services in such a way as to cover all the needs of the people involved in it.

Finally, the present level of civilisation and comfort of the industrialised capitalist countries, even though it greatly exceeds the wretched level of the under-developed countries, is far from ideal. Though many phenomena of waste and useless luxury are to be found in it, and though as regards food and clothing ideal physiological norms are being approached in the richest countries,* nevertheless, town-planning, housing, private and public transport, secondary and higher education, health services (and especially preventive medicine), scientific research, artistic development, the organisation of popular tourism, the circulation of books and of ideas in general, all suffer from under-development and crying inadequacies.

To give only a few examples:

In 1954, 30 per cent of the dwellings in Sweden and Norway, 41 per cent of those in France and 65 per cent of those in Italy were without running water.

In the same year, 38 per cent of the dwellings in Britain, 30 per cent in Switzerland, 57 per cent in Germany, 70 per cent in Sweden and in Holland, and between 80 and 95 per cent in all the other countries of Europe were without a bathroom.[21] In Britain slum dwellings were numbered at 850,000, in Belgium at 200,000 and in

* Here are estimates made by the Soviet economist P. Mstislavsky.

	Annual consumption per head of population		
	Ideal rational norms	*U.S.A.*	*Britain*
Meat (kg.)	73–91	73·7	48·3
Fish (kg.)	7–16	5·1	10·4
Milk (kg.)	292–585	240	209
Sugar (kg.)	27–33	45·3	38·1
Eggs (units)	175–370	392	227
Cotton goods (metres)	50–57	54·3	25·6
Woollens (square metres)	4·9–7·2	2·7	5·6

These norms of rational consumption were worked out by the Soviet Academy of Sciences, taking into account, on the one hand, different climatic requirements, and, on the other, reciprocal compensation as between different products which can be substituted for each other. Hence the sometimes marked variations in these norms.[20]

the U.S.A. at 13 million. And even the dwellings regarded at present as normal or even comfortable often deserve to be replaced as part of a programme of rational reconstruction of towns in accordance with the principles of town planning.

Around 1950, annual output of books per thousand inhabitants was in France and Italy only 50 per cent of the level in the Scandinavian countries, in Germany 35 per cent, and in the U.S.A. 14 per cent.

Around 1955, in most of the Western countries, the number of secondary school pupils of working-class origin was less than 50 per cent of the number of middle-class origin. University students of working-class origin rarely made up more than 10 per cent of the total in countries where the working class constituted 50 per cent or more of the occupied population. In Britain, according to the Crowther Report, 70 per cent of all children still left school for good at the age of 15.

Around the same year, infantile mortality among skilled workers was *double*, and among labourers *three times* what it was among the bourgeoisie, in Britain and France, in spite of social security.

In 1957, between one-third and two-fifths of the families in Western Europe were still without radio sets, and only 10 to 20 per cent of families had a washing machine or a refrigerator.[22]

Finally, even in the U.S.A., the richest country in the world, nearly 60 per cent of persons aged over 65 had to exist on less than a thousand dollars a year in 1958.[23]

A tremendous productive effort is thus needed, even in Europe, in order to achieve for everyone the optimum standard of life which science and technique make possible today. The transition period between capitalism and socialism must enable this effort to be made.

Sources of international socialist accumulation

World economy is the ideal framework for solving the crucial problem of the transition period, that of socialist accumulation. Given this framework, indeed, socialist economy would be able to exploit to the full the advantages of the world division of labour, without, of course, treating it as something unchangeable, modifying it in proportion as the under-developed countries become industrialised, but deciding on the world scale the optimum locations for industrial, mining and agricultural activity which would make it possible to save the maximum amount of labour, both living and dead. Within this framework a vast operation of world-wide redistribution of resources could be carried through without any sacrifice of consumption being implied for any people. Thanks to this redistribution, the world rate of accumulation, and especially the rate of industrialisation of the

under-developed countries, could be considerably increased, while the standard of living of all the peoples could be raised at the same time.

This seems at first to be contradictory. How is it possible to increase simultaneously the rate of accumulation and the real volume of world consumption? The key to the mystery lies in the existence of *an immense fund of unproductive consumption*, the most important part of which, arms expenditure, has certainly amounted to more than 120 billion dollars *a year* for several years now.

The amount of capital needed for rapid industrialisation of the under-developed countries has been estimated by a number of writers. A United Nations publication estimates at 2,500 billion dollars the investments which would give the whole continent of Asia an individual product per head of population equal to that in Japan on the eve of the Second World War.[24] This represents merely 20 annual contributions of 120 billion dollars, and the enormous industry thus created would itself furnish the resources needed to double this income within a dozen years. Taking into consideration the population of Africa and of Latin America, the funds required for an "industrialisation without tears" of the whole of under-developed mankind* can be estimated at some 3,000 billion dollars. By devoting for between thirty and forty years the resources at present wasted on rearmament to the industrialisation of the "third world", the "world problem" could be solved before the end of this century.

Professor A. Bonné has put forward estimates which are somewhat more optimistic. He calculates that 170 billion dollars would be needed, over 15 years, in order to increase income by 250 per cent and bring down the proportion of the occupied population engaged in agriculture from 80 per cent to 65 per cent in Asia. Investment not of 170 but of 850 billion dollars would raise income to ten times the starting level, and less than half of the occupied population would be engaged in

* This figure has been arrived at like this. At present, the income of some 1·4 billion inhabitants of the under-developed regions is estimated by Tinbergen at 130 billion dollars. According to Paul G. Hoffman, 7 billion dollars aid each year would make it possible to increase income per head by 2 per cent per year.[25] Aid at the rate of 70 billion dollars would thus make possible an increase of 20 per cent per year in this income per head. The growth of the population of these areas is estimated to be proceeding at such a rate that in forty years it will have increased from 1·4 billion to 3·1 billion people. At the same time, the rate of internal saving in these countries, at present 5 to 6 per cent, would stand after 10 years at 8 to 10 per cent, at 15 per cent after 20 years, and 18 to 20 per cent after 25 years. Assuming that the investment of 3 dollars increases income by one dollar, income per head would then rise from 100 dollars at present to some 220 after 10 years, 315 after 15 years, 375 after 20 years, 425 after 25 years, 510 after 30 years, 620 after 35 years, and 800 after 40 years, which would be equivalent to the present income per head in Britain. It should be observed that from the 27th year onward, the effect of internal saving would exceed that of foreign aid.

agriculture. But he quotes a United Nations source which estimates at 19 billion dollars a year the resources needed to increase income by 2 per cent and shift 1 per cent of the population of all the underdeveloped countries into industry.[26] By multiplying these figures by five, we obtain an annual rate of growth of 10 per cent, giving a total income multiplied by 15 after 30 to 35 years, the same result as previously obtained.

We are not unaware that human problems—changing of ways of life and habits; adaptation to rationalised urban existence; problems of education, technical training, etc.—may well delay this process considerably. The mere fact, though, that the *material* solution of the problem is theoretically conceivable before the end of the century ought to give rise to a veritable revolution in the behaviour of men and nations.

The advantage of this solution lies in the fact that in the industrialised countries this huge effort would not have to be paid for by any cutting down of popular consumption, either individual or collective, nor by any slowing down of economic expansion. The structure of industry itself would not be essentially modified. Within the framework of a world plan of economic development, all that would be needed would be to reconvert the arms factories, turning them over to the production of capital goods, building materials, means of communication and transport for the "third world", and to finance, without any increase in cost, the training of teachers, technical instructors, engineers, doctors, nurses and psychologists in these countries, instead of training officers, airmen, rocket-builders, specialists in logistics or "welfare" experts for the armed forces.

All the advantages entailed by national economic planning and the abolition of the capitalist régime in the advanced industrial countries would then remain at the exclusive disposal of the peoples of these countries, and enable them to make a new leap forward in their standard of living.

The working out of a world plan of economic development on these lines—mankind's task No. 1—would in addition enable the underdeveloped countries to acquire immediately the most up-to-date forms of modern technique. It would save them from the need to pass through the successive stages undergone by the industrialisation of the capitalist West or the Soviet Union. It would make possible a rationalisation of the use of the world's resources going far beyond the boldest dreams of mankind. Gigantic projects which even today are too great to be accomplished by the most advanced countries—the irrigation and fertilisation of the Sahara; the transformation of the Amazonian jungle; the settlement and industrialisation of Sinkiang; the organisation of expeditions to the planets—would be put into practice by a joint effort of the human race, so as to increase the well-

being of all men. The enormous waste implicit in the continued existence of the national state—not only through military expenditure and customs administration, but also commercial waste such as the ban on the export of used cars from the U.S.A., which results every year in over a million vehicles, perfectly capable of remaining on the road for a long time yet, being transformed into scrap-iron—would be done away with at one blow.

Sources of socialist accumulation in the industrialised countries

To solve the problems of the transition period a fresh advance of the productive forces will be needed. In the industrially advanced countries this advance can evidently be made without a lowering of the living standards of the masses. On the contrary, indeed, it can go forward in company with a rapid improvement in this standard. For this purpose it will be sufficient to list the forms of waste implicit in capitalist economy and which socialist planning will be able to eliminate.*

This is where the chief, if not the only, source of any additional accumulation fund needed for more rapid economic growth, and of any additional consumption fund needed for a parallel increase in popular well-being, is to be found.

The chief sources of socialist accumulation are thus:

1. *Permanent full employment of existing productive forces*

In the capitalist mode of production, the existing productive forces (mainly, workers and equipment) are periodically subject to considerable under-employment, owing to cyclical economic fluctuations. Leon Henderson estimates at the enormous figure of 300 billion dollars the loss of earnings by the American people during 1930–1940, through the under-employment of men and equipment as compared with the 1929 level.[27] The 1949 recession alone led to a fall in the U.S.A. national product of 16·5 billion dollars, without considering the loss of normal growth, which is equivalent to an additional 7·5–9 billion dollars. The loss suffered by the American people through the recession of 1957–58 and the interruptions of the normal growth-rate during those two years can be put at 50 billion dollars.

In addition, it must be remembered that even during prosperity years the under-employment of men and plant is considerable. A highly-placed American official, Isadore Lubin, has estimated it at 20 per

* A remarkable analysis of several forms of social waste which result from private enterprise has been undertaken by K. William Kapp: "The social costs of private enterprise" (Harvard University Press 1950). Kapp stresses especially those costs which are imposed upon the community as a whole under capitalism, and which would be reduced or even suppressed through a change in the social system, like the consequences of air and water pollution, the waste of natural animal, mineral and energy resources, the multiplication of work accidents and professional diseases, etc.

cent of the plant for the boom year 1929.[28] We have shown elsewhere* the size of the productive capacity left idle in certain branches of industry during the prosperity period 1954–1957. In 1959 the mere existence of an average of 4 million unemployed in the U.S.A. undoubtedly caused the American people to lose the equivalent of an annual product of 16 to 20 billion dollars. In 1955 and 1956, though these were prosperity years, the steel industry worked at only 83 per cent and 80 per cent, respectively of its capacity.

Finally we must mention another way in which existing resources are under-employed: the hoarding (open or concealed) of these resources in the form of excessive stocks, accumulation funds hidden away through the special financial practices of big concerns† etc. In the present state of affairs, full employment of the existing productive forces would undoubtedly increase the five-yearly income of the U.S.A. by 20 per cent, that is, would make possible a doubling of the growth-rate of the economy and at the same time increase to a striking degree the consumption of the lower income-groups.

2. *Elimination of extravagant luxury expenditure*

According to Kuznets, the 5 per cent of American taxpayers who declared the highest incomes (2·5 million persons) received in 1948 18 per cent of the national income, or, in all, nearly 40 billion dollars.[29] Assuming that tax-evasion does not exceed 20 per cent in these groups —an estimate which is lower than the opinion of experts[30]—we arrive at an actual income of 50 billion, or 20,000 dollars per family. Now, the average income of all taxpayers in the U.S.A. in that year was 4,200 dollars. If we take whatever exceeds three times this average expenditure as being superfluous luxury, we arrive at the possibility of saving 22 billion dollars; even if we fix the threshold of waste at *four* times the average income, we still get a recoverable amount of 8 billion dollars. This is merely the degree of wasteful expenditure which is also to be found in the upper middle classes.

The counterpart of this figure is constituted by the goods and services which a socialist nation would regard as superfluous and wasteful. No sensible person can accept as normal a situation in which a nation spends more on betting, gambling or drink than on scientific and medical research, the struggle against cancer, and university education, yet this is the present state of affairs in Britain and the U.S.A.

Abolition of luxury and waste, or obviously harmful forms of expenditure, would by itself be sufficient to make possible a doubling of useful public consumption in the western world, that is, in particular, expenditure on education, health, public transport, conservation of natural resources, etc.

* See Chapter 14, section on "Overcapitalisation".

† See Chapter 14, section on "Self-financing"

3. *Reduction of distribution costs*

The growth in costs of distribution is partly due to technical causes which even a socialist society would not be able to abolish completely. But it also includes an increasingly important element of *selling costs* which are connected with the special nature of present-day capitalist economy, as we have shown in Chapter 6. Intensive rationalisations of the distribution network, cutting out all unnecessary middlemen, placing of selling-points to suit consumers' interests, substantial reduction in advertising expenditure, organisation of storage of goods in accordance with objective principles and not with the chance ups and downs of production and sale for profit—all this ought to make it possible to reduce by half the distribution charges which today make up nearly 50 per cent of the retail price of goods in the U.S.A.

4. *Rational organisation of industry*

The system of private enterprise, even when it operates under conditions of full employment, implies a great deal of wastage. To list only a few aspects of this: the system of private patents and business secrets holds back standardisation and mass production in several spheres, for instance in that of machine-tools (see the study carried out by Professor Seymour Melman on behalf of the O.E.E.C.); the demands of profit hinder the introduction of revolutionary technical innovations so long as plant belonging to the big monopolies has not been fully depreciated;[31] the monopoly system entails irrational investments;[32] the lack of co-ordination and co-operation among all enterprises leads to uneven distribution of technical progress; obsolete equipment continues to be manufactured and even freshly installed when more up-to-date machines are already available; the decline of enterprises and of entire industries takes place in violent jerks and bumps which involve destruction of resources and values; investments are made in accordance with the criterion of the *individual* advantages of each firm and not with that of *overall* benefit to the entire economy.

5. *Freeing of the creative power of the workers*

In capitalist industry the worker feels reduced to the role of an inanimate unit in an extremely complex production process. This same worker, if given some direct or indirect responsibility for the management of his enterprise, would find an outlet for tremendous powers of invention and ingenuity, especially if experience were to teach him that any increase in production and any reduction in the cost of the goods produced would be automatically translated into an increase in his standard of living and that of the local community in which he lived.

Finally, whereas under capitalism a new technique of production is not introduced unless it increases profit, it would be introduced

under a planned economy as soon as it offered a saving of living labour at no extra cost.

It is not possible to calculate the total amount of additional resources which a socialist economy would obtain from these five chief sources. They would undoubtedly make it possible to start a cumulative process of accelerated growth which would soon bring these countries to a stage of abundance of consumer goods, perishable, semi-durable and durable alike.

By raising, for example, the annual growth-rate of the economy of Western Europe from an average of 5 per cent to an average of 10 per cent, it would be possible to surpass the present American standard of living within less than ten years. By raising the annual growth-rate of the U.S.A. from 3 per cent to 7 per cent the standard of living in that country could be doubled in less than ten years. Once a number of basic needs had been satisfied, all subsequent increase in resources would be concentrated more and more exclusively on an ever smaller number of needs which were still unsatisfied to a considerable extent. Plenty, and the withering-away of commodity economy, would draw nearer with giant strides.*

Sources of socialist accumulation in the under-developed countries

The task of solving the problems of the transition period in an under-developed country, without substantial aid from the industrially advanced parts of the world, is very much more difficult; it implies dramatic choices such as are illustrated by the history of the U.S.S.R. between 1917 and 1953. True, it is not likely the problem will ever present itself again in the same extreme form, in view of the tremendous pressure which the "third world", swept forward by the colonial revolution, brings to bear nowadays on the industrialised countries, and in view, too, of the existence of non-capitalist industrially-developed countries. Nevertheless, the general setting of the problems of socialist accumulation in the under-developed countries remains to be considered.

Often, in talking about these countries, people speak of a "vicious circle of poverty": because they are poor, the under-developed countries do not possess large funds available for investment; and because they cannot invest more than 5 to 6 per cent of their national income they remain under-developed.[33] Various writers, such as Paul A. Baran, have shown that this reasoning is fallacious.[34] It is based on a confusion between the productive accumulation fund and what Baran calls the "potential surplus" of these countries. In fact, it is a question of the definition of the concept of social surplus-product. Contrary to what some economists allege, the social surplus product in these

* See Chapter 17; "Socialist economy".

countries is a higher, not a lower, proportion of the gross national product than in the industrialised countries. *The poverty of the under-developed countries does not arise so much from the inadequacy of this surplus product as from the bad use made of it*, from the standpoint of economic growth.

Following Baran, we can list the following slices of the social surplus-product of the under-developed countries which are practically lost to the productive accumulation (investment) fund:

1. The agricultural surplus product taken by the landlords: the bulk of this is spent unproductively (the Egyptian pashas and Iranian aristocrats who live on the Côte d'Azur or spread themselves in all the casinos of Europe) or else hoarded (the enormous hoarding of gold in India).
2. The share of the agricultural surplus product taken by the usurers and traders who live in the country areas. This usually goes into buying land (that is, it merely causes an artificial rise in the price of land and in rents), into an increase in the quantity of usurer's or merchant's capital, which is already excessive, into hoards, or into luxury consumption.
3. The share of the social surplus product which is exported from the country by foreign firms, a very large share in some colonial countries.*
4. The share of the social surplus product taken (and transformed into unproductive consumption) by the *lumpenbourgeoisie* and the state bureaucracy, by way of corruption, crime and debauchery. This may attain dimensions often unsuspected in the West.†

If we take into account that the agricultural surplus product alone amounts in a number of under-developed countries from 30 to 35 per cent of the agricultural product and that the latter often exceeds 50 per cent of the national product, we see what huge and unsuspected reserves would be released by agrarian revolution and the centralisation of part of the agricultural surplus product by the state, for speeding up industrialisation. Bonné declares that ground rent alone has been estimated at 20 per cent of the national income of Egypt.[35]

The foregoing relates only to the national product of an under-developed country which is approaching the period of transition and the task of socialist accumulation. But alongside this actual surplus product there is a huge *potential surplus product* which many under-

* See Chapter 13.

† According to *Le Monde* of 19th March, 1960, under the Batista dictatorship whole quarters of Havana were controlled by the police, the pimps and the lottery organisers, that is, the political "bosses". The "turnover" of this *lumpenbourgeoisie* attained millions of dollars each year. Similar situations exist (or existed) in Saigon, Alexandria, Hong Kong, Rio, etc.

developed countries can mobilise, namely, the potential represented by labour which is idle owing to under-employment in the countryside.*

Professor Ragnar Nurkse was the first to focus attention in a systematic way on this fundamental aspect of the problem. If we acknowledge that the bulk of the rural population in the underdeveloped countries which are densely populated work only a few days every week, taking the average over a year, then we implicitly admit that an enormous quantity of products and services could be made available to the national community if this population were regularly employed for five or six days a week.[36]

Of course, it is necessary to be careful of over-simplifying the problem. In the first place, a large share of this increased production will take the form of agricultural production, especially in the absence of implements of labour which would make it possible to use this productive power in profitable fashion in small-scale rural industry.† Of this increased agricultural production, a substantial proportion will be consumed by the producers themselves; this will be, in fact, the surest means of raising their standard of living. This increase in peasant consumption is, moreover, a physiological necessity, since the miserable subsistence rations available to the peasants at present make possible only not very productive labour, at a very slow pace.

Furthermore, this mobilisation of millions of peasants for regular work which upsets their ancestral customs demands the presence of a political and/or social force able to mobilise them, which is capable of obtaining this effort from the peasants *willingly*; any attempt to transform this mobilisation into a *system of forced labour* would quickly lead to a fall in output and would be felt on a large scale as a waste of resources, from the standpoint of economic growth.‡

Finally, the possibilities of increasing agricultural production are not infinite (a limited cultivable area; a limited amount of implements, fertilizer, etc.; availability; impossibility of revolutionising technique

* See Chapter 13.

† Professor Bonné shows that one hectare of irrigated land requires five times more work than one hectare of non-irrigated land. In the irrigated areas of India the peasants are kept busy for 280 days in the year, on the average, as against only 114-118 days in the non-irrigated areas. In China, before the "commune" movement, the situation was the same.[37] As the bulk of the arable land is not yet irrigated in India or China—55 per cent in China, 85 per cent in India—the possibilities of increasing production and raising the standard of living are thus considerable in these countries.

‡ Professor Nurkse is willing to recognise the physiological need to feed workers better than unemployed persons. Nevertheless he remains preoccupied by the problem of avoiding "leakage" from the accumulation fund into consumption by the producers.[38] He does not seem to grasp the obvious link between increased consumption and increased productivity of labour.

without new implements, etc.). Therefore, the full employment of the rural masses may imply the need to mobilise these masses to some extent to carry out "infrastructural" works (roads, canals, railways), house building, and even primitive industrial work, if the equipment for its employment in modern industry is lacking.

It is in the last-mentioned eventuality that the voluntary and enthusiastic nature of this mobilisation will be the hardest to preserve, as the example of the Chinese communes has shown. The solution of the problem lies in the carrying-out first of all of works which make possible an immediate raising of the standard of living of the rural communities themselves, for example, the building of peasants' houses, of schools, infirmaries and hospitals, etc. An extensive, though often fragmentary, body of experience, is beginning to be accumulated in this sphere, in China, in ex-French Guinea and especially in Cuba.[39]

The normalisation of the working period in the countryside as an instrument of economic growth is subordinate to a social revolution in agriculture. Without such a revolution, the mobilisation of the peasants must inevitably resemble forced labour. Moreover, the existence of a class of landlords enables the latter to take a large share of the new social surplus product and divert it from the potential fund of primitive accumulation into their own unproductive consumption fund. Only in Equatorial Africa, wherever private ownership of land is lacking, is this agrarian revolution not necessary. What is needed there, on the other hand, is a social revolution to free the tribal communities from control by exploiting chiefs who are more or less integrated into capitalist economy.

Maximum and optimum rates of accumulation

We now come to the key problem of the transition period: determining the optimum growth-rate. This problem has to be looked at in both its economic and its social aspect. Examination will show, moreover, that, in contrast to what is usually supposed, these two ways of considering the problem do not lead to opposite conclusions.

Countless writers have repeated that the low standard of living of the Soviet people during the phase of rapid industrialisation was "inevitable" if it was desired to accelerate this process. Others have even made the generalisation that no substantial increase in a country's growth-rate is possible except by reducing its standard of living.[40] We have already alluded more than once to simplistic conclusions of the same type. They always spring from the same source: a mistaken notion of how the national product (the national income) is shared out, whether in capitalist society or in a society in transition from capitalism to socialism.

Prevailing opinion divides this income into two parts: the current

consumption fund and the accumulation fund.* The latter cannot increase without reducing the former. Now, the accumulation fund makes it possible to increase future consumption. Thus, it is claimed, the producers in the transition epoch would inevitably be obliged to choose between immediately increased consumption and quicker economic growth (increased consumption in the future). The higher the rate of growth, the bigger the sacrifices that must be imposed on the consumers.

This reasoning is faulty on two counts. First, it is incorrect to divide current income into only two parts: consumption by the producers, and the accumulation fund needed to ensure economic growth. And it is only if this is in fact the way the national income is composed that any increase in the second element necessarily implies a reduction in the first. In reality, current product is divided three ways: the producers' consumption fund, the productive investment (productive accumulation) fund, and that part of the social surplus product which is consumed unproductively. A reduction in this third element makes it possible to increase *simultaneously* both the first and the second.†

* This mistake has been encouraged by a false interpretation of certain of Keynes's formulae. Keynes defines the national income as the sum of consumption and saving. He then puts the sign of equality between saving and investment. But he makes quite clear that, in this sense, "saving"="investment"="everything that is not currently consumed".[41] Any conclusion drawn from this tautology regarding the ratio between consumption by the *producers* and *productive investment* is of course, misconceived. It is needless to add that with the *capitalist* régime an increase in the rate of profit expected (and so a reduction in the *relative share* of the national income obtained by the workers) is often a condition for any considerable increase in investment. But this is precisely one of the main reasons for *condemning* the capitalist mode of production!

† In his book on *Theoretical and Practical Problems of Planning*, Charles Bettelheim explicitly mentions these possibilities, without perceiving their whole social significance. "Two solutions only make it possible, in the event of an increase in the working population, to maintain both full employment and the same formulae of production: either, at the start, the reduction of wages to a definite proportion of the value produced, or the financing of this extension by reducing unproductive expenditure."[42] In his subsequent works he increasingly loses sight of this problem.

It must be pointed out, too, that in 1926–7 the United Left Opposition in the Russian Communist Party (the Trotsky-Zinoviev tendency) proposed increasing *simultaneously* the amount paid in wages and the rate of industrialisation (the amount devoted to productive investment), through a strict cutting-down in administrative expenses and other unproductive forms of expenditure, together with reductions in the resources of the well-to-do classes, to the extent of a billion gold roubles a year.

The Soviet economists who, in that period, were determining the models for the development of the U.S.S.R's economy were not at all unaware of the impact which an excessive rate of accumulation would have on the productivity of labour. The economist N. A. Kovalevsky explicitly referred to it. Later, however, this factor came to be completely overlooked in the writings of the Stalin era.[43]

Marxist writers have been led into the same error through applying, in a mechanical way, the reproduction formulae drawn up by Marx for problems of growth in a society in transition from capitalism to socialism. This has led to many ambiguities, both theoretical and practical.

Thus, in capitalist society in its "pure" form, V represents merely the wages of the productive workers, and S represents surplus value, in the widest sense of the expression. To determine, however, actual consumption by the workers, on the one hand, and the actual amount of the investment fund on the other, it is not enough to subtract from the net product the total amount paid in wages in the literal sense, and then compare it with what is left over. We must take into account collective consumption by the workers (free services or subsidies in respect of health, education, housing, etc.), which forms an integral part of the productive consumption fund; we must also take into account all the expenditure on unproductive consumption and unproductive investment (administration, armed forces, consumption by the privileged strata, etc.).

The true starting formula needed to determine the respective shares of producers' consumption and of the investment fund is to be deduced from an analysis of the gross product in the following terms:

(a) Fund for renewal of productive fixed capital.
(b) Productive consumption fund: wages and salaries of the producers and their families (including pensioners, sick, etc.), plus collective consumption which raises the standard of living, plus replacement of producers' housing.
(c) Unproductive consumption fund: salaries, plus collective consumption by society as a whole which does not increase the standard of living of the producers (administration, armed forces, etc.).
(d) Minimum necessary reserve fund (stocks, etc.).
(e) Potential investment fund: what is left of the gross product after deduction of a+b+c+d.

Soviet writers still decline to make this elementary distinction between the productive consumption fund and the unproductive consumption fund. Thus, A. D. Allakhverdian wrote in 1951: "The consumption fund is made up of receipts directly devoted to individual consumption by the working people of socialist society and to satisfying their social needs . . . It also includes the greater part [?] of the expenditure devoted to the needs of defence and security."[44]

And M. Bor says the same thing in 1954: "The consumption fund must satisfy *(a)* those needs of the population which are covered by individual incomes, *(b)* the needs of the members of the armed forces, and *(c)* the material expenditure involved in the maintenance and

working of the unproductive sector (including expenditure resulting from the wear and tear of houses and other elements of unproductive equipment)."[45]

We here observe, let us mention in passing, a curious departure from the labour theory of value, and a borrowing from marginalist notions, which we will look at more closely in Chapter 18, when we study Soviet theory regarding wages and salaries. Armed forces are doubtless indispensable to the U.S.S.R., just as the work done by doctors is doubtless socially useful. Neither the former nor the latter, however, produce value . . .

The view according to which any increase in the investment fund automatically implies a reduction in the producers' consumption fund is furthermore erroneous because it treats the rate of economic growth and this producers' consumption as though they were two factors independent of each other. In reality, the poorer a country is, and the lower the standard of living of its producers, *the more the rate of economic growth is a function of the producers' consumption.* Any reduction in the producers' standard of living entails a relative decline in the productivity of labour, which partly offsets the positive results of the increase in the stock of capital goods.*

Schematically, we could set out the following formula, in which P represents the annual product, K the available stock of capital, and O the average output of labour: †

$$P_1 = C_1 + V_1 + S_1 = K_1 \times O_1$$

* Joan Robinson admits this only as regards the "physiological subsistence level". If real wages fall below this level, "efficiency is impaired", and the output of labour falls.[46] Other writers, however, speak of "mixed consumer goods", consumption of which increases production. Thus, Carl S. Shoup estimates that any increase in production which results from an improvement in wages paid to the producers shows that a share of consumer goods come into this category. This case is a general one, except in the richest countries; and even that exception is perhaps not justified. Steindl claims that any reduction of real wages below a certain level leads to a fall in the productivity of labour. It is odd that the Soviet writers who constantly underline the importance of the "producer's material incentive" for increasing production at the *micro-economic* level stubbornly refuse to take the same factor into account at the *macro-economic* level. Recently, however, some Yugoslav economists have recognised its importance.[47]

† The concept of "output of labour" is one of the constituents of what the Indian Professor Mahalanobis called the "income coefficient of an investment". It is thus also one of the constituents of the "investment yield", a term used by Ch. Bettelheim.[48] This yield depends both on the intrinsic efficiency of the investment and on the output of labour, that is, the way in which living labour realises (utilises) this theoretical, potential efficiency. Bettelheim examines this problem only from the standpoint of the technical skill of the workers,[49] and not at all from that of their application to their work as a function of their level of consumption. It is the reciprocal of what academic political economy calls the capital coefficient.

"*S* accumulated in *C*", the part of the social surplus product which is accumulated in the form of machinery, etc., is added to K_1 so as to provide the new stock of capital available in the course of the following year:

$$K_1 + S \text{ acc. in } C = K_1 + \Delta K = K_2$$

which will give an annual product:

$$K_2 \times O_2 = C_2 + V_2 + S_2 = P_2$$

But if V_2 is smaller than V_1, O_2 will be smaller than O_1. Consequently, $K_2 \times O_2$, while greater than $K_1 \times O_1$, will be smaller than $K_2 \times 0_1$, that is, the advantage resulting from the increase in productive investment will be to some extent offset by the lowering of the productive output of the workers.

It follows logically from this that there is an ideal value of K, K^1, higher than K_1, but lower than K_2, which will make it possible to attain the maximum product P^m, thanks to an increased productive effort by the workers which results from an improvement in their standard of living:

$$K^1 \times O^1 = P^m, O^1 \text{ being higher than both } 0_2 \text{ and } O_1.$$

Now, O^1 presupposes a level of wages V^1, higher than V_1. The ideal division of P_1 will thus be one which makes it possible to increase K_1 in such a way as to achieve simultaneously the growth of V_1, from which O^1 will result.

Let us suppose that a country possesses a stock of fixed capital of 100 billions, which makes possible the production of an annual income of 35 billions, of which 25 billions would be consumed by the producers. If, in order to bring up the stock from 100 to 150 billion, the annual productive investment is increased from 5 to 10 billion, by reducing consumption by the producers for, say, five years, from 25 to 20 billion, then it is probable that at the end of this five-year period the 150-billion stock of capital will give not an income of 50 billion but rather one of 45 billion. The investment "pays" less than was expected, because output is less than was expected.

And we can now bring together the two parts of the argument. *A decline (or an excessively prolonged stagnation) in real consumption by the producers has a twofold negative effect on the rate of economic growth.* On the one hand it causes relative under-employment of new equipment, an average productivity of labour considerably lower than was expected. On the other, it gives rise to phenomena of indiscipline and large-scale fluctuation in the labour-force, if not to strikes, sabotage, etc. In order to neutralise to some extent the consequences of this revolt by the producers against their too low standard of living, the leaders of the economy will have to increase the element of coercion, whether direct (police) or indirect (supervisors, foremen and checkers of all kinds), to which the producers are subjected. But an increase in

this coercion implies a diversion of resources and men from productive to unproductive purposes, with the unproductive consumption fund growing. An excessive rate of accumulation which lowers the standard of living of the producers thus leads to a growth-rate which is less than the optimum, both because of the reduced productive effort of the workers and because of the wastage of an increasing proportion of the social surplus product for unproductive purposes. *The maximum rate of accumulation is never the optimum rate,* that is, it never makes possible the most rapid growth of the economy.

The optimum rate of accumulation, the one that makes possible the quickest growth, taking into account all the above-mentioned factors, cannot obviously be determined except through a series of experiments, successive approximations and broadly democratic discussions. Indeed, the workers' reactions to different variations in their standard of living are not given once for all time. On the contrary, they are an extremely variable element, which depends on historical factors (the past and present standard of living), psychological factors (the hopes and disappointments of the masses), political factors (their relative confidence in the leadership of the country) and social factors (the extent to which they effectively participate in the management of the economy and of the separate enterprises). These reactions may even vary within a single country from period to period, according to circumstances.

In a country like the U.S.A. the marginal growth of the workers' productive effort depends less on an increase in wages than on a change in the hierarchical structure of the enterprise and in the producers' feeling of being "masters in the house". In a country like India, or Indonesia, however, the elasticity of this effort in relation to the standard of living will be considerable.

The experience of the U.S.S.R. during the First Five-Year Plan affords a striking example of this proposition. In order to achieve the aims of the First Five-Year Plan, an increase in wage-labour force from 11·3 million to 14·8 or 15·8 million workers had been envisaged. In reality, this force had to be increased to 22·9 million, that is, *the number of workers hired had to be twice what had been envisaged,* in order to arrive at the results of 1932.[50] Even so, the aims of the First Five-Year Plan were not realised in most branches of industry,[51] and this despite the fact that employment in industry alone exceeded by 50 per cent the figure envisaged by the plan (6·3 million as against 4·1 million). The conclusion is self-evident: the *actual productivity of labour was over 35 per cent less than what had been envisaged,* P_2 was less than 65 per cent of P_1.*

* Professor Kalecki[52] makes the rate of growth depend directly on the rate of investment, even though he allows for a coefficient $\frac{1}{m}$ which he calls the "productive effect of investment", comparable to Bettelheim's "investment yield"

Note on the "law of priority in the development of the capital goods sector".

The theory by which "the capital goods sector must increase more quickly than the consumer goods sector", in order to ensure a high growth-rate in the economy, is based on a crude confusion. From the reproduction diagrams in Marx it merely follows that the *absolute amount* accumulated in department I must be higher than the *absolute amount* accumulated in department II in order to ensure expanded reproduction, but not at all that the *rate* of accumulation has to be higher in department I than in department II.

Maurice Dobb, who has endeavoured to justify mathematically the official Soviet doctrine on this point, has merely shown that if the growth rate of I is not higher than that of II, the *rate* of growth of II will not be able to *increase* in the long run.[54] But the *future* increase of this *rate* is neither a necessity nor a consolation for a too exiguous rate in the present. A harmonious increase in the two departments, with a practically equal rate in both, is as possible as it is often economically desirable.

Following several other writers, Ch. Bettelheim shows that the larger the proportion of total investments devoted to department I, the larger the *future* growth in the national income compared with the present growth.[55] But the converse is also true: the more investment is directed exclusively into I, the more it relates to long-term projects, and the slower will be the *immediate* growth of the national income. This obviously cannot be the ideal situation, to stagnate for thirty years in the hope that, later on, one will get shaved for nothing. It is odd that Bettelheim here forgets what he had nevertheless grasped at the outset of his work:

> "These transformations cannot take place at the speed desired, despite the interests opposed to them, unless the State's activity really takes this direction and unless this activity is powerfully backed by the social forces which are to benefit from economic development. In its turn, this backing will not be given, with the necessary power, *unless those who are to benefit from economic development appreciate from the start that the economic policy being applied involves real advantages for them*" . . .[56]

Paul A. Baran acknowledges that there is a correlation between the

and like that concept, the reciprocal of the capital coefficient. But the value of $\frac{1}{m}$ depends exclusively on the nature of the technical progress, that is, on the fact that it either saves capital or it absorbs more capital; Kalecki does not seem to take into account at all the impact of the level of consumption of the producers on their productive effort, and thereby, on the productive effect of an investment. This allows him to state that the more consumption declines, the more income can increase, the only obstacle being . . . the shortage [!] of labour-power.[53]

rate of accumulation, the level of consumption and "the ability and willingness to work on the part of the population".[57] But he overlooks entirely the problem of the proportion of the surplus-product which is unproductively consumed (or accumulated), and he gives a mistaken interpretation of what has happened in the U.S.S.R., declaring that by 1937 [!] the food problem had been "solved" in the U.S.S.R. and that the production of consumer goods thenceforth achieved an adequate growth.[58] Soviet leaders, including Khrushchev himself, have contradicted this prettified interpretation of the facts and confirmed the analysis we have developed above.

For several years now Soviet writers have even been declaring that "priority in the development of department I (capital goods) as compared with department II (consumer goods) is a law of socialist expanded reproduction".[59]*

This conception includes several erroneous extrapolations of the Marxist theory (and formulae) of *capitalist* expanded reproduction, to make these applicable to the expanded reproduction of a transitional society, and *a fortiori* to a socialist society.

Let us recall first of all that the formulae of capitalist expanded reproduction† do not reflect relations between *quantities of products* but relations of *value*. The fact that department II increases in this case more slowly than department I corresponds above all to the increase in the organic composition of capital. The newly-produced value tends to be distributed in such a way that variable capital (wages) occupies a smaller place than in the division of the social product in the previous cycle. And as, *under the capitalist régime*, growth in the productivity of labour is justified only on condition that "wage costs" are reduced, running parallel to this "increase in the organic composition of capital" is a slower growth of department II than of department I.

One can, however, perfectly well imagine a planned economy developing with a growth-rate of producers' consumption equal to the general growth-rate of the economy (that is, *without increasing the rate* of investment). Expanded reproduction would be quite well ensured under these conditions, as is shown, for example, in the following reproduction diagrams:

$$\text{1st cycle} \quad \left\{ \begin{array}{rl} \text{I}: & 4{,}000c + 2{,}000v + 2{,}000s = 8{,}000 \\ \text{II}: & 2{,}400c + 1{,}200v + 1{,}200s = 4{,}800 \end{array} \right\} \; 12{,}800$$

* Maurice Dobb has not felt able to confirm this absolute affirmation; he has contented himself with declaring that there are three necessary successive phases: one during which department I grows faster than department II; a second during which growth-rates are the same in the two departments; and a third, in which the growth-rate of department II exceeds that of department I.[60]

† See Chapter 10.

$$\text{2nd cycle} \begin{cases} \text{I}: 5{,}000c + 2{,}500v + 2{,}500s = 10{,}000 \\ \text{II}: 3{,}000c + 1{,}500v + 1{,}500s = 6{,}000 \end{cases} 16{,}000$$

$$\text{3rd cycle} \begin{cases} \text{I}: 6{,}250c + 3{,}125v + 3{,}125s = 12{,}500 \\ \text{II}: 3{,}750c + 1{,}875v + 1{,}875s = 7{,}500 \end{cases} 20{,}000$$

$$\text{4th cycle} \begin{cases} \text{I}: 7{,}815{\cdot}5c + 3{,}906{\cdot}25v + 3{,}906{\cdot}25s = 15{,}625 \\ \text{II}: 4{,}687{\cdot}5c + 2{,}343{\cdot}75v + 2{,}343{\cdot}75s = 9{,}375 \end{cases} 25{,}000$$

etc.

From one cycle to the next—one might envisage two-year or three-year cycles, to give an appearance of realism—the social product, the product of each of these two departments, the incomes and consumption of the producers, rise in the same proportion, namely, 25 per cent. At the same time, *expanded* reproduction is ensured because in *absolute* value the volume (of the value) of department I has increased more than the volume (of the value) of department II. Between the first cycle and the fourth, the production of department I has increased by 7,625, and that of department II by only 4,575. With an equal growth-rate in both departments, the quantity of instruments of labour, of equipment, put at society's disposal, has increased in absolute terms so as to ensure a steady growth in social production.

Kronrod and other Soviet writers object that under these conditions the social productivity of labour ceases to grow.* But in a socialised and planned economy the growth in the "organic composition of capital" (the expression is, of course, out of place!) that is, *the reduction of the share of the social product going to wages*, is not at all a necessary condition for growth of the social productivity of labour.

The latter may result from the fact that thanks to the absolute growth of department I, the number of hours of labour needed to produce the social product declines, relatively or even absolutely. This increase in the productivity of labour would have been perfectly well realised if, in the successive cycles of our example, the hours of labour put in had evolved as follows:

1st cycle: 12,800 produced by 128 billion hours of labour
2nd cycle: 16,000 produced by 140 billion hours of labour
3rd cycle: 20,000 produced by 150 billion hours of labour
4th cycle: 25,000 produced by 160 billion hours of labour

This would imply an increase in productivity successively by 13·5 per cent, 18 per cent and 17·2 per cent.

* "It is clear [?] that priority for the development of heavy industry has been, still is and will remain the basis of the development of Soviet economy, and that priority in development of the production of the means of production is one of the laws of socialist economy, because this condition can alone guarantee that expanded reproduction takes place on the basis of growth in the productivity of labour."[61]

Increased productivity of labour may also manifest itself simply in the fact that from one cycle to the next the *quantity* produced increases more quickly than the *value*. If, to simplify matters the production of department I be reduced to production of steel and that of department II to production of textile goods, there will be an increase in productivity when, in our example, production in quantitative terms evolves like this:

		million tons of steel	*tons of textiles*
1st cycle:	8,000I + 4,800II =	4	+ 100,000
2nd cycle:	10,000I + 6,000II =	5·5	+ 130,000
3rd cycle:	12,500I + 7,500II =	7·5	+ 170,000
4th cycle:	15,625I + 9,375II =	9·5	+ 220,000
			etc.

One must always keep in mind that the productivity of labour is in the last analysis a matter of quantities of *products* created by *hours of labour*, and not necessarily of *values* with different "organic compositions".*

All the foregoing assumes, of course, a certain initial ratio in the division of capital goods between the two departments, a certain ratio between stock of capital and current production, etc. If these ratios are not satisfactory at the start, it may be inevitable that department I should develop at a faster rate than department II. This, however, is a question of a particular situation, not of a "general law of socialist expanded reproduction".†

* Kronrod himself seems to sense the gap in his argument when he says: "Each unit produced is created with an expenditure of labour, both living and congealed, which is being reduced all the time, but, on the scale of social production, its creation, like the production of the continuously growing *amount* of total product, requires the application, in the last analysis, of a relatively ever-increasing *amount* of means of production. This in turn implies that the production of department I increases faster than that of department II, not only [!] as regards value but also as regards physical volume."[62] A moment's reflection will show that this conclusion does not follow at all. *A single* machine can nowadays produce ten times the amount of newsprint that could be produced twenty years ago. The *amount* of means of production does not in the least have to increase faster than the *amount* of consumer goods produced. Indeed, it often increases much more slowly, and this happens precisely during phases of technological revolution!

† "Once producer-goods capacity is sufficient to supply the replacement needs of the consumer-goods industries and the normal additional needs imposed by the prescribed rate of growth, there is nothing to stop the two departments of the economy from expanding in step with one another at a constant rate, given constancy of capital/output ratios, which is always assumed by Soviet economists in their theoretical writings. What the rate is will, of course, depend on the ratio between the stocks of capital ('basic funds' in Soviet terminology) in the two sectors."[63]

The economic function of socialist democracy

We have just been considering the problem of the optimum rate of accumulation from the economic standpoint; now we must look at it from the social angle. While it is wrong to claim that any increase in the accumulation fund of an under-developed country can result only from an *absolute* lowering of producers' consumption, it is true that any increase in this fund represents a *relative* surrender of current consumption on the part of the workers; the resources used to make machines might have been used to produce consumer goods. It is specific to capitalist production that the investment decisions are taken behind the backs of the workers and the mass of the people. The fixing of the rate of investment, and of the real volume of their own consumption, which to a large extent results from this, takes place in a way totally independent of their will. Contrary to what is alleged by the neo-classical economists, investment is indeed a sacrifice of consumption, but it is not the capitalists but the producers who make the sacrifice. It is imposed upon the latter by the mechanism of market economy, the capitalist "rules of the game".

In an economy which is planned in a bureaucratic and centralised fashion, it is the central authorities ("some organ of central government", as Dobb[64] puts it) who arbitrarily decide the rate of investment which determines the amount of real consumption by the masses. Once again, sacrifices are imposed without the victims being asked their views and without obtaining their *prior consent*. Such a system of management is contrary to the principles of socialism; and, furthermore, it leads to economic results which are inferior to those of a more democratic system of management. It entrusts controlling power over the social surplus product exclusively to the central political, economic and military administration. It thereby gives this central administration the power to dominate and subordinate the whole of society. What the Soviet Communist Party nowadays calls, in hardly Marxist terms, "excess in the personality cult", is merely the ultimate culmination of this sort of arbitrary power of the bureaucracy over the economy and the whole of society.

Inevitably, in conditions where shortage of goods still prevails to a marked degree, such a concentration of the social surplus product in the hands of a central administration implies the conferring of substantial privileges on its members: "Thus while the decision between consumption and investment out of the deducted surplus value is the crucial one for the rate of development of an economy, it remains true that whoever makes the decision would be in a *privileged consumption-position* whatever be the direction of his decision. This position of being the *privileged* consumer follows directly from the strategic role that the persons who make the decision occupy in an economy."[65]

The revolution effected by socialism in the economic and social struc-

ture implies that decisions aiming at the devotion of part of the resources available for potential current consumption to the development of the productive forces must be taken by the mass of those concerned, in person. In contrast both to capitalism and to bureaucratic planning, these sacrifices thereby become *freely-agreed sacrifices.*

This may in some cases mean a growth rate lower than the optimum, though this is not at all certain.* But even in such cases, the mistake made is most educative, and will not soon be repeated. Only in a system of bureaucratic planning, exempt from all public discussion and frank criticism, could such crying mistakes of economic policy as were committed in the agricultural sphere in the U.S.S.R. between 1928 and 1953 be persisted in for twenty-five years, without being corrected.

Experience has thus already settled the question. On the average and in the long run, socialist democracy makes possible not only more harmonious but also faster growth of the economy than bureaucratic planning.

Planned economy and market economy

The necessity of a transition period follows precisely from the fact that on the morrow of the abolition of capitalism, *society is still living in a situation of relative shortage of consumer goods.* The allocation of consumer goods during the epoch of transition from capitalism to socialism must therefore be effected essentially through exchange, that is, through buying and selling.† Consumer goods continue to be commodities. Leaving aside the social wage, the labour force is essentially paid in money. A huge monetary sector therefore continues to exist in the economy.

Some writers have seen in this survival of money and commodity economy in the U.S.S.R. the prime source and cause of its bureaucratisation. This is, for instance, the view taken by A. Pannekoek and by

* In *Principles of Human Relations,* Norman Maier shows that the working out of decisions by group discussions is both possible and effective, that it makes possible the fixing of realistic aims, and that the results are usually better than those obtained by the authoritarian method. It is of little significance that Maier's study is concerned with helping capitalism to function better, not to get rid of it. What he shows tells against his purpose, since the same considerations argue in favour of the abolition of the "closed areas" of management decision reserved to the bosses.[66]

† Cf. Engels: ". . . the 'working people' remain the collective owners of the houses, factories and instruments of labour and would hardly permit their use, at least in a transitional period, by individuals or associations, without compensation for the cost. Just as the abolition of property in land is not the abolition of ground rent but its transfer, although in a modified form, to society. The actual seizure of all the instruments of labour by the working people therefore does not at all exclude the retention of the rent relations."[67]

Bordiga,* who argue strongly for abolition of money as soon as the means of production are socialised.[68] This idea mixes up cause and effect. N. Bukharin's views[69] were very close to this ultimatist idea and to some extent fathered it.

The survival of money economy and market economy is a consequence, not a cause of the relative shortage of consumer goods. The distortion or degeneration of the state and the economy on bureaucratic lines results in the last analysis from the same inadequacies in the degree of development of the productive forces. By abolishing money economy and market economy one abolishes only the barometer, not the frost itself. The "certificates" or "labour-tokens" which would take the place of money would merely be ration-cards—and, like ration-cards, these "tokens" would soon start circulating, even if the law were to forbid it.

Consumers' tastes and needs are different. One man would willingly surrender his milk ration in return for an extra ration of tobacco; a mother would give up her meat ration to get a double ration of milk for her children. This circulation of the "tokens" would be stimulated by speculation, which inevitably arises in a situation of shortage. Soon, as on the Continent of Europe during the Second World War, a "cigarette standard" or a "bread standard" would come into being, in place of the accursed "gold standard" or "paper money"; in a richer society, it might be an "electric-light-bulb standard". As the use of such media is clumsier, less flexible and more complicated than that of bank notes, the ordinary worker would find himself a good deal worse off than in the days of the barometer. Especially would he find that he was being more easily cheated by traders.

The existence of a market for consumer goods is nowadays generally accepted as a lesser evil for the transition period.† But what does it imply where capital goods are concerned? How will the prices of these goods be fixed? How will economic planning fit in with commodity production and market economy?

In the history of socialist ideas this question has been answered in two diametrically opposite ways. One has confined itself to the sphere of theory, while the other triumphed in practice for 25 years. The first answer was that given by Professors Taylor, Oskar Lange, Hall, Lerner, Dickinson, etc., set out most clearly by Lange in his work *On The Economic Theory of Socialism*, and expounded in 1956 by the Polish Professor W. Brus.[71] The second answer was given by the practice of

* In other parts of his pamphlet, Bordiga nevertheless recognises the necessity of a survival of market economy during the transition period, but only until the time when "society controls [?] all its products".

† Marxist writers so different as Kautsky, Lenin, Vandervelde, Trotsky, Stalin and Otto Bauer have accepted this necessity.[70]

Soviet planning in the Stalin epoch and the doctrine which inspired it (or tried to justify it).

Taylor, followed by Lange and the other writers mentioned above, started out from the "supreme" objection to socialism formulated by the neoclassical economists of the marginalist school, namely, that it would be "impracticable" because it would make impossible any economic calculation which presupposed a market. At the beginning of this century, however, such economists as Pareto and Barrone showed the fallacy of this view.[72] The marginalists then prudently withdrew to a second line of defence: economic calculation would be possible under socialism, in theory, but not in practice, because it would imply the simultaneous solving of "millions of equations".*

Taylor and Lange reply to this objection that it arises from a confusion regarding the nature of prices. It is true that the formation of prices results, on the market, from "decisions" made independently by thousands of consumers and producers, they say. But, in practice, every consumer and every producer behaves at any given moment as though the prices confronting him were immutable data (except in a few places, such as the Stock Exchange, where permanent and universal haggling goes on). This is what Lange calls the *parametric function of prices.*[73] The latter end by changing only as the ultimate result of thousands of reactions dictated by the given prices.

Now, Taylor and Lange go on, there is nothing to stop the planning organs from working in exactly the same way. They would start from historically-given prices. These would have to be treated as immutable data by the heads of enterprises and by the consumers. If these prices were not "real" (if they did not correspond to "marginal value" as these writers put it, or to a "price of production", as we should say), phenomena either of shortage or of over-production would appear; these would encourage increased production of the goods whose prices were in excess of "marginal costs" and reduced production of those whose prices were below these costs, and so lead to price-reductions in the former instance and price-increases in the latter.[74] After a few adjustments, equilibrium prices would be established, just as happens on the capitalist market.†

This solution, which implies the use of pseudo-competitive procedures, is ingenious and harmonious, but it suffers from several serious weaknesses.

The successive and continual adjustments—as productive processes change, as well as consumers' demands, the "equilibrium prices"

* Today, in the age of electronic computers which carry out thousands of operations *per minute*, this objection makes us smile.

† More precisely, as happens under petty commodity production. In a capitalist economy, it is fluctuations in profits and capital that determine the formation of prices.

would be altering all the time—would always be made *after the event*, which would mean considerable waste and losses. When the prices of perishable goods had been fixed at too high a level, the goods would have perished before the price-changes had been carried out. When the prices of raw materials had been fixed at too low a level, they would have been wasted in the manufacture of certain goods; these prices would not be raised until the mistake had been perceived.

Actually, a system of prices like this, guided by the market, would reproduce a number of negative features of capitalist economy. In a comparatively under-developed country, all investment plans which demand a lot of machinery would be systematically held back in favour of projects requiring plenty of labour and little machinery, because the latter would be "too expensive". The rate of economic growth would be nearer that of a capitalist economy than that of the U.S.S.R. and other countries with a socialised economy.

Furthermore, the investment decisions taken by enterprises, and calculations of the volume of productive capacity currently being used, would suffer from the same lack of information, and would tend to give rise to the same cumulative movements as are characteristic of the decisions taken by capitalist businessmen.[75]

Planning implies a *choice* between various possibilities, a choice of priorities. The fixing of "equilibrium prices" is only a means, not an end. The achievement of certain high-priority aims—chosen not arbitrarily but with the consent of the majority of the working people—may make necessary the abandonment of certain "equilibrium prices" or certain market mechanisms. The existence of a mass of unemployed in an under-developed area of a large country may be seen as a factor of social waste and misery graver than the "sale" of certain goods "below" or "above" their real prices. It may happen that the "market mechanisms" (reduced rates of interest, subsidies, etc.) will not be adequate to attract enterprises into this area. In that case it would be preferable to determine the location of enterprises or to fix a volume of investment through central decision and to subsidise the work thus undertaken. But without autonomy of decision by enterprises in the sphere of investment there is no true market of *capital goods*. And without such a "market" there is no "spontaneous" formation of prices for these goods. In fact, imperative planning and the socialisation of the means of production restrict very much this autonomy of decision by enterprises so far as the total amount and the general direction of investments are concerned.

The whole superiority of planned economy as compared with capitalist economy lies precisely in the fact that it substitutes the concept of the maximum overall efficiency of investment by the community for the concept of maximum profitability of each separate enterprise.[76] The former concept, while making possible a higher growth-rate than

the latter, does not necessarily imply a sum of profitabilities of which *each one* is higher than under the latter concept; it may indeed imply a lower degree of profitability, and even work at a loss, in certain enterprises.

What survives from Taylor and Lange's argument is the necessity for the planning authorities to draw up regularly *tables of real costs of production* (averages, and also costs in particular enterprises), following the procedure these writers suggest. But the lists of current prices of capital goods (which are imposed on the enterprises, and from which follow the prices of consumer goods to be paid by consumers) may vary momentarily, or in the case of certain goods, from these tables, if such variations are unavoidable in order to realise certain aims of the plan.

If Taylor and Lange err through "doctrinaire" exaggeration in the matter, the practice of Soviet prices in the Stalin era certainly erred in the opposite sense, through a crude pragmatism which made the entire price-structure obscure and led to the worst absurdities. At the start, the Soviet authorities fixed "real prices" to which they added, at rates varying according to the particular goods, a "turnover tax"—or from which they deducted a "subsidy". The former provided the financial resources for accumulation, at the expense of the consumers, while the latter encouraged the use of production methods with a high intensity of capital.

As a result, however, of currency inflation, of the upheaval in agriculture, of successive and arbitrary alterations in prices, the central authorities themselves lost sight of the relation between the "directive prices" laid down by Gosplan and the real costs of production. Serious distortions appeared, especially in the agricultural sphere, and made practically impossible the calculation of the relative profitability of different investment projects. These distortions inflicted considerable losses on Soviet economy.*

The rational relation between plan and market has to be placed half-way between these two extremes. The plan must make full use of the market, without ever yielding passively to it. It must if it can, guide the market by means of incentives; it must, if need be, coerce the market by means of injunctions, every time that this is required for the realisation of its priority aims, as freely decided by the working people.

Certain theoreticians claim that, because they leave consumers and enterprises the illusion of freedom of choice, incentives are always preferable to injunctions. This argument sometimes has dubious psychological value. Does the consumer really react differently to a sudden price-increase of 100 per cent and to the re-establishment of

* We quote some examples in Chapter 15.

rationing for the product concerned? This argument implies, moreover, an inacceptable surrender of the criterion of efficiency and social interest. Whenever the use of incentives would delay the solution of an important economic or social problem and thereby reduce the well-being of the masses, there must be no hesitation in the use of injunctions. It is well appreciated that the efficiency of such injunctions, both as regards distribution of labour and as regards private consumption, is very much open to doubt. In this sphere, abuse of such methods risks bringing the planner to the brink of "civil mobilisation" and forced labour, methods which are incompatible with socialist democracy and planning based on consent by the majority of the working people.

Planning techniques

The transition period is above all the period of *planned growth*. We must now define the methods of planning and the general economic problems to which this growth gives rise.

Planning is a technique for co-ordinating economic activities in order to achieve certain priority aims. Socialist planning pursues the aim of increasing the socialised productive forces so as to ensure an increasing abundance of goods and services for the citizens, to ensure thereby the all-round development of their personalities, and to bring about, as a long-term prospect, the withering-away of market economy, classes, social inequality, the state, and the division of labour. Socialist planning presents problems on different planes: that of the economy as a whole; that of the various branches of industry (and sectors of consumption); and that of particular enterprises and households.

The key problem of planning is the allocation of existing resources so as to ensure the desired rate of growth, in order to attain the aims which have been selected as having priority. Intrinsic (objective) variables can be chosen: either the volume of employment, or the volume of production, the volume of consumption, the increase in the kind of production desired, or several of these factors taken together.

In an economy subject to chronic unemployment or under-employment, the rate of growth of the necessary production can be worked out on the basis of an average increase in productivity taken as already given. If the latter increases by 3 per cent per year, if the occupied population increases by 1 per cent, if 20 per cent of the occupied population suffers from unemployment or under-employment which has to be absorbed, and if this aim has to be achieved within ten years, then the annual increase in production must be fixed, at least, at 6 per cent ($3+1+\frac{2}{10}$), which will increase annual employment by 3 per cent. Moreover, it is possible to combine the aim of full employment with that of a definite increase in domestic consumption (by the producers): for instance, doubling the volume of this consumption in

ten years. Suppose that in order to increase income by one unit we need to invest productively 3 net units. A growth-rate of 6 per cent for the national income therefore implies an investment rate of 18 per cent.* Suppose that unproductive consumption cannot be reduced below 10 per cent of current income, and that domestic consumption by the producers accounts for 75 per cent of the national income at the time when the plan comes into operation. Domestic consumption will thus have to be increased from index 75 to index 150.

Now, an annual growth-rate of 6 per cent will give us at the end of ten years a national income of 180. If domestic consumption increases to 72 per cent of this product (100–10–18), we shall have attained only index 130, instead of index 150. It follows, therefore, that to achieve at one and the same time the objective of full employment, mentioned above, and the objective of doubling domestic consumption, a higher annual growth-rate is needed, namely, 7 per cent. To double domestic consumption in ten years by reaching an annual growth-rate of 7 per cent, one cannot raise the investment rate above 18 per cent, if unproductive consumption absorbs 10 per cent of current income. In fact, a growth-rate of 7 per cent will bring income at the end of ten years to index 207·5, which implies index 150 for domestic consumption, if the latter takes 72 per cent of income.

The aim is thus to be attained either by increasing annual employment by 7 per cent instead of 3 per cent (if the existing stock of capital permits a proportionate increase in production), or by increasing productivity by 4 per cent instead of 3 per cent (if technological progress makes it possible to reach this result thanks to the increase in the *volume* of investment, which grows from index 15 to index 25·3 after five years and to index 37·3 after ten years, instead of growing to indices 24·1 and 32·2 respectively, as had originally been planned), or else by combining these two methods. The second would be preferable, since the first implies an increase in income per head of persons employed which is lower than had been envisaged, and since it risks causing a shortage of labour, if potential reserves (immigration, unproductive jobs, non-working housewives, etc.) are not available.

These calculations relate to the great masses of annual product and annual income, domestic consumption, public consumption, rate and volume of investment, employment, occupied population, increase in average productivity, ratio between existing stock of capital and current

* Cf. Kalecki: "To maintain the degree of utilization of equipment the capacity of the latter must expand proportionately to the increase in working population and productivity of labour. This gives us the clue to what should be the level of private investment. *Private investment must be at a level adequate to expand the capacity of equipment pari passu with the increase in working population and productivity of labour, i.e. proportionately to full employment output.*"[77] In our example, productive capacity must thus increase by 6 per cent.

income, ratio between net investment and gross investment,* etc. They are indispensable as basic calculations. They at once reveal the difficulties that have to be overcome (in the example we have chosen —achieving the annual increase in productivity). They determine the extent of the relative sacrifices that the working people would have to accept. They must therefore be the subject of previous public discussion, with scope for expression of critical and contradictory views. In this way, the masses will be able to choose in full awareness the variant, which seems to them the best, so that the people's sacrifices may in truth be freely agreed, with full knowledge of what is involved.

But this fixed framework must now be filled in with a more and more concrete content. After deciding on priority aims which involve both an overall growth-rate and a growth-rate for consumers' expenditure, one can translate these two rates into the various categories of consumer goods and capital goods. But they do not at all imply an equal rate of growth for all branches of industry.

In the nineteenth century, studying the evolution of family budgets of Belgian workmen, the Prussian statistician Engel discovered that consumer expenditure was subject to certain statistical laws. The more income increases, the more the share of it devoted to buying food declines. Among these expenses for food, the share of what are called "rough" or basic products (bread or other basic cereals, potatoes, pork meat and fat, etc.) declines as compared with what are called "noble" products (dairy products, fruit, sugar, beef and veal, etc.). The validity of this law has been confirmed by a threefold test: the differences in the structure of consumer expenditure, in a given period, between different classes of society; the differences in the structure of consumer expenditure in a particular country during the successive phases of economic evolution; the structural differences in consumption in different countries which, at a given moment, are at different levels of relative wealth.†

Thus in 1956, expenditure on food represented the following percentage of consumers' total expenditure, at current prices:

	%		%
Sweden	31	Finland	38
Norway	32	Italy	46
West Germany	32	Portugal	50

* The rate of growth of the capital goods sector (department I) determines the rate of growth of *gross* investment, since the total volume of production in department I serves *both* to replace capital goods currently used up and to create *additional* capital goods (net investment).[78]

† One must be careful not to attribute *absolute* value to this statistical law. Special circumstances (e.g. persistent shortage of durable consumer goods) may entail a relative level of food expenditure which is higher in a richer country than in one less rich (e.g., in 1957, comparatively higher level in Czechoslovakia than in Bulgaria).[79]

U.S.A.	26	Austria	37
Denmark	28	Holland	37
Belgium	30	Eire	38
Britain	33	Yugoslavia	50
France	37	Greece	58[80]

Furthermore, between 1938 and 1956, consumption per head of cereals and potatoes, on the one hand, and of meat, on the other, evolved as follows (in percentages):

	Cereals and potatoes	*Meat*
U.S.A.	−25	+29
Belgium	−11	+31
France	−13	+31
Finland	−14	+21
Greece	−6	+24
Sweden	−18	+8
Italy	−8	+7, etc.

Finally, between 1950 and 1957, expenditure on durable consumer goods increased much more substantially in Western Europe than total expenditure (per head of population and at constant prices): *

	Total consumers' expenditure	*Expenditure on durable consumer goods*
France	+32	+127
Austria	+40	+110
Italy	+30	+64
Britain	+11	+55
Denmark	+3	+51
Greece	+38	+49
Norway	+15	+43, etc.[82]

On the basis of these data, while avoiding excessively mechanical transpositions and using a variable scale of coefficients of the elasticity of demand for different products, it is possible to foresee what the structure will be of an increased volume of consumption at the end of the period envisaged.[83] From this can be deduced the varying rates of investment for each branch, the problems of transfer of labour from one branch to another, and also the specific structure of the means of production that heavy industry will have to supply to consumer-goods industry. The coefficients of expansion of the different branches of industry producing capital goods will have to be fixed, so that the initial proportions may be expanded according to a whole series of growth coefficients, variable but co-ordinated, covering all parts of the economy.

* Here is a recent application of Engel's law: after three years of exceptional economic progress, Yugoslav families spent in 1959 only 43 per cent of their incomes on food, as against 50 per cent in 1956, and they spent over 10 per cent on durable consumer goods, as against 4 per cent in 1956.[81]

For this growth to be proportionate, that is, for bottlenecks and major imbalances to be avoided, a two-fold check is needed: a check in terms of exchanges between industries and a check in terms of material balances.

The ingenious system worked out by the economist Wassili Leontief on the basis of the work of Gosplan in 1924, applied first of all to the U.S.A.[84] and rejected by Soviet experts until 1958, enables one to determine the relations between the major branches of the national economy. It has since been applied to a considerable number of countries.[85] Leontief's table relates to eleven branches of industry, to agriculture, to transport and to "households". These branches are arranged horizontally and vertically so as to form a matrix. This is an *input-output* table, in which the horizontal figures show what each of these 14 branches sells to the 13 others, while the vertical columns show what resources each branch buys from the others. The total at the end of each horizontal line gives us the value of production less the value added; the total at the bottom of each vertical column gives us the value of "intermediary purchases".

To simplify the work, Leontief's *input-output* table starts from the hypothesis that the relations between the different branches remain stable, that is, for example, that the increase in steel production by 10 per cent necessitates an increase of 10 per cent in the coke supplied to this branch by the "non-metallic minerals" industry. Technical coefficients are thus worked out which determine the mutual relations between all branches of the economy. Starting from the above-mentioned aims of the plan, one thus has to pay attention to the increase of production in all branches, so that these coefficients may be respected. In fact, the input-output calculation is simply an enlargement of the conditions of equilibrium in Marx's formulae of expanded reproduction. The two departments have been replaced by fourteen, which complicates the picture but makes it possible to bring it closer to reality.

Suppose that annual production takes the form of the following formula of expanded reproduction:

$$4{,}000\,c + 2{,}000\,v + 2{,}000\,s = 8{,}000\ \text{I}$$
$$2{,}400\,c + 1{,}200\,v + 1{,}200\,s = 4{,}800\ \text{II}$$

We know that the condition of equilibrium demands that department I sell to department II the same value that department II sells to department I; in the case which interests us, for example, 2,400 *c* II + 600 *s*. acc. in *c* II = 2,000 *v* I + 1,000 (*s*–*s*. acc. in *c*)I. Let us now divide the production of capital goods into two sectors: production of fixed capital (A) and production of raw materials and power (B). Let us similarly divide the production of consumer goods into two sectors: production of current goods (C) and production of

luxury goods (D); assuming, to simplify matters, that unproductive consumption in each sector relates only to the last-mentioned category of goods. The value of the production of these four sectors will then present itself in the following form:

A:	1,000 c +	500 v +	500 s =	2,000	A
B:	3,000 c +	1,500 v +	1,500 s =	6,000	B
C:	2,000 c +	1,000 v +	1,000 s =	4,000	C
D:	400 c +	200 v +	200 s =	800	D

The distribution of surplus value in each case being as follows: 50 per cent to c; 25 per cent to v; 25 per cent to unproductive consumption.

The following table shows, horizontally, what each sector sells to the others, and vertically, what it buys from them. For the system to be in equilibrium, the horizontal totals must correspond to the vertical ones. Where two figures appear in the same square, the first shows the requirements of simple reproduction, the second those of accumulation (expanded reproduction):

	A	B	C	D	Total	
A	250+ 62·5	750+187·5	500+125	100+ 25	2,000	8,000 I
B	750+187·5	2,250+562·5	1,500+375	300+ 75	6,000	
C	500+125	1,500+375	1,000+250	200+500	4,000	4,800 II
D	125	375	250	50	800	
Total	2,000	6,000	4,000	800	12,800	
	8,000 I		4,800 II			

The difference between this table and Leontief's consists in the fact that it compares the *total value* of all the commodities bought and sold, whereas Leontief's compares only the value of the unfinished commodities bought by each sector, not taking into account the "value added", which appears in his table in the form of a certain number of hours of labour.

The input-output table can be made still more complicated and realistic by dropping the assumption of fixed coefficients. Changes in the input-output ratio can be envisaged for certain branches, or certain categories of activity. Thus, the future power balance can be based on the hypothesis that fuel-oil and natural gas will increasingly take the place of coal and electricity, and electricity that of coal. The coefficient linking the electric power industry with the steel, metallurgical, etc., industries will thereby be increased, while that linking the coal industry with these branches will be reduced.

For a large number of products, especially raw materials, machinery and power, *material balances* can be worked out, which provide a check on the different objectives of the plan and should show whether it hangs together. As these balances are drawn up in *physical terms*,

whereas the input-output table is drawn up in terms of *value* (except for the input of households), this provides a useful check on the internal cohesion of the plan. The total sum of electricity, or of machine tools, or of cement used in each branch, should correspond to the total amounts available (current production and fluctuations in existing stocks + balance of exports and imports).

New production relations and the socialised mode of production

There remains the bringing down of all these data to the level of the separate enterprises. Various methods could be used. One could determine the physical objectives to be attained, while leaving the enterprises the flexibility needed to reach these objectives in the best conditions of profitability (keeping within the framework of prices for capital goods regarded as fixed for a certain period of time). One could lay down objectives for the enterprises in terms of value to be produced, leaving them freedom to distribute this value over various types of product. Or, finally one could lay down minimum overall targets in value terms, and targets in physical terms for *some* products of high priority, while leaving them freedom to choose the rest in accordance with the highest profitability.

If the fiscal system (of allocating the income of the enterprise) is sufficiently strict to prevent any excess in investment within branches, or enterprises, which are particularly profitable, and yet sufficiently flexible to give the mass of the producers in each enterprise a direct interest in the objective results of their work, this last-mentioned formula is undoubtedly to be preferred.[86]

It is clear that there is no absolute rule in this matter, outside time and space. Experience has nevertheless shown that to lay down detailed and complete production targets for enterprises, in terms of physical quantity, of value (cost of production), of materials to be used, and of income, merely confronts them with insoluble tasks and undermines the principle of the plan more than would a certain degree of freedom of action for these same enterprises.*

The conquest of power by the proletariat, the socialisation of the major means of production and exchange, the opening of a phase of transition to socialist society—these enormous social upheavals fail of their purpose to some extent if they are not accompanied by radical changes in the atmosphere in the enterprise. The "social question" inherited from capitalism is not limited to an excessive limitation in the workers' effective consumption capacity. Nor is it to be solved by the mere *juridical* abolition of private ownership of the factories, banks and power stations. Its solution implies also the progressive

* Cf. the formula of the Polish Professor Bobrowski: "The number of decisions taken by a planning organ . . . is inversely proportional to their quality and efficiency."[87]

abolition of the hierarchical structure of the enterprise, the progressive abolition of the *social* division of labour—the division between those who accumulate and those who produce, between those who give orders and those who obey them—the progressive abolition of *alienated labour*, work carried out on other people's orders and for the benefit of others, and for this reason done mechanically and looked upon as *time lost out of one's life*.*

The definitive emancipation of labour—which is at the same time its negation as labour, in the traditional sense of the word, its transcendence by an infinitely richer and more varied form of human activity—is possible only in the final phase of socialist society, when the familiarity of abundance of goods and services will have completely changed man's social consciousness, and the extent of leisure, joined with the raising of the average cultural level of the masses, will have made it possible for all citizens to undertake, turn and turn about, the managerial functions in social economy. But while this process will not be *complete* until that moment, it must be *begun* as soon as possible after the overthrow of capitalism. More precisely: the *production relations* are not changed so long as the private employer has merely been replaced by the employer-state, embodied in some all-powerful manager, technocrat or bureaucrat. They are not changed until the various groups of workers start to have a *real, day-to-day* (and not merely formal and juridical) control over the management of the enterprises, the working out and carrying through of the plans, and the social surplus product created within the enterprise. The classical solution offered in this connection both by the experience of the labour movement and by socialist theory is the succession of phases: "workers' control" (i.e. supervision of the management by the workers); workers' participation in management; and workers' self-management.†

The problem of the management of enterprises in the epoch of transition between capitalism and socialism is certainly a complicated one. A simple formula is not adequate to solve it. Two parallel dangers appear: that of bureaucratisation and that of return to the anarchy of the market. These two dangers are by no means imaginary ones.

While it is possible to accuse of hypocrisy those who make a pretext of the bureaucratic danger in order to refuse or to delay the overthrow of capitalism (which combines with extreme bureaucratisation of big firms the hateful enrichment of their owners at the expense of the community), it is not to be denied that the concentration of all economic resources in the hands of the state involves the risk of

* See Chapter 5.

† "The communal régime once established in Paris and secondary centres, the old centralised government would in the provinces, too, have to give way to the self-government of the producers", wrote Marx.[88]

maintaining or even extending conditions of social inequality. The fact that this state declares that it rules "in the name of the working class" provides only a purely juridical consolation.*

When the workers are systematically eliminated from any participation in the management of enterprises, when inequality of income is increasing instead of decreasing, as was the case in the U.S.S.R. in the Stalin era, things are moving away from socialism rather than towards it. If, on the other hand, all enterprises are given an extensive, if not complete, autonomy, and encounter each other on the market as competitors free to seek the maximum income, then collective and egalitarian sharing of the income *within the enterprise* will not prevent social inequality and economic wastage from spreading *within the economy as a whole.* The factories which are technically best equipped and the most advanced parts of the country, will inevitably "exploit" the backward enterprises and less developed areas. *Any exchange on an equal footing between groups whose economic power is unequal increases the inequality between them and gives rise to inevitable economic fluctuations.*

The synthesis between the imperatives of central planning and the need for extensive self-management of enterprises by their workers must be sought along the lines of the rules set out above. But the requirements of workers' democracy and of constant improvement in consumption by the workers are also the requirements of economic efficiency. The more the productive forces develop, the more complex planning becomes, and the more it requires initiative, checking and constant revision of the plan by millions of citizens, both as producers (in order to increase the overall efficiency of the enterprises) and as consumers (in order to bring production programmes as near as possible to the needs and wishes of the people).

It will, moreover, have been observed that planning does not at all imply planning the expenditure of each consumer. On the contrary, it gives him a freedom of choice which is all the greater as the range of products is more complete. Unexpected changes in consumer demand may imply changes in the proportions envisaged by the plan. The latter will need continual adjustment. Questionnaires, and other kinds of inquiries, regular and on a large scale, to ascertain domestic

* "The Soviet Press relates with satisfaction how a little boy in the Moscow zoo, receiving to his question 'whose is that elephant?' the answer, 'the state's', made the immediate inference: 'That means it's a little bit mine too.' However, if the elephant were actually divided, the precious tusks would fall to the chosen, a few would regale themselves with elephantine hams, and the majority would get along with hooves and guts. The boys who are done out of their share hardly identify the state property with their own. The homeless consider 'theirs' only that which they steal from the state. The little 'socialist' in the zoological garden was probably the son of some eminent official accustomed to draw inferences from the formula: *'L'état, c'est moi'*."[89]

wants and systems for passing on the wants of consumers not merely by this sampling but also through local initiative, will make it possible to render more exact provisions for the future than those which were originally based on merely statistical forecasts. The more the plan coincides with the real tendencies of consumption, the less will the survival of the market in the consumer goods sphere give rise to disturbances in the economy as a whole.

The perfecting of electronic computers has now facilitated the making of a series of calculations which enable detailed problems to be solved with mathematical exactness. It is especially within the individual enterprise that the choice between different variants can be settled in this manner. Operational research (linear programming) makes it possible to determine the optimum variant among various combinations of factors, by considering each time only one of these factors as a variable.*

In Sweden, for instance, the optimum utilisation of hydro-electric power stations during a period of thirty years was determined by an electronic machine, taking into account such various factors as weather forecasts (duration and severity of the winter freeze-up), the level of water in the reservoirs, the capacity of the turbines, the needs of the timber, paper and steel industries, the amount of timber floating down the rivers, the export of electric power to Denmark, and even the amount of water needed by the salmon! Over 3,000 different variants were envisaged.[91]

Agriculture and distribution in the transition period

The hardest problems to be solved during the period of transition from capitalism to socialism are those of agriculture and distribution. Large-scale capitalist production creates the pre-conditions for socialising and consciously planning the economy. But the unequal development of industry and banking, on the one hand, and of agriculture and distribution (including certain service sectors) on the other means that a capitalist sector which is thoroughly ripe for socialisation is combined with a sector in which *petty commodity production*, the small "independent" enterprise, is still predominant (whatever may be the ties of subordination by which big capital and the monopolies subject these enterprises and exploit them, often rendering their "independence" purely formal). It is rational and efficient to socialise a factory employing 10,000 wage-earners. It is neither rational nor efficient to socialise 10,000 small shops or small farms, whose owners employ no other labour than the unpaid labour of their own families.

* This technique was first worked out by Koopmans (*Activity Analysis of Production and Allocation*, Cowles Commission Monograph 13) to find the most rational route to be taken by empty ships sailing between a number of ports. when the total cargoes to be carried each month from each port were known.[90]

Besides this economic obstacle there is a social one. The working class and the great majority of the wage and salary earners are interested in seeing suppressed private property in the major means of production and exchange. Their organisation and their class-consciousness are the chief driving-force of social transformation. The class of small producers and small proprietors (or small farmers), which predominates in the sectors of agriculture and trade, is not organised but scattered. It is not moved by collective interests but by fierce individualism (except for agriculturalists in the most backward parts of the world, who have not yet cut the umbilical cord of primitive village communities). If this class is often revolutionary, this is only to the extent to which it aspires to a kind of private property which the semi-feudal structure of the given country denies it.

The difficulty is further increased by the extreme complexity of relations of production and exchange in these two sectors, in each region of the world if not in each important country. Everywhere we find coexisting, on the same territory, model capitalist farms, small, independent family farms, wretched farms occupied by poor peasants who are half wage-earners and half farmers, or even the destitute possessing not the smallest bit of land. Innumerable combinations and intermediate forms are also to be met with. The situation is no simpler in the distributive sector, where there coexist, at least in the most advanced capitalist countries, large capitalist stores, capitalist "chains" of small shops, well-established family firms, small shopkeepers who are in practice wage-earners employed by the trusts, co-operatives, and wretched small "businessmen" who often earn less than the minimum wage of an industrial worker, and toil twelve hours a day to get it.

A single solution valid for all these diverse situations cannot be found. But the two principles from which any solution ultimately has to start are these: no socialisation (whether *de facto* or *de jure*) of enterprises is justifiable unless the technical conditions make possible a higher output this way than private enterprise can get; and no socialisation is justifiable unless the small proprietors (small producers) agree to it, either from conviction or from material interest, or (what is, of course, the ideal situation) from both motives at once.*

It follows that the structure of agriculture and distribution will

* Cf. Engels: "When we are in possession of state power we shall not even think of forcibly expropriating the small peasants (regardless of whether with or without compensation), as we shall have to do in the case of big landowners. Our task relative to the small peasant consists, in the first place, in effecting the transition of his private enterprise and private possession to co-operative ones, not forcibly but by dint of example and the proper social assistance for this purpose. And then of course we shall have ample means of showing to the small peasant prospective advantages that must be obvious to him even today."[92]

inevitably be complex and "plural" in most countries on the morrow of the overthrow of capitalism, except perhaps in the most backward countries. Large estates worked, already under the old régime, by agricultural wage-workers who are organised in trade unions and class-conscious, can be socialised, together with the big stores. Small peasant owners of land and small traders will be grouped into co-operatives of various kinds, in order to increase their output and their income, while leaving them in the position of individual owners and entrepreneurs. Other small proprietors, and especially small non-owning farmers can be grouped, with their full consent, into producers' co-operatives. Finally, a policy of distributing the land of the semi-feudal landowners (or belonging to banks, mortgage firms, etc.), together with a policy of cheap credit, can, on the contrary, transform into small proprietors "entrepreneurs" who, under the old régime had to hire their principal means of production (or exchange).

The integration of these disparate sectors into the planned economy can be effected fundamentally only through the market. The only real alternative solution is coercion, the ineffectiveness of which has been fully demonstrated by history (especially by the ordeal of Soviet agriculture between 1929 and 1953). The only way to make the peasant interested in increasing output and lowering costs of production is to make these activities profitable to him.[93] The only means of interesting the small trader in a real rationalisation of distribution is to make it possible for him to earn more that way. In the one case as in the other, increasing output and rationalising may mean transferring labour from agriculture and distribution into industrial production or other sectors. If, however, this transfer takes place neither through coercion nor through the pressure of a fall in the standard of living, but instead by the attraction of higher pay, more civilised working conditions and a more comfortable standard of life, it corresponds both to the interest of society and to that of the individuals concerned.

The more the productive forces develop, the more the socialised sector of the economy is consolidated, then the more the progressive socialisation of agriculture and distribution can be carried out through competition between the petty production sector and the socialised sector, which will continually improve the standard of living of the small producers—and distributors—themselves. The latter will receive more and more consumer goods from the planned sector, but will at the same time have to face harder and harder competition from mechanised and specialised agricultural enterprises, with big stores, co-operatives and self-service establishments better equipped than they are. Interest and experience will make only a matter of time the grouping of small agricultural and commercial enterprises into co-operatives which will enable them to adopt more and more efficient techniques.

A mixed economy?

Various theoreticians, some socialist and others not, have argued for a mixed economy for the period of transition to a more "humane" economy. The nationalisation of a few "key" sectors of the economy should be combined, they urge, with the retention of private property in other important sectors of industry.[94] A solution like this would, in their view, make it possible to keep to the minimum the social costs of planning, without detracting from the economic effectiveness.

Experience shows, however, that this view comes up against an insuperable stumbling block. Either the extent of the nationalisations is slight, so that the economy is not really "mixed" at all, but basically capitalist, or else it is considerable, and the threat of nationalisation hangs over the other sectors. In the latter case, the economy will not function satisfactorily, because the non-nationalised sectors carry out disinvestment, and basically there is no planning.[95]

A system based on private property and private profit cannot function adequately unless the capitalist "rules of the game" are respected. It can resort to *supplementary* techniques of "planning", especially where it is a question of nationalising losses, or of subsidising new (or sick) industries. It cannot in the long run cohabit with important sectors of production, and above all with an overall management of the economy, which are not guided by the criterion of profit.[96]

Actually, the various Western experiments in "planning" (national budgets in the U.S.A., Britain and Sweden; the Commissariat du Plan in France; the Planburo in Holland, etc.) have been restricted to the making of long-term forecasts* so as to *guide* the capitalists, to facilitate their taking of investment decisions in the sectors where profits are surest, (often thanks to guarantees and subsidies by the state). They have neither achieved long-term full employment, nor prevented cyclical fluctuations, nor ensured optimum economic growth, nor prevented the appearance of bottlenecks and serious imbalances.

In fact, private enterprises are not obliged to conform to this *indicative planning*; they are merely asked to follow its advice. When they refuse to do this, the "supplementary" initiative of the bourgeois state does not venture to set up public enterprises which would compete with this defaulting private initiative.[97] On the contrary, it offers the private firms "incentives" (that is, bonuses for idleness and incompetence!) with a more and more lavish hand, in order to encourage them to follow its advice. The nationalised sectors, regarded as means of subsidising the private sector (especially through their price policy), run very largely by representatives of the private sector,† neglected as regards investment (which has to be paid for by "the taxpayers"),

* These forecasts amount, moreover, to mere extrapolations of current tendencies, slightly modified by a few "overall targets".

† See Chapter 14.

can but rarely play the dynamic role assigned to them in theory. Instead of genuine planning, what we have is a half-hearted, clumsy, embarrassed attempt to manage the economy, which often interferes in a contradictory way, and whose balance of achievement is most "positive" in periods of war economy and of reconstruction, that is, in periods of acute shortage.[98]

Effective planning of the economy, and *a fortiori* the economy's optimum growth, are attainable only if the autonomy of decision of the key enterprises (determined by private ownership) is abolished, if the volume of investment is fixed overall and distributed among the sectors and enterprises in accordance with the targets to be achieved, even if that means that during an entire period sectors in which "profit" is reduced to little or nothing are given priority development as compared with sectors in which profit is higher. This means that the building of schools, hospitals and comfortable working-class houses has priority over the building of luxury flats, office blocks or "representative" branches of banks. Both as regards private ownership of the means of production and as regards inequality of income (of "effective demand"), radical changes are indispensable if *imperative* economic planning is to be possible and effective. Political power must pass from the bourgeoisie to the working class. The socialisation of the major means of production, distribution and exchange must be carried out.

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CHAPTER SEVENTEEN

SOCIALIST ECONOMY

Mode of production, mode of distribution, mode of life

THE socialisation of the major means of production and exchange brings into existence a new mode of production, no longer based on *private appropriation of the social surplus product*. During the period of transition from capitalism to socialism, however, socialisation of the means of production is still linked with *private appropriation of the necessary product in the form of wages*, of exchange, of the selling of labour-power for a money wage. Furthermore, part of the social surplus product is still appropriated in the form of individual consumer privileges, and under a bureaucratically-deformed régime of the transitional society these privileges may assume very considerable dimensions. Private interest thus remains the basic stimulant of individual economic effort. The economy continues to be a money economy.

From the economic standpoint, the contradiction between a mode of production based on collective ownership of the major means of production and collective appropriation of the social surplus product, on the one hand, and on the other, the private interest which continues to operate as chief driving-force of individual economic activity, is a constant source of friction and contradiction under planned economy.* But even more important than this economic contradiction is the *social* contradiction that follows from it. "Labour", regarded as the full development of all the potentialities of each individual, and at the same time as conscious service by the individual to society, is a concept which in the long run is incompatible with the concept of "labour" as the way of "earning one's living", of ensuring one's means of subsistence, or appropriating, so far as possible, all the goods and services that enable an individual to satisfy his needs.

So long as the economy continues to be fundamentally a money economy, with the satisfaction of the bulk of people's needs depending on the number of currency tokens a person possesses, and so long as, under conditions of relative shortage, rationing by the purse governs distribution, the struggle of all against all to appropriate a bigger proportion of these currency tokens will inevitably persist. So long as the exercise of certain social functions makes it easier to

* See Chapter 15, "The Soviet Economy".

appropriate comparatively scarce goods and services, it is inevitable that the phenomena of careerism, nepotism, corruption, servility towards "superiors" and an autocratic attitude to "inferiors" will remain widespread. The absence of a genuine democracy of producers, consumers and citizens, of strict and untrammelled supervision by them of the activity of administrators and leaders, of the possibility of replacing the latter without coming up against a jointly organised resistance and without having to go beyond legal methods: all these gaps cannot but accentuate the corrupting influence of money in all spheres of social life. The continued existence of money and commodity economy in itself implies the survival of the phenomenon of *universal "mercenariness" of life* which their original appearance give rise to in primitive communities based upon the production of use-values. If, in the economy of the transitional period, access to comfort were institutionalised instead of remaining directly negotiable by means of money, the influence of this "mercenariness" would be indirect rather than direct—which does not mean that it would be any the less. The public discussions which have taken place in the U.S.S.R. about the abuses entailed by the stampede to get university places have told us a great deal on this point.[1]

The authorities and the influential writers who continually declare, in the U.S.S.R. and elsewhere, that it is necessary first and foremost to "create a new outlook", that labour must first become "an individual necessity felt to be such by the individual", before material incentives can be abolished, and the transition made to distribution according to need,* reveal a "voluntarist deviation" and reverse a relationship of cause and effect which is nevertheless quite obvious. It is necessary *first* to see the withering away of money economy through the production of an abundance of goods and services, before the psychological and cultural revolution can fully manifest itself, and a new socialist consciousness bloom in place of the egoistic mentality of the "old Adam". In the era of the transitional society, and *a fortiori* in the U.S.S.R. or China, it is not "capitalist survivals" that give rise to a desire for individual enrichment, but *the everyday reality of distribution rationed by money.* To hope to create, under these conditions, a "communist consciousness" by means of a "struggle against the survivals from the capitalist past" is to undertake a real labour of Sisyphus.

Before the acquisitive outlook of individuals can disappear as the essential driving force of economic behaviour, these individuals must have acquired experience that society has ceased to treat them as Cinderellas and become a generous and understanding mother, automatically satisfying all the basic needs of her children. This experience

* See, for example: A. Lyapin, *From Socialist Labour to Communist Labour*: V. A. Sukhomlinsky,[2] etc.

must have penetrated into the unconscious of individuals, there to encounter the echoes from the primitive-communist past which have never been completely buried by the effects of 7,000 years of exploitation of man by man. This experience must have produced a conscious awareness of the new situation, and, more than that, *new habits and customs*, for the psychological revolution to occur and for the "old Adam" to die and give place to the socialist or communist man of the future.

If Marxists consider that plenty is a necessary condition for the coming of a fully-developed socialist society, it is in this sense and for this reason. The new way of life cannot be born otherwise than from the *integration* of a new mode of production and a new mode of distribution. It is not a matter of preaching socialist morality, but of creating the material social and psychological conditions for this morality to be applied by the great majority as a matter of course.*

Individual wages and social wages

The concept of wages is defined by several features. The three most important are *payment (a price) in money, in exchange* for a quantity of labour (of labour-time) provided; payment which is strictly *limited* by the quantity of labour provided, the exactly-measured *duration* of the expenditure of labour-power; and payment which results from a sale of labour-power that is *forced* upon the seller because it offers the only way whereby he can obtain the means of payment he needs for the consumer-goods to keep him alive. These definitions continue to be valid in post-capitalist society (the transition period between capitalism and socialism), no less than in capitalist and pre-capitalist society, in so far as wages continue to exist, at least as the *predominant* way of remunerating labour supplied either to individual owners of means of production or to the state as collective owner.

The argument according to which a wage-earning class no longer exists once there is collective ownership of the means of production, "because a worker cannot sell his labour-power to himself", is a crude sophism. Collective ownership means ownership by the community, and not ownership by each individual member of the community. A member of a co-operative may well sell a car, his individual property, to the co-operative he belongs to; in the same way, a worker may sell, to the community he belongs to, his labour-power, which is his individual property. The *obligation* to carry out this sale in order to obtain the necessary means of subsistence proves the survival of the wage relationship both from the standpoint of the *form* of the act of exchange (sale for a definite price in money) and of its *content* (the worker sur-

* This is why the view of the Yugoslav theoretician Horvath, according to which a communist society can be based upon the retention of a commodity-money economy is particularly unrealistic.[3]

renders the only commodity he possesses, and of which he cannot himself employ the use-value, so as to be able to acquire other commodities the use-values of which are essential for his continued existence and that of his family, *and which he cannot acquire without exchange*).

Since the beginning of the monopoly capitalist era and the rise of a powerful labour movement in the advanced industrial countries, individual wages are no longer the *only* way in which individual labour is paid for. Alongside them has appeared the *social dividend or social wage*.[4] This means the totality of the payments which are made to the individual by society, regardless of what the former has or has not given in exchange, as an individual: free elementary (and, later, secondary) education; free school meals; free health services, free hospital care and even free prescriptions; free parks, museums and sports-grounds; free, or almost free, muncipal services, such as public lighting; etc.

One must, of course, be clear about the meaning of the expression "free education" or "free health service". The freedom from payment applies only *to the individual*; *society*, must, of course, "pay" for these services, that is, devote part of its resources (of its total available labour-time) to the satisfaction of these needs. The "social wage" is thus the *socialisation of the cost* of satisfying a certain number of needs for all citizens.

This "social wage" foreshadows, at least potentially, the mode of distribution of the future, that is, of an economy directed towards satisfying the needs of all individuals. An economy based on the satisfaction of needs differs from a commodity economy in so far as it satisfies these needs *a priori*, distributing goods and services *regardless of any exactly-measured counter-payment* (exchange) supplied by the individual.*

* Cf. Lewis Mumford: "The foundations of this system of distribution already . . . exist. Schools, libraries, hospitals, universities, museums, baths, lodging houses, gymnasia, are supported in every large centre at the expense of the community as a whole. The police and the fire services, similarly, are provided on the basis of need instead of on the ability to pay: roads, canals, bridges, parks, playgrounds, and even—in Amsterdam—ferry services are similarly communised . . .

"In actuality, the claim to a livelihood rests upon the fact that, like the child in a family, one is a member of a community: the energy, the technical knowledge, the social heritage of a community belongs equally to every member of it, since in the large the individual contributions and differences are completely insignificant . . .

"We give at least a minimum of food and shelter and medical attention to criminals who have presumably behaved against the interests of society: why then should we deny it to the lazy and the stubborn? To assume that the great mass of mankind would belong to the latter category is to forget the positive pleasures of a fuller and richer life."[5]

Even in capitalist society, elementary education is free whether or not a child's parents pay their taxes, perform useful work for society, are "good citizens" or are hardened criminals.

But this "social wage" merely *foreshadows* the mode of distribution according to need; it does not offer a true image of it, even in societies which are in transition from capitalism to socialism (except, perhaps, where this transition takes place in the richest countries). It is only the commodity, money *form* of wages that has been given up; the *content*, poor and measured out with miserly care, is still the same.

Since we are still in an economy of semi-shortage, the social services are usually treated like poor relations. The way they are distributed is more akin to *rationing* than to *plenty*; sometimes it is even accompanied by an *obligation* (elementary education, vaccination, etc.). Excessively large classes; "mass-production" medical treatment ("doctoring on the cheap"); neglect of "non-paying" clients in favour of "paying" ones—these features link the embryonic forms of the "social wage" which much more closely to the commodity society which has given rise to them than to the socialist society whose task will be to open the way to plenty.* Only in a few special cases can the infinitely richer, freer and more varied content of the socialisation of costs reveal itself: free libraries which offer practically *all* kinds of books which may be asked for (and here it is necessary that room in such libraries be not strictly rationed!); museums and parks, open free of charge, which enable all citizens to enjoy the pleasures formerly reserved to a few narrow strata of rich or highly-educated people.

The prodigious development of the productive forces in the era of transition from capitalism to socialism makes it possible to set in motion two processes which radically alter the mode of distribution: on the one hand, the "social wage" must draw closer and closer to its "ideal" norm, that of plenty; on the other, more and more goods and services must pass out of the category of those distributed through exchange (purchase) and into that of goods and services distributed according to need.

The conditions governing this transformation of the mode of distribution are still linked to the requirements of a society based on semi-shortage. Before freeing itself from the heavy, age-old burden of economic calculation, society needs to calculate more exactly and precisely than ever before. The first goods and services to which the new norms of distribution can be applied are thus those

1. which are very homogeneous;
2. for which demand has become inelastic, in relation to a fall in prices and a rise in incomes;

* See the interesting studies by Brian Abel-Smith, Raymond Williams and Peter Townsend, in *Conviction*.[6]

3. which it is hard to use as products or services replacing those which are still distributed according to the norms of exchange of a commodity economy;
4. or the distribution of which in return for payment in money involves obvious injustices (actually reducing the national income), whereas free distribution would considerably enhance social welfare (providing a potential source of increase of the national income).

In short, society first socialises the costs of satisfying needs under conditions such that this socialisation does not involve a considerable increase in these costs. When demand for a product has become inelastic, however much prices fall or incomes rise, the socialisation of the costs of production of this product entails no extra charge for society as a whole. This is the position, for instance, with *salt* in every industrially advanced country, where consumption of it does not vary, in normal times, either with its price or with people's incomes.[7]

The economic law which governs the withering-away of commodity economy can be formulated like this: as society gets richer, and as planned economy ensures a mighty expansion of the productive forces, it acquires the resources needed to socialise the costs of satisfying an increasing number of needs for all citizens. And as the standard of living of the citizens rises, the elasticity of demand for more and more goods and services declines to zero, or even becomes negative, in relation to price reductions and increases in income. In other words, for these two reasons, the advances of planned economy make it possible to transfer more and more goods and services into the category of those which can be distributed in accordance with needs.

Already today in the richest countries, basic food needs—in the West, bread and potatoes—have become negatively elastic in relation to the rise in income. Satisfying them no longer demands more than a very small proportion of social resources. In Belgium, annual expenditure on bread fluctuates around 8 billion francs, out of a national income of nearly 500 billion francs, or less than 2 per cent.[8] In the U.S.A., consumption of grain as food in any form declined from an average of 3·77 bushels per head of population in 1937–1941 to 3·28 bushels in 1948 and 2·80 bushels in 1959.[9] It is the same with public transport in many metropolitan centres in industrially advanced countries. In all these cases, the *economic* conditions for distributing these goods (bread or rice) and services (public transport) through a socialisation of costs, that is, distributing them according to need, are already completely present. To these goods and services must be added those to which Cassel has given the name of "collective needs": education, health services, etc.[10]

Basic needs and secondary needs: freedom of consumption and rational consumption

A number of writers admit that such a *partial* transformation of the mode of distribution is feasible. But they do this, usually, only in order to deny at once that it could become universal in its application. Are there not constantly new needs arising, as fast as the "classical" needs are satisfied-[11]* Is it possible to bring *all* products, one after another, into the category of those which are distributed according to need, without at the same time giving rise to all-round wastage of society's resources, and thus seeing the reappearance of shortage in new spheres? Do not the products which satisfy even such basic needs as food, clothing and shelter vary *ad infinitum* in diversity and quality? Will not an attempt to do away with exchange and money in these spheres result in a dreary uniformity and lack of freedom?

Let us take first the question of the alleged variety of needs. Any moderately serious study of anthropology and history will show, on the contrary, how remarkably stable they are: food, clothing, shelter (and in certain climatic conditions, warmth), protection against wild animals and the inclemency of the seasons, the desire to decorate, the desire to exercise the body's muscles, the satisfaction of sexual needs, the maintenance of the species—there are half a dozen basic needs which do not seem to have changed since the beginnings of *homo sapiens*, and which still account for the bulk of consumer expenditure.[14]

To these we may add needs for hygiene and health-care (simple expressions of the instinct of self-preservation at a certain level of consciousness) and needs to enrich one's leisure (simple extensions of the needs to decorate, to exercise one's muscles, and to increase one's knowledge, which are as old as the human race), and we have almost exhausted the list of consumer expenses even in the richest countries of the world, on the basis of a small number of basic needs which are anthropological characteristics to a much greater extent than products of special historical conditions.

Since these needs have remained basically unchanged since the appearance of man on earth, and since even the richest classes of past ages have not extended their consumer expenditure beyond this remarkably short list of satisfactions, there is no reason to suppose that the coming of a socialist society, of abundance of products, and of individual and social consciousness at a much more mature level than ever before, will give rise to any revolutions in this sphere. Nowhere does the law of "diminishing returns" apply more than in regard to the intensity of needs.[15] Thus the first objection is disposed of.

* See, for an excellent refutation of the theory of needs growing *ad infinitum*, Lewis Mumford's *Technics and Civilisation*.[12]

It is all the more regrettable that a Yugoslav theoretician like Horvath should adopt the thesis that needs can grow *ad infinitum*.[13]

Let us now look at the apparently infinite variety of means to satisfy these few basic needs. There is, first, the problem of the *quantity* of the products required to met these needs. On this point, history has already provided an answer, on the part of the possessing classes of our era. Between the stout country squire of the early nineteenth century stuffing himself with roast beef and swilling port wine, or the big bourgeois of the "Belle Epoque" with his twenty-course dinners, on the one hand, and, on the other, the rich capitalist of today, slim, devoted to sport, and constantly watching his weight, the change is undeniable. With the increase in income, *the increasing consumption of food has given way to a more rational kind of consumption*; the criterion of health has superseded that of blind or showy self-indulgence. This change does not so much reflect an ethical progress as it reflects the demands of self-preservation, the self-interest of the individual himself.

The same applies where dress is concerned. True, in this sphere, especially among women, the amount of clothing "consumable" without damage to health and the possibilities of waste (clothes worn only once or twice) are much greater than in the sphere of food. Nevertheless, if the restraints of health do not apply here, those of *comfort* and *taste* soon come into play. Without the help of lackeys and servants it is not very comfortable to change one's clothes too often or even to possess too many. Indeed, though excesses in this sphere are constantly committed by the "new rich", several sociologists have observed that in the richest families of Britain and the United States a real reversal of this trend has occurred; clothes which are worn but comfortable, or simply clothes one likes, are preferred to clothes glowing with freshness or which are continually being replaced.[16] Others even speak of a stylistic evolution in clothing, which they describe like this: "first, a steady trend toward uniformity, with the clothing worn by people of moderate income coming to approximate the appearance and materials of the clothing worn by people of high income; second, a decline in the number of frills, reflecting a movement in the direction of greater simplicity; third, and most recent, an 'accent on youth'."[17]

The same situation exists in respect of housing and furnishing. When domestic servants and even housekeepers have vanished—and the new level of wages, together with social disapproval, will certainly make them vanish in the transitional society between capitalism and socialism!—there is a limit to the number of rooms one can *wish* to have (and can get) for one's accommodation, a limit dictated precisely by individual comfort. Already, today, except for a handful of millionaires, the luxury flat is preferred by most bourgeois to the nineteenth-century country house. Sweeping away the old-time rooms crowded with furniture and knick-knacks, the evolution of comfort and

taste has dictated a mode of furnishing the sobriety and functional nature of which set a relatively narrow limit to quantitative accumulation. This tendency even goes so far as to impose a voluntary restriction on the number of gadgets.[18]

There is no reason to suppose that these tendencies, which are already manifest in the last phase of capitalist society, *despite* a striking degree of social inequality and unlimited chances for waste on the part of the possessing classes, will be reversed in the era of transition from capitalism to socialism, or in socialist society itelf. On the contrary, it is infinitely more probable that *rational consumption* will develop further, at the expense of consumption inspired by mere caprice, desire to show off, and lack of taste or sense of proportion, forms of consumption which, in capitalist society, are not so much "innate in the consumer" as dictated and conditioned by the general social climate and the efforts of advertisers.

It remains to consider the problem of the diversity and quality of products which, instead of their quantity, delay the coming of the time when demand for them becomes inelastic both to price changes and to income changes. The phenomena of diversity and quality are nowadays dictated by fashion, by the compartmentalising of society, and by technical progress ("new products"). All these phenomena are, in the last analysis, *independent* of individual whims; even in capitalist society they are *social* phenomena, guided if not consciously determined by social forces.

Fashion is a typically social phenomenon, with the impetus coming from the side of the producers (the designers), not from that of the consumers. It is a few important *couturiers* in Paris who "make" fashion, not the "public". Already today, for the huge majority of consumers, the range of variety is remarkably *narrow*, and not at all limitless. At any given moment there are not an infinite number of styles "coexisting", but only a few. Even in the *haute couture* of our time, based on craft methods and the individual client, there are not "thousands" of different models; the number is more limited than is supposed. And alongside these specially-made models, intended for a few rich women, there is a small range of models which are mass-produced and intended for the masses. A socialist economy would probably be able to *expand* much more widely this range of varieties at present available, rather than have to restrict it, so as to be able to go over to distribution according to need. To do this it would rely on the law of large numbers, on the permanence of physical requirements, on the educative effect of "socialist advertising", on public opinion polls, on public competitions and other techniques which would make it possible really to proceed from the tastes and wishes of consumers in order to determine the variety of goods produced. For this reason we cannot go along with Oskar Lange and H. D. Dickinson when they

propose to retain commodity economy in a socialist economy so far as all high-quality products are concerned.[19]

As for new products, their mass production and their "launching" on the market, that is, their large-scale distribution among consumers, is already determined by the firms which produce them and not by the whims of the consumers. It is thus well and truly "planned"—but planned by a handful of capitalist firms, in accordance with criteria of private profit alone, and not in accordance with the objective and rational needs of the community and of the individuals composing it. How indeed can one talk of the consumer's "urgent need" for products which he does not know exist, "urgent needs" which do not reveal themselves until, as though by chance, the producer launches his new product on to the market?[20]

A socialist society would of course not hand over this planning to the "masters" of production and of promotion. It would avoid duplication of work and obvious waste. But it would take into account much more fully than is done today the real wishes of consumers, through the use of all available techniques of sampling opinion, direct questioning and meetings of citizens. It would extend the range of choice much further than today. And as in the sphere of consumer durables the measurement of needs is much easier and more precise, and waste can be easily checked, it is also much easier to determine the quantity of products needed to be accumulated in store in order to produce inelasticity of demand in relation to prices and incomes.

A certain margin of uncertainty may, of course, continue to exist. It will long, if not always, remain possible that there will be a conflict between the socialisation of certain household tasks and their carrying-out on an individual basis with the help of improved mechanical means. The washing-machine and the dish-washing-machine will go on being sought for, even when a very extensive and convenient network of restaurants and laundries has put high-quality services, free, at the disposal of all citizens. A socialist society will never *dictate* to its members the obligatory use of communal services by refusing to make available to them the means of securing these same services on an individual basis. Because such a society will aim to satisfy *all* the rational needs of man, it will respect the need for periodical isolation and solitude, which is the dialectical and permanent corollary of man's social nature. Similarly, while the individual motor-car is obviously irrational as a means of transport in towns, it remains by far the most flexible means of transport for leisure trips over a short or medium distance, and even when travel by air, rail and bus are free, men will go on wanting a private motor-car in order to follow their own itineraries, stopping where trains and buses do not stop, or merely in order to be alone. A socialist society will respect these wishes and, far from condemning them as "petty-bourgeois survivals" will endea-

vour to meet these needs, the rational nature of which will be obvious to anyone of good faith.

There is thus no substantial obstacle to the progressive universalisation of the new mode of distribution, according to need, without any counterpart in the form of an exactly measured amount of labour being required. On the contrary, present-day evolution, though distorted by all the consequences of a social setting dominated by money, exploitation, inequality and the desire to "succeed" at the expense of one's neighbour, already clearly shows the main lines of the future evolution of consumption. Consumption on a basis of plenty and freedom, far from developing without any limit towards irrational caprice and waste, will increasingly assume the form of *rational consumption*.* The requirements of *physical health and mental and nervous equilibrium* will more and more take precedence over the other motives of human behaviour. They will logically be the chief concerns of men whose basic needs have been met. Arrival at this conclusion requires no "idealisation" of man. As we see from the example of food-consumption by the capitalists of today, this corresponds to the very nature of the vertical animal, to his most obvious physical interests.

Ota Sik[21] distinguishes between economic and non-economic needs. This distinction, though useful for the purposes of formal analysis, entails the risk of introducing a dangerous confusion when it is a matter of defining the conditions that govern the arrival of a mode of distribution based on the satisfaction of needs. The problem is restricted to that of the distribution of material goods and services, which, though today subject to conditions of semi-poverty, will doubtless become abundant tomorrow. Some of the "cultural needs" mentioned by Sik are to be included in this category (needs for artists' equipment, means of transport for travel, means of education, and so on). Others of these "needs", however, clearly have nothing to do with goods and services: the need to investigate, to create, to teach, and so on. What we have here are more and more complex and elevated forms of *activity*, of human *praxis* becoming more and more universal. Including these in the same category of "needs" can give rise to many misunderstandings.

Withering-away of commodity production and money economy

While the "social wage" affects only a very small part of total consumption, its profound psychological and social implications remain limited or even quite hidden. The social climate of capitalism corrupts everything it touches, even those buds of the future society which are slowly opening within it.

* The final argument against the theory of unlimited expansion of needs is the limited duration of the time available in the course of a human being's life!

Hollingshead and his associates at Yale found that, even at the out-patient clinic where cost is no factor, "the higher an individual's social class position, the more likely he was to be accepted for treatment, to be treated by highly-trained personnel, and to be treated intensively over a long period". (Students treated the lower classes, residents-in-training tended to be assigned to middle-class patients, and the senior staff members took the higher-class patients.) It was found that these clinics spend eight times as much money treating a Class II patient as they do treating a Class V patient. There is a tendency to give individual psychotherapy to the higher classes, and administer shock-treatment, drugs, organic therapy, etc, to the lower-class patients.

"Hollingshead and Redlich report that this finding of discrimination 'came as a "bolt out of the blue" for the men who determined the policies of this clinic. It was certainly not planned. A similar situation is found in the public mental hospitals, where, also without regard to the ability of the patients' families to pay, the acute schizophrenics in Class III are more likely to get psychotherapy than Class IV and V patients in the same disease group who entered the hospital at approximately the same time.' The Class IV or V schizophrenic, they added, may receive one or two series of organic treatments in a public hospital. If these do not succeed, 'the patient drifts to the back wards where, in stultifying isolation, he regresses even more into a world of his own'."[22]

But when the "social wage" extends to the bulk of individual consumption* its economic, social and psychological implications are sharply manifest. Until then, economic growth, the rise in the standard of living, always implied an *extension of money and commodity economy*, in the era of transition from capitalism to socialism as in earlier periods.[24] Now, however, they imply, on the contrary, a more and more marked *shrinkage* of measured exchanges and of the use of money.

This happens in the first place, for obvious economic reasons. If an increasing proportion of needs are satisfied without expenditure of money by the consumers, this expenditure must relate to an increasingly restricted sphere of economic life. And if *increasing* money income is spent on acquiring a steadily *decreasing* number of commodities and services, then useless tensions are caused. There would have to be either a frantic increase in prices in this sector, or else the artificial stimulation of a continual emergence of "new" products, and

* The "social wage" must not be confused with the "indirect wage" or "transferred wage". These latter forms of payment are only *deferred money income*, whereas the "social wage" is distinguished by being an allocation *in kind*. This confusion is current among Soviet writers, and appears in the new programme of the C.P.S.U., in which, under the heading of "social consumption fund", sickness benefit and old-age pensions, on the one hand, and free education and health services, on the other, are all mixed up together.[23]

the appearance of "new needs", or else the soaking-up of an increasing proportion of this money income by means of taxation. The circulation of money would appear as more and more futile and pointless. In practice, the producers would receive ever-higher "wages", an increasing proportion of which would, however, be kept back at source, the remainder being spent on more and more casual and minor requirements. Money would thus in any case be excluded from the essential economic circuits, concerned with meeting basic and ordinary needs, and driven into the periphery of economic life (conspicuous consumption, gambling, forms of expenditure which socialist society would increasingly subject to more disapproval and penal taxation).

The most logical solution would be to *reduce*, and not increase, the amount of individual money wages and salaries, to reduce the circulation of money, in proportion as the new mode of distribution according to need spread and became general. "Individual wages" would become increasingly a small supplementary bonus to ensure the distribution of the last "scarce" goods and services, the last vestiges of "status" inherited from the age of social inequality. It would increasingly lose its function of preserving the consumer's freedom of choice, from the moment when plenty embraced an increasing range of goods and services. "Choice" will be restricted to spending one's time in shifting from one point of distribution to another, dividing one's time between one form of consumption and another, instead of substituting one form of expenditure for another. Commodity economy, money economy, the economy of semi-shortage, will have begun to wither away.

It is not only the logic of the new mode of production that will bring about this withering away of commodity production. *Automation* entails the same logical necessity in the sphere of production. The production of an abundance of goods and services is in fact accompanied by the more and more rapid elimination of all living, direct, human labour from the production process, and even from the distribution process (automatic power stations; goods trains driven by remote control; self-service distribution centres; automatic vending machines; mechanised and automatised offices, etc.). But the elimination of living human labour from production means the elimination of wages from the cost of production! * The latter is increasingly reduced

* It is pointless to dwell here on the insoluble contradictions to which automation giving rise to plenty would lead in capitalist society; the same force which creates an abundance of *goods* abolishes their potential *buyers*! But automation must necessarily lead to socialism for another reason, which Erich Fromm has well emphasised: "Is man, during the next few hundred years, to continue spending most of his energy on meaningless work, waiting for the time when work will hardly require any expenditure of energy? What will become of him in the meantime? Will he not become more and more alienated and this just as much in his leisure hours as in his working time?"[25]

to the "costs" of operations between enterprises (purchase of raw materials and depreciation of fixed plant). Once these enterprises have been socialised, this involves much less transfers of real money than simply accounting in monetary units.

As services will continue non-automatised for a longer period than goods, money economy will retreat more and more into the spheres of exchange of services for services, purchase of services by consumers, and purchase of services by the public sector. But in proportion as the principal services become automatised in their turn (e.g. public services, automatic machines for providing drinks and standardised articles of current use, laundries, etc.), money economy will become restricted more and more to "personal services" only, the most important of which (medicine and education) will, however, be the first to undergo a radical abolition of money relations for reasons of social priority. In the end, automation will leave to money economy only the periphery of social life: domestic servants and valets, gambling, prostitution, etc. But in a socialist society which ensures a very high standard of living and security to all its citizens, and an all round revaluation of "labour", which will increasingly become intellectual labour, creative labour, who will want to undertake such forms of work? Socialist automation thus brings commodity economy to the brink of absurdity and will cause it to wither away.

This withering-away, begun in the sphere of distribution, will spread gradually into the sphere of production. Already in the era of transition from capitalism to socialism, socialisation of the major means of production and planning imply a more and more general substitution of money of account for fiduciary money in the circulation of means of production.*

Only the purchase of labour power and the purchase of raw materials from the non-state sector will involve the use of fiduciary money. But when the increase in the standard of living is accompanied by a reduction and no longer by an increase in individual wages, the circulation funds of enterprises also start to wither away. With the "industrialisation of agriculture", with the withering away first of private enterprise and then of co-operative enterprise in agriculture and distribution, this withering away spreads to relations between producing enterprises and these sectors. Successively, money thus retreats more and more from relations between enterprises, relations between enterprises and consumers, relations between enterprises and owners of labour-power, relations between enterprises and suppliers of raw materials. The withering away of money becomes general. Only "units of account" survive, so that an economy based

* See Chapter 15, "The Soviet Economy", section on "Economic categories in the U.S.S.R.".

on accounting in terms of hours of labour may govern the management of enterprises and of the economy taken as a whole.

Economic revolution and psychological revolution

So far we have considered only the economic consequences of the new mode of production, the withering-away of commodity economy and of money to which it will lead. We must now consider the social and psychological results, that is, the complete upheaval in relations between men, between individuals and society, as these have developed out of thousands of years of social experience derived from antagonism between classes of exploitation of man by man.

Free distribution of bread, milk and all other basic foodstuffs will bring about a psychological revolution without precedent in the history of mankind.* Every human being will henceforth be ensured his subsistence and that of his children, merely by virtue of being a member of human society. For the first time since man's appearance on earth, *the insecurity and instability of material existence will vanish*, and along with it the *fear* and frustration that this insecurity causes in all individuals, including, indirectly, those who belong to the ruling classes.[27]

It is this uncertainty about the morrow, this need to "assert oneself" in order to ensure one's survival in a frenzied struggle of all against all, that is at the basis of egoism and the desire for individual enrichment, ever since the beginning of capitalist society and even, to a certain extent, since the development of commodity economy. All the material and moral conditions for the withering away of egoism as a driving force in economic conduct will have vanished. True, individual ownership of consumer goods will doubtless expand to an unheard-of degree. But in face of the abundance of these goods, and the freedom of access to them, the *attachment* of men to ownership will likewise wither away. It is the adaptation of man to these new conditions of life that will create the basis for the "new man", socialist man, for whom human solidarity and co-operation will be as "natural" as is today the effort to succeed individually, at the expense of others. The brotherhood of man will cease to be a pious hope or a hypocritical slogan, to become a natural and everyday reality, upon which all social relations will increasingly be based.

Will an evolution along these lines be "contrary to human nature"? This is the argument invoked as a last resort against Marxism, against the prospect of a classless society. It is regularly put forward by those

* One needs to have the philistine wisdom of pragmatism to suppose, as does Professor W. Arthur Lewis, that the only [!] advantage of distribution according to need is that which follows from the supposition . . . that the government knows better than the individual what the latter ought to consume as a matter of priority![26]

who do not know this human nature, who base themselves on crude prejudices or suspicions in order to identify morals and customs *derived from a certain socio-economic context* with biological or anthropological characteristics alleged to be "unchangeable" in man. It is also invoked by those who endeavour to preserve at all costs a conception of man which is based on the idea of original sin and the impossibility of "redemption" on this earth.

But anthropology starts from the idea that that which is distinctive of man is precisely his *capacity for adaptation*, his capacity to create a second nature in the culture which forms the only framework in which he can live, as Professor A. Gehlen puts it.[28]*

These practically unlimited possibilities of adaptation and apprenticeship are the essential anthropological feature.[29] Human "nature" is what precisely enables man continually to rise above what is merely biological, to continually surpass himself.

The tendency to competition, to the struggle of all against all, to the assertion of the individual by crushing other individuals, is not at all something innate in man; it is itself the product of an "acculturisation", of an inheritance which is not biological but social, the product of particular social conditions. Competition is a tendency which is not "innate" but socially acquired.[30] Similarily, co-operation and solidarity can be systematically acquired and transmitted as a social heritage, as soon as the social milieu has been radically changed in this direction.

More than that—a disposition to co-operation, to solidarity, to love of one's neighbour corresponds far better to specific biological needs and basic anthropological features than a tendency to competition, conflict or oppression of others. Man is a social being not only in the socio-economic sense but also in the biological sense. Of all the higher mammals he is the one who is born in the weakest state, least protected and least capable of self-defence. Anthropo-biology regards man as an embryo prematurely born, who thereby possesses a physiological organisation making him capable of a much longer period of apprenticeship and a practically unlimited adaptability—thanks to *activity and socialisation* during a year of existence as an extra-uterine embryo. Phylogeny here confirms ontogeny, since today is generally agreed that these very processes of activation (the beginning of deliberate *praxis*) and *socialisation* are at the origin of the human species.[31]

Many studies have shown that the pace and harmony of the growth

* The case of Professor Gehlen, who, independently and without any knowledge of Marx, reconstituted a scientific anthropology based on *praxis* as the distinctive feature of man, is all the more remarkable because he carried out this reconstitution under the Nazi régime. The latter tried to direct anthropology towards the study of "unchangeable biological characteristics", "racial substances", and the like. Scientific truth showed itself stronger than these charlatan appeals, even though they had implacable state power behind them.

of babies depend directly on the amount and warmth of social relations in which they are involved, especially with grown-ups (the mother) but also with children of the same age. While this observation is self-evident as regards apprenticeship to *language*, the chief vehicle of mental growth, it is more surprising but not less true as regards general physiology. Repeated physical contact is one of the key factors in the normal growth of babies; the absence of such contact can give rise to many illnesses.

An investigation carried out in the U.S.A. in two institutions where material (food) and health conditions were identical, but where, in one case, each baby was constantly looked after by its mother, whereas, in the other, eight to twelve babies were looked after by a single overworked nurse, produced impressive results. At the beginning of the experiment the average "development quotient" was 24 points *higher* in the second institution than in the first. After a year, this average *fell* from 124 to 72 in the second institution, while it *rose* from 101 to 105 in the first. After two years, not a single baby had died in the first institution, whereas 37 per cent of those in the second were dead.[32]

Comparison between the physical, mental and psychic equilibrium of children in societies where climate and institutions foster co-operation and solidarity, and our own capitalist society, also gives edifying results. The studies made by Dr. James Clark Moloney among Okinawa children, those of Laura Thomson and Alice Joseph among Hopi children, and those of Dorothea Leighton and Clyde Kluckhohn among Navaho children all come to the same conclusions.[33] The great American anthropologist Ashley-Montagu thus sums up his own analysis of "human nature":

"Man's organic potentialities are so organised as to demand but one kind of satisfaction, a satisfaction which ministers to man's need for love, which registers love, which is given in terms of love—a satisfaction which is defined by the one word, *security*—secure in the affections of others and secure in one's affection for them . . . In order that he may function on the social plane the most fundamental of (man's) social needs must be satisfied in an emotionally adequate manner for personal security and equilibrium."[34]

Only socialist society can satisfy this need, for it alone can organise economic life, day-to-day life, in such a way as not to come into constant conflict with this need that men have for security and affection, but on the contrary to satisfy it permanently and naturally.

The idea that every human being—and *a fortiori* every living creature—is dominated by an "instinct of aggression", or a "destructive instinct" is not at all supported by present-day biology. Psychology increasingly rejects it.[35] Lauretta Bender has shown that hostility or aggression, far from being "innate" in the child, do not develop except as a result of certain deficiencies which in the last analysis depend on

relations between the child and the milieu in which it is growing up.[36] Susan Isaacs found that "equality is the least common multiple to these conflicting fears (within a group of children)". Piaget points out that children react spontaneously to condemn any striking inequality as unfair.[37] After studying all the very rich, varied and contradictory data that exist on the question, Beaglehole arrives at the conclusion that there is no "property instinct" inborn in man, but at most a natural tendency for children to seize objects, which, depending on the social milieu and education, may or may not develop in the direction of *property*.[38] The list of witnesses could be extended indefinitely. The conclusion is overwhelming: there are no reasons to doubt that a radical change in the social milieu, in day-to-day social reality, resulting from a mode of distribution according to need, in an atmosphere of plenty, would quickly lead to the formation of a habit of co-operation and solidarity, abolishing competition and conflict as basic characteristics of human relations.[39]

It must be added that even in the animal kingdom, through conditioned reflexes, far-reaching alterations in the environment have the effect of abolishing "aggressive tendencies" which were once said to be "unchangeable". Experiments have shown that it is possible to get cats and rats to co-operate peacefully provided that one starts their apprenticeship soon enough and that the obtaining of food by both animals is based on co-operation.[40]* Experiments of the same kind have been successfully carried out with all classes of vertebrates, including fish. (Cf. Dr. Langois's experiments with perch which were presumed cannibalistic and which could be "trained" not to be.) And Professor Ashley-Montagu concludes:

> "Slight changes in the environment are sufficient to change the behaviour of creatures from a cannibalism that was erroneously thought to be instinctive to social behaviour that is co-operative."[42]

Will anyone dare to claim that man is incapable of adaptation and acquisition of different habits such as are within the scope of perch, mice and cats?

But will not this adaptation, this "habit of co-operation", cause an impoverishment of the human personality? Many philosophers and sociologists fear this. They speak of levelling down and grey uniformity, of the loss of qualities of mind and body which can develop only in a climate of competition and rigour. Dr. Alexis Carrel has devoted a best-seller to this theme, in which the mediocrity of his logic and his

* "Nothing is more natural than for the cat to 'love' the rat. And if one insists that the cat has an instinct to kill the rat, I must add that it has an instinct to love the rat too. In behaviour nature is what can be built in and not what is supposed to unfold from within."[41]

misanthropic, anti-humanist prejudices are to be observed in every chapter.[43]

Actually, these fears are based on confusion between individualism and development of the personality. Individualism is the sum of practices based on striving for material success *in conflict with other individuals*. In a socialist society, harmonious development of the personality does not depend on conflict with others, any more than abundance of goods at one's disposal depends on poverty among one's neighbours.

At one time it was claimed that the "virile qualities" could be developed only through war or in the military profession; who would dare to defend this view today, in the era of atomic weapons? Are not sport, driving, flying, climbing (up mountains and down caverns), and tomorrow the exploration of space and other planets, spheres in which physical courage and bravery can develop a thousand times more freely and broadly than in the battlefields of old? With this enormous difference that they will be accessible to *all* who may wish to engage in them, and not just to a small minority, that the practice of these occupations will no longer presuppose the oppression of the majority or even the killing of an adversary, but will be simultaneously open to everyone.

In reality it is the division of society into classes that has condemned the mass of mankind to the hopeless levelling of alienation. It is capitalist society that, by its mass production, has carried this tendency to extremes. It is capitalist society that produces millions of human beings who are all prisoners of the same dull fate, shut up within the same restricted horizon by the same wages, dressed in the same mass-produced clothes, reading the same sensational newspapers, relaxing in the same sports stadiums or in front of the same television programmes.*

By abolishing commodity production and opening the age of plenty, socialist society will give the signal for an extraordinary flowering of the human personality. Among hundreds of millions of individuals who today are indistinguishable in one grey mass, this personality will awaken, develop and flower in a thousand different directions, as yet unknown and unsuspected. Released from the wretched servitude of having to struggle for daily bread, human energy will be concentrated in art and science, in education and in physical and mental well-being. The place of competition between individuals for material existence will be taken by emulation in pursuit of aims of research, of beauty and truth. Aggressiveness will be sublimated into creative purposes.

Paradoxically, it is the full development of the *inequality* among

* Cf. Joseph Folliet, vice-president of the French Catholic organisation, Semaines Sociales. "Depersonalisation or, rather, the lack of personalisation, is . . . one of the features of our age."[44]

men, of the inequality of their aspirations and potentialities, the inequality of their personalities, that emerges as the aim of socialism. But this personal inequality will no longer mean a difference in economic power; it will no longer imply unequal rights or material privileges. It will be able to develop only in an atmosphere of *economic and social equality*.

The withering away of classes and of the state

The withering-away of commodity and money economy is, however, only one of the factors bringing about the disappearance of social inequality, classes and the state. The other factor is the considerable extension and creative use of leisure.

The ruling class or stratum of society has always possessed the privilege of leisure. This is the section which, freed from the burden of having to work for its living, from the burden of physically exhausting labour, from mechanical work, has been able to devote itself more or less completely to the accumulation of knowledge and the management of the economy and of society. The extension of such leisure will make it possible for an increasing number of citizens to undertake and carry out these functions. This is the *technical* means to ensuring the progressive withering-away of the state.

For nearly a century now the shortening of the working day has been a tremendous civilising factor, as Karl Marx pointed out when the ten-hour day was introduced.[45] It has provided the basis for everything worthwhile in present-day bourgeois democracy. Nevertheless, it is a contradictory phenomenon. The advantages gained by shortening the working day are largely offset by the lengthening of working life, the lengthening of the time spent in travelling to and from work, the intensification of physical effort (first for manual workers, then later, to an increasing extent, for office workers), and by the commercialisation of leisure.

Furthermore, the big step forward essentially remains the change from the ten- or twelve-hour day to the eight-hour day. The latter became general in modern-type industry in the advanced capitalist countries around 1920. Since then, there has been only a relatively slight shortening in the manual worker's working day, the forty-hour week existing only in a few countries, where, moreover, it is accompanied by the five-day week, the week of 45, 44 or 42 hours spread over five days implying even a lengthening of the working day.

We must take into account the considerably intensified pace of work since 1918, the nervous tension involved in operating equipment which is increasingly expensive and often dangerous, the often even greater tension experienced on the way to work, especially if the journey is made by mechanical transport, and also air-pollution and insufficiently sound-proofed housing, if we are to draw up *a compre-*

hensive balance-sheet of the physical, mental and nervous fatigue suffered by the worker of today, as compared with that of the worker of fifty years ago. Much evidence from doctors confirms that this fatigue is greater than it was, in spite of free week-ends and two or three weeks' annual holiday.

A careful study of Hamburg workers who spend their holiday in a wide variety of places has produced the conclusion that it is only during *the fourth week of the holiday* that rest (recuperation) becomes obvious and stable. Until then, change of place and initial fatigue cause reactions (some of them delayed) which make real recuperation impossible. The doctors who carried out this study were able to observe this "normalisation" from the fourth week onward, as regards breathing-rate, pulse, the amount of blood passing through the heart, the *tonus* of the arteries, the state of circulation in the upright position, blood pressure when resting and when working, and the weight of the body (loss of weight when this was excessive, gain when it was inadequate).[46]

What follows from this is that a large part of "free time" is not "leisure time" at all but "time spent in getting rid of physical and nervous fatigue". The German doctors distinguish between *Entmüdung* (loss of fatigue), *Entspannung* (relaxation) and *Erholung* in the strict sense (rest and the acquiring of new strength). The effect of holidays is largely neutralised because the worker takes his holiday when his organism is in such a state of fatigue that he is at first incapable of real, normal relaxation.

The commercialisation of leisure is adapted to this condition of things. It starts from a recognition that after an ordinary working day the average contemporary proletarian is incapable of an intellectual or physical effort. But on the pretext of providing him with "relaxation" or "diversion", commercialised leisure causes either an atrophy of critical capacity or a morbid and lasting excitement which ends by degrading and disintegrating his personality to some degree. All the condemnations of "leisure civilisation" nevertheless avoid the question: the ultimate cause of the degradation of leisure lies in the degradation of *work* and of *society*.*

* Cf. Fromm: "If a man works without genuine relatedness to what he is doing, if he buys and consumes commodities in an abstract and alienated way, how can he make use of his leisure time in an active and meaningful way? He always remains the passive and alienated consumer. He 'consumes' ball games, moving pictures, newspapers and magazines, books, lectures, natural scenery, social gatherings, in the same alienated and abstractified way in which he consumes the commodities he has bought . . . Actually, he is not free to enjoy 'his' leisure; his leisure-time consumption is determined by industry, as are the commodities he buys . . .; entertainment is an industry like any other . . . In any productive and spontaneous activity, something happens within myself while I am reading, looking at scenery, talking to

What is needed therefore, is a new and radical shortening of the time spent at work, in order to bring about the essential aim of socialism, which is that of the *self-management of producers and citizens*. Taking into account the present intensity of productive effort, the threshold at which the producer becomes materially capable of concerning himself currently, "habitually", with the management of the enterprise where he works, and with the state, is, apparently, *the half-day of work*, or a week of 20 or 24 hours, depending on whether working hours are fixed at five or at six hours a day. At the present rate of progress in productivity (an average of 5 per cent per year in the highly-industrialised countries), within the framework of a rationally planned economy freed from all military or parasitic burdens, and consciously directly towards the priority purpose of saving human labour, this objective could be attained before the end of the twentieth century. Even within the framework of capitalism, in the United States, the average length of the working week has fallen from 70 hours in 1850 and 60 in 1900 to 44 in 1940, 40 in 1950 and 37·5 in 1960, or a reduction of nearly 40 per cent in half a century, nearly four hours per decade.[48] On the basis of this same rate of decline the 24 hour week could be attained around 1990–2000 in a socialist society. The American economist George Soule comes to the same conclusion without leaving the framework of capitalist society—but without realising all the contradictions implicit in such a forecast.[49]

A more rapid reduction in the working day would undoubtedly be possible in a fully developed socialist society, but it would be held back by the raising of the school-leaving age (advancing from universal compulsory secondary education to universal compulsory higher education), and also by the lowering of the age of retirement. These changes would mean a more rational reduction in working hours *per human life* than a more rapid reduction in the working day—while productive life would continue to extend from sixteen to sixty-five.

A thoroughgoing reduction in the time spent at work would set the problem of leisure in an entirely different social context. Ultimately, of course, the "useful employment of leisure" is closely linked with the problem of *socialising the cost* of satisfying human needs, with the new mode of distribution. It is infinitely "cheaper" to satisfy the needs of 20 million workers with standardised television programmes made up of mass-produced films, or newspapers published in millions of copies, than to satisfy them with high-quality theatrical performances, a wide variety of books or the means of *producing* culture instead of merely *consuming* it. It costs much less to make a film for a

friends,· etc. I am not the same after the experience as I was before. In the alienated form of pleasure nothing happens within me; I have consumed this or that; nothing is changed within myself, and all that is left are memories of what I have done."[47]

million spectators than to enable a million amateurs to make their own films. Galbraith attributes the increase in juvenile delinquency amid affluence to the inadequacy of public expenditure as compared with the excessive amount of private consumption of commercialised leisure.[50] But with the raising of citizens' standards of living, and the general development of social wealth, the useful employment of leisure will become increasingly a transformation of the citizen from being a passive object to being a conscious creative participant in a variety of cultural activities (sport, art, science, literature, technique, education, exploration, etc.) At the same time, participation in the management of the economy and the leadership of social life, which today involves only a tiny fraction of the leisure of the workers as a whole (except in the case of the active members of the workers' organisations), will become more and more important as a way of using "free time". It also will tend to become active and creative rather than passive, as at present ("attendance at meetings" through a feeling of duty, of obligation to others, because one must, or out of personal interest which is often of a very dubious kind).

It is often objected that the workers "do not want to manage their enterprises".[51] Usually, this refers either to attempts at "joint management" within a capitalist economy or to certain "marginal" experiments in the Eastern countries, that is, in both cases, to enterprises whose real fate is felt by the workers concerned to be settled elsewhere, and in a socio-economic context in which exhaustion and alienation on the part of the labour-force have not been reduced. If the worker declines to lose his precious hours of rest attending meetings on which *nothing decisive for his own fate* depends, that should not surprise us. It has been enough, however, in Yugoslavia, for the experience of self-management of enterprises to give the workers concerned the feeling that their activity in the sphere of management has a real and positive, effective influence on their standard of life, for an increasing proportion of the working masses to participate actively in the work of the workers' councils. The latter now control nearly a third of the financial resources of the enterprises.[52]*

Automation makes a big contribution to this process. It logically implies a tendency towards the elimination of the labourer, or even the skilled worker, from the production process. It tends to increase the labour-force employed before and after actual production (research and investigation work, administration and distribution), but to the extent that it takes place in a socialised, or already socialist, economy, *it does away with unskilled manual labour, reproducing only more and more highly skilled and "intellectual" labour.* It thus appears as

* Writers so various as the French sociologists Touraine and Dofny and the American psychologists Meier and Viteles recognise that workers do seek opportunities to determine decisions in the enterprise where they work.[53]

the great force working to abolish the difference between manual work and mental work, leaving only the latter in existence.

The industrialisation of agriculture, which has already gone very far in the United States and which is spreading in Western Europe, will be the last tendency of economic evolution connected with the withering-away of classes and of the state. It will cut down to a minimum the number of "countryfolk" engaged in "farm and field" work, and those who remain will be transformed more and more into agronomists, geotechnicians, and engineers in charge of automatic or semi-automatic agricultural machinery. The break-up of the big cities into homogeneous "new towns", each one self-sufficient, will do away with even the outward signs of the difference between "town" and "country" and create integrated areas embracing greenery, cultivation, housing, recreation and social life, and zones of industrial production.*

Radical reduction in the size of these areas will make it possible to abolish to an ever-increasing extent those *delegations of power* which continue to predominate in the first phases of the withering away of classes and the state. They will replace self-management by citizens on a rota basis, in *ad hoc* social organisations, by self-management of *free communes of producers and consumers*, in which everybody will take it in turn to carry out administrative work, in which the difference between "directors" and "directed" will be abolished, and a federation of which will eventually cover the whole world.

Is this a Utopia? What is essential is to see that these possibilities are all contained in an advance of productivity made the most of by an economic system based partly on the socialisation of the means of production and the creation of plenty in goods and services, and partly on the replacement of commodity economy by a mode of distribution which eliminates money and the desire for personal enrichment from the life of mankind.

Economic growth not a permanent aim

The problem of investment in a non-money economy has not yet been considered. To solve it, however, is not difficult, as soon as this economy really enjoys a situation of plenty. The producers who continue to be associated with enterprises in department I (producing capital goods) will have exactly the same rights as producers working in enterprises of department II (producing consumer goods) so far as drawing from the general wealth of society is concerned, even

* Already today, in the United States, the economists of the Department of Agriculture forecast that in 1975 country life will have been replaced by town life over a large area. The newspaper *Christian Science Monitor* wrote on 13th July, 1956 that: "The trend is making slowly and surely, but apparently inexorably, the whole spacious Far West into a sort of super-city, where people think in terms of convenience, television and fast traffic."[54]

though their labour does not increase directly, but only indirectly, the plentiful stock of wealth at the disposal of citizens. The products of their labour will not be "sold" on a "market" but will serve to renew the used-up stock of machinery, raw materials, auxiliary products, etc., which are needed for current production in departments I and II.

Will any "net" investment continue to exist over and above this gross investment, this simple reproduction*—an expanded reproduction of a socialist, non-monetary type? In other words, will the productive forces go on increasing indefinitely in a socialist society? It will be for the citizens of socialist society alone to answer this question, that is, it will really be a matter of free choice for them, and not of any "economic necessity". Under capitalism, and even in the transition period from capitalism to socialism, the idea of exercising "preference" as between the "marginal utility of net investment" and the "marginal utility of increased leisure" is basically absurd. Current consumption by producers, even when it is increasing, always falls short of felt needs; the length of the working day, even when it is being cut down, continues to be limited only by the state of physical and nervous fatigue beyond which output falls precipitously.

As against this, in a socialist society which ensures plenty in goods and services to its citizens, the possibility of a genuine choice between increased wealth and increased leisure will be given for the first time. This will be a real choice, in the sense that it will no longer depend on an economic need to meet pressing needs. The only economic demands which still exist will be that of renewing the stock of machinery (gross investment, depreciation) and that of ensuring an increase in the social product corresponding to the increase in population. As, however, it is to be hoped that socialist mankind will plan its population increase just as it will plan the economy, freedom of choice for the citizens will remain unimpaired.

In any case, economic growth is not an end in itself. The aim is to satisfy the needs of society, of the consumers, within the framework of optimum rational development of all human potentialities. Just as the *optimum* of consumption does not at all imply unlimited increase, the satisfaction of human needs does not in itself imply a continuous and unlimited expansion of the productive forces. When society possesses a stock of automatic machinery which is adequate to cover all current needs, including a reserve of multi-purpose machine-tools sufficient to cope with any emergency, it is probable that "economic growth" will be slowed down or even halted for a time.† A man who is

* See Chapter 10.

† Obviously anticipating, Professor Galbraith declares that now "it must be assumed that the importance of marginal increments of all production is low and declining. The effect of increasing affluence is to minimise the importance of economic goals. Production and productivity become less and less import-

completely free from all material and economic worries will have been born; political economy will have had its day, because economic calculation will be finished. The question of "profitability" or of "economy of labour-time" will have vanished as a criterion of wealth, and will be replaced by the mere criterion of leisure and its best use, as Marx foresaw in a prophecy of genius:

"The theft of other people's labour, which is the basis of present-day wealth, is a wretched basis when compared with this new basis of wealth created by large-scale industry itself. As soon as labour in its direct form ceases to be the principal source of wealth, labour-time ceases, and must cease to be the measure of wealth, and therefore exchange-value must cease to be the measure of use-value. The surplus labour of the masses ceases to be the condition for the development of general wealth, just as the leisure of a minority ceases to be the condition for the development of the general capacities of the human mind. Thus there collapses production based on exchange-value, and the immediate process of material production loses its sordid and contradictory form. The free development of individuals, not the shortening of necessary labour-time in order to create surplus labour [becomes the aim of production]; it is thus now a matter of reducing to the minimum the necessary labour of all society, so as to make possible the artistic, scientific, etc. education of individuals through the leisure and resources thus created . . .

". . . If the working masses themselves appropriate their surplus labour—and if the disposable time thereby ceases to have a contradictory existence—necessary labour time will be limited by the needs of the social individual, and the development of society's productive forces will, on the other hand, increase so rapidly that the leisure of all will increase despite the fact that production will be directed towards increasing the wealth of all. For real wealth is the developed productive power of all the individuals. Thus it will no longer be labour-time that will be the standard of wealth, but leisure."[57]

Or, more precisely: the criterion of wealth will become men's free, rational, creative use of free time, directed towards their own development as complete and harmonious personalities.

Alienated labour and free labour

When we spoke of the alienation of labour, this was in the sense of the loss of control by the producer, first over the product of his

ant."[55] But in a fully developed socialist society, this analysis certainly becomes relevant. Totally unfounded and unreasonable, however, is the dark prophecy made by Simone Weil: "No technique will ever relieve men of the necessity of continually adapting, by the sweat of their brow, the mechanical equipment they use."[56] Moreover, this view of the future shows clearly that socialism has nothing to fear from any "law of diminishing returns" which would end by making economic growth "too burdensome".

labour, and then over the conditions of his labour; thus, in the sense of labour "for somebody else", under the supervision and the orders of somebody else.* This alienation does not disappear automatically with the socialisation of the principal means of production. It disappears only when individuals feel *consciously and spontaneously* the owners of the products of their labour and the masters of their conditions of labour. It thus demands real self-management by the producers and a real abundance of goods and services sufficient to cover all essential needs and the essentials of every need. It corresponds to the disappearance of the wage relationship in this twofold sense: disappearance of the proletarian working for somebody else and disappearance of the proletarian working for a wage which is meanly and precisely determined.

There is, however, an alienation of labour which is anterior to labour "for somebody else", namely, the enslavement of man to the tyranny of the division of labour, and alienation of man from the various potentialities which are dormant within him but which cannot develop so long as he "has his trade", "practises his profession", "is looking for *a* job".

Nobody is *born* a street-sweeper, a welder, or a labourer. The great majority of "jobs" in the processes of production and distribution of goods and services do not correspond to any even slight "calling" on the part of those who carry them out. Vocational guidance endeavours at most to make use of *certain* callings in order to adapt man as rationally as possible to the needs of production; it is far from adapting economic life to the inborn needs of individuals.

"It [capitalist industry] crushes, stifles, breaks or distorts certain human inclinations and potentialities which the worker possesses, and in their stead creates certain definite aptitudes related to the job. Moreover, it tries to start this process as soon as possible, in the young child, by favouring pre-apprenticeship as against raising of the school-leaving age (or premature specialisation as against the common core of subjects in secondary education). These are at least the real, actual, practically observable conditions of the existence of 'aptitudes' in the present-day worker. We are justified in repeating . . .: that the particular way in which labour is allocated, its dispersal among the widest variety of trades and jobs, is and continues to be the work of society, of the particular economic framework of which the worker is at once subject and object, driving force and victim, a framework which stimulates, shapes and produces in the adolescent those 'aptitudes' which he needs, to the exclusion, if necessary, of truly human concerns; and which thereby, on the other hand, while usually exterminat-

* We intend to discuss in detail the problem of alienation in a book to appear shortly, entitled *The Formation of Karl Marx's Economic Ideas.*

ing the manifold potentialities of a man, creates the foundations and pre-conditions for the formation of narrower aptitudes conforming to new social criteria—which are, precisely, the sphere of vocational guidance."[58]

There is no better proof of the spontaneous revolt of man against the tyranny of the division of labour than the huge development of *amateur, do-it-yourself* activities which has occurred, in every possible form, throughout the Western world, in step with the relative shortening of the working day. In the nineteenth century—and, in wartime, even in the twentieth—the worker who busied himself with a vegetable garden had a "material interest" in what he was doing. But the thousands of employees of Western Electric who grow flowers, make wooden furniture and toys, and devote themselves to every imaginable human activity, from ornithology to weight-lifting (see the investigation referred to by David Riesman[59]) are living witnesses to the spontaneous desire to *offset* the uniformity of their jobs by differentiated, disinterested and free activities,* proof that they instinctively strive to rediscover their own personalities, which economic life based on the division of labour must inevitably mutilate.

It is not only because it is inadequately paid, exhausting to the muscles and nerves, monotonous and directed by others, that the labour of the great majority of workers in the big factories or offices of today is looked on by them as forced labour. They have this attitude because their work cannot in the long run *interest* them, since it develops *only one* side of human aptitude. Even the recent attempts to "adapt the machine to the man", to develop "flying squads" which constantly vary the work they do within a given enterprise, to "reintegrate" excessively specialised jobs by bringing together workers with several skills and multi-purpose machines (see Peter Drucker[62]) do not release the individual from the tyranny of the division of labour.

The latter is in itself contrary both to human nature and to the interests of the harmonious development of the individual. Professor Nadel points out that, while the average individual suffers a general decline in intelligence around the age of 30 to 35, this decline is much more marked "among individuals who have followed the same profession and never changed their environment, always staying in the same place, as against those who have moved about a great deal and have changed their occupations frequently".[63]

* "One of the comments most frequently heard from the workers about their hobbies is that they give them 'something they like doing', something 'in which they feel free', free above all to choose what they will do as well as the place and the moment at which they will do it", writes Georges Friedmann.[60] And the same writer quotes the following passage from Ferdnand Zweig's little book, *The British Worker*: "Hobbies probably express a man's whole personality more truly than work itself does, because he works through necessity, but follows his hobby through choice."[61]

The tyranny of the division of labour is felt, however, quite differently by workers who have to perform a basically mechanical and routine type of work, and by those who carry out professions which *may* correspond to a real vocation: artists, scholars, research workers, engineer-inventors, designers of machines, architects, and in general all who *create*, who share in the typically human joy of creation.

"Exemption from manual toil; escape from boredom and confining and severe routine; the chance to spend one's life in clean and physically comfortable surroundings; and some opportunity for applying one's thoughts to the day's work": this is how Galbraith analyses the advantages of those who no longer have the feeling that they are performing forced labour.[64] It is true that the word "creative" does not figure among the conditions listed here, but this is because Galbraith, with a curious mixture of lucidity and apologetic banality, includes in this category of persons not only the professions mentioned above but also . . . teachers, heads of large companies (*sic*), advertising experts, etc., who, though they are more highly paid, are no less slaves of the division of labour than the workers are, and are basically subjected to the same alienating disadvantages.[66]*

True, the "intellectual" of today is far from being a harmonious or happy person, even if he has been able to follow his vocation and is free of all material servitude such as would distort or coerce his spirit or his consciousness—conditions rarely fulfilled in capitalist society, any more than in a bureaucratic transitional society. He is still subject to the tyranny of an increasing degree of specialisation.† As a rule he suffers from an unbalanced way of life, in which physical exercise and nervous equilibrium are not cultivated as conscious purposes, as they should be. Too often cut off from practical life, production or social activities, the present-day intellectual also suffers from another kind of alienation, alienation from *praxis* and from his social nature. "The contrast between the potential and the actual, this historical and social contrast, is transferred . . . to the 'inner life' of the most gifted individuals, where it becomes a more or less conscious conflict between

* Galbraith is nevertheless quite right when he notes that: "The identity of all classes of labour is one thing on which capitalist and communist [the author should have written: Stalinist] doctrine wholly agree. The president of the corporation is pleased to think that his handsomely appointed office is the scene of the same kind of toil as the assembly line, and that only the greater demands in talent and intensity justify his wage differential. The Communist officeholder cannot afford to have it supposed that his labour differs in any significant respect from that of the comrade at the lathe . . ."[65]

† Stimulated by the desire for gain and favoured by the whole economic and social climate of present-day society, "disintegrated" by a division of labour which has been carried to extremes, this excessive specialisation may moreover give rise to a particular form of alienation and boredom, even among scientists or artists who have been able to do what they want to do.[67]

theory and practice, between dream and reality; and this conflict is a cause of the misgiving and anguish, like every contradiction which is unresolved or seems beyond resolution."[68]

Nevertheless, these "most gifted persons" of today, in so far as they have succeeded in devoting their lives to a creative activity which basically corresponds to their inner needs, come closest to what the socialist man of tomorrow could be, when freed from the division of labour and the distinction between manual and mental labour.

The generalisation of university education—which moderately optimistic observers foresee for the end of the twentieth century (Soule, Deutscher);[69] the abolition of all routine work; the liberation of research and thought from all material slavery; the active participation of men in the management of the economy and of society; the abolition of the barrier between theory and practice; the socialist humanism which puts human solidarity and love of one's neighbour first among the motives of human action; all these elements of the withering away of the social division of labour are indispensable contributions to the birth of a new man, for which the economic conditions of plenty and socialism furnish only the general possibility, and for which conscious, pedagogical, therapeutic activity on the part of men, in the highest sense, will be the indispensable midwife.*

Man's limitations?

But will this creative human activity, integrating theory and practice, leaving all mechanical and routine work to machines, passing from research to production and from the painter's studio to the site where a new town is being built amid the woods—will it still be "labour"? This basic category of Maxist sociology and economics must in its turn be subjected to a critical analysis.

Labour is the fundamental characteristic of man. It is through labour that the human race appropriates its necessary means of life; it is labour which is at once the primary reason for, the product of and the cement of social relationships. Man does not become a social being in the anthropological sense of the word, does not acquire his normal physiological equipment, without a phase of "active socialisation" which extends from his birth until puberty, if not until his physical and intellectual maturity.

But when the *need* to work in order to produce the means of life has gone, because machines by themselves carry out this work, what remains of labour as man's fundamental characteristic? Anthropology defines the concept of labour. What is, in fact, characteristic of man

* In this sense, Albert Lauterbach is wrong when he states that, for the Marxists, individuals will automatically achieve psychical equilibrium as soon as social and economic institutions have been changed.[70]

is *praxis*, action: "Man is a creature so constituted physically that he can survive only by acting."[71]

Labour in the historical sense of the word, labour as it has been practised up to now by suffering and miserable mankind, condemned to earn their bread in the sweat of their brows, is only the most wretched, the most "inhuman", the most "animal" form of human *praxis*. Just as for Frederick Engels the entire history of class-divided humanity is only the pre-history of mankind, so labour in its traditional form is only the prehistoric form of *creative, all-sided human praxis, which no longer produces things but harmoniously developed human personalities*. After the withering away of the commodity, of value, money, classes, the state and the social division of labour, fully-developed socialist society will bring about the *withering-away of labour* in the traditional sense of the word.*

The final purpose of socialism cannot be the humanisation of labour, any more than it can be the improvement of wages or of the wage relationship; there are only transitional stages, expedients and palliatives. A modern factory will never constitute a "normal" or "human" setting for human life, no matter how much the working day is shortened or the place and its machinery are adapted to man's needs. The process of the humanisation of man will not be completed until labour has withered away and given place to creative *praxis* which is solely directed to the creation of human beings of all-round development.†

For a long time, *homo faber*, man as producer of the instruments of labour, has been put before us as the real creator of civilisation and of human culture. Recently, writers have tried to show that science, and even philosophy itself, has emerged progressively from productive labour in the strict sense, constantly nourishing itself from practice.[76] The Dutch historian Huizinga has, however, sharply opposed this tradition, with his contrary conception, of *homo ludens*, "man at play", as the real creator of culture.[77]

Marxism, brilliantly confirmed by all present-day anthropology, and to a large extent even by Freudian psychology, enables us to integrate these two currents of thought, each of which reflects a fundamental aspect of human history. At the start, man was both *faber* and *ludens*.‡

*In *The German Ideology* Marx and Engels speak of "the end of labour", of its "transformation into self-activity" (*Selbstbetätigung*).[72] See also, in the same work, the clear contrast between "free labour" and "abolition of labour".[73]

† Speaking of creative activities, Max Kaplan writes: "Now man does not weave the basket or play the tune or build the table: the basket is now part of him, he is the tune, the table has not been made but *he has been made* . . . in the act of creating the table."[74] Cf. Marx, in *Grundrisse*.[75]

‡ "A [Bemba] man says he has to cut trees between such-and-such climatic changes, but not that he has so many hours of work to get through, and daily work, which has become from habit [?] almost a physiological necessity to many Europeans, only occurs at certain times of the year."[78]

Scientific and artistic techniques progressively separated off from production techniques; but, with their specialisation, a social division of labour became indispensable for an initial phase of further progress. *Homo faber*, banished to outer darkness, has neither the resources nor the leisure for play, free creation, the spontaneous and disinterested exercise of his faculities, which is the specific aspect of human *praxis*.[79] *Homo ludens* has become, more and more, man of the privileged classes, that is, of the possessing classes and those dependent on them.

But thereby he has in turn suffered a special kind of alienation: his play becomes increasing *sad play*, and continues so even during the great centuries of social optimism (for instance, the sixteenth and nineteenth centuries). Freed from the constraint of routine work, reintegrated in the collective community, socialist man will once again become both *faber* and *ludens*, increasingly *ludens* and at the same time *faber*. Already today, attempts are being made to introduce more and more "play" into certain forms of work, and more and more "serious work" into play.[80] The abolition of labour in the traditional sense of the word implies at the same time a new flowering of the chief productive force, the creative energy of man himself. Material disinterestedness is crowned by the creative spontaneity which brings together in the same eternal youth the playfulness of children, the enthusiasm of the artist, and the "*eureka*" of the scientist.

For the bourgeoisie, property means freedom. In an "atomised" society of commodity owners, this definition is broadly true; only a sufficient amount of property releases a man from the slavery of selling his labour-power to get the means of existence, from this condemnation to forced labour. This is why bourgeois philanthropists, no less than demagogues, ceaselessly call for the impossible "deproletarisation" of the proletariat through the "diffusion of property".

Vulgar Marxists have taken out of its context a famous phrase of Hegel's, quoted by Engels, according to which freedom is merely "the recognition of necessity."[81] They interpret it in the sense that socialist man will be the subject to the same "iron economic laws" as capitalist man with the sole difference that, having become conscious of these laws, he will endeavour to "use them to his advantage".*

This positivist variant of Marxism has nothing in common with the real humanist tradition of Marxist and Engels, with the boldness of their analysis and the profoundity of their vision of the future. Marx and Engels both repeated more than once that the realm of freedom

* The Soviet philosopher I. N Davidov has recently tried to provide a much richer variant of this conception by basing himself on the "innate needs of man" which freedom must *necessarily satisfy*.[82]

begins *where necessity ends*.* Even in a socialist society, factory work would continue to be a *sad necessity*, which was felt as such; it is in one's leisure hours that real freedom unfolds itself. The more that labour in the traditional sense of the word withers away, the more it is replaced by a creative *praxis* of all-round-developed and socially integrated personalities. The more man frees himself from his needs by satisfying them, the more does "the realm of necessity give place to the realm of freedom".

Human freedom is not a "freely accepted" constraint, nor is it a mass of instinctive and disorderly activities such as would degrade the individual. It is a self-realisation of man which is an eternal becoming and an eternal surpassing, a continual enrichment of everything human, an all-round development of all facets of humanity. It is neither absolute rest nor "perfect happiness", but, after thousands of years of conflicts unworthy of man, the beginning of the real "human drama". It is a hymn sung to the glory of man by men aware of their limitations who draw from this awareness the courage to overcome them. To the man of today it seems impossible to be both doctor and architect, machine-builder and atom-smasher. But who can speak of limitations that man will *never* be able to break through, man who is stretching out his arms towards the stars, who is on the brink of producing life in test-tubes, and who tomorrow will embrace the entire family of mankind in a spirit of universal brotherhood?

* For instance, Engels at the end of *Socialism—Utopian and Scientific*. Also Marx: "In fact, the realm of freedom actually begins only where labour which is determined by necessity and mundane considerations ceases; thus in the very nature of things it lies beyond the sphere of actual material production."[83] Cf. David Riesman: "We should consider the possibility that, if the other-directed man is to be made free, it will not be by work but by play."[84]

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CHAPTER EIGHTEEN

THE ORIGIN, RISE AND WITHERING AWAY OF POLITICAL ECONOMY

Economic activity and ideology

THE poorer a human community is, the more does the struggle for daily bread dominate its everyday life and the more do the requirements of this struggle influence all its social activities, including those which are not at all directly "economic". "In primitive communities, for the religious person as for the non-religious, spirits and gods mean nothing apart from the relations between them, on the one hand, and, on the other, those values which are basic for human beings, and economic realities."[1] Man is distinguished from other species by the fact that he appropriates his means of life *socially*. Social appropriation means appropriation through *conscious* activities, activities about which men "form ideas" and ask themselves questions. It is therefore not surprising that, in the most primitive societies, magico-ritual activities are essentially *functional*, having the direct or indirect purpose of improving or regulating the supply of food.* Numberless myths, legends, proverbs and tales, passed on by oral tradition, bear witness to this fact. Language itself is shaped by it. Among poor tribesmen, as in parts of China, it is the practice to greet people by asking them: "Have you eaten well?"[3]

The various expressions of an animistic, ritual and magical character which are assumed by primitive aspirations towards greater well-being, and especially towards greater security of life, cannot be interpreted as *ideologies*. Ideology springs from conflict between men and not from conflict between men and nature. Primitive thought may supply a naïvely animistic envelope to the natural forces which it discovers empirically, and it may believe that the laws governing natural phenomena have their source in a mysterious "life force".† It does not, how-

* "In this area [that occupied by the Bemba tribe, in Northern Rhodesia], as in the Trobriand islands [in the Pacific], the rites seem to centre round those economic activities which give rise to the most doubts, fears or anticipations among the people, itself a proof of the need they fulfil for each individual."[2]

† "The copper-smelters and smiths will think that they cannot melt the ore and thus change the nature of the material being worked, without being obliged to call upon a higher power which is able to dominate the life-force of the 'earth' which they thus claim to transform into metal. The hunter, too, will be sure that it is through a higher life-force that he has been ingenious enough to construct his traps and weapons efficiently and use them skilfully in struggle with his quarry."[4]

ever, seek to *conceal* the facts, but rather to make use of them for practical purposes. It is above all pragmatic in its approach.

It is only when the division of society into classes begins, when the social division of labour separates mental labour from manual labour, and the need to justify exploitation appears, that ideology in the sense of "bad conscience" can arise. The old mentality, based on primitive clan communism, slowly dissolves. But its vitality remains very great, and thousands of years have to pass before the last traces of these feelings of elementary solidarity disappear. It is, moreover, by utilising these feelings of solidarity and co-operative discipline within a communistic society that the first ideologists in the service of the ruling classes endeavour to persuade the working classes to accept their situation of permanent inferiority. This is the "organic" conception of society, which is worked out in order to justify a social division of labour identified with the division of society into rich and poor, privileged persons and producers, those who give orders and those who obey them.*

Thus, in the fourth century B.C., Menenius Agrippa explained to the producers that it was quite in order for them to work so as to maintain the idle rich, since the latter fulfilled in relation to them the same function as the stomach in relation to the arms.[6] About the same time without knowing of the work of his Roman colleague, the Chinese philosopher Mang-Tsze (Mencius, *c.* 380–290 B.C.) was justifying in exactly the same way the social division of labour between mental and manual workers:

"There are mental workers and manual workers. The mental workers keep order [!] among the others; the manual workers are kept in order. Those who are kept in order by the others feed the latter [yes, indeed!]. Those who keep the others in order are fed by them. Therein lies the duty of everyone on earth."[7]

Some few dozen years earlier, in his *Republic (Politeia)*, Plato had compared the philosophers to the head, the guardians to the breast, and the rest of the people to the lower parts of the social organisms. Already in the eighth century B.C., however, the song of Purusha, in the Hindu literature of the Brahminical era, made the four classes of society spring from four different parts of the body of the god Purusha: the priests are born from his head, the warrior nobles from his arms, the peasants from his thighs and the slaves from his feet.[8] The apologetic purpose of this "idea" is obvious. It is hard to deny that

* A curious echo of this "organic" conception of society is to be found in the writings of certain modern critics of economic liberalism, such as Karl Polanyi. The latter treats even slaveowning society as a society which "integrated the individual into society" and makes no distinction between the way a free member of village community saw his position and the way his position appeared to a slave or a serf.[5]

it was worked out in order to justify a social order which seemed unfair to the mass of the people.

The dawn of economic thought

If ideology was born with the division of society into classes, the dawn of economic thought—of "political economy"—coincides with the development of a society based on petty commodity production. The "organic" conception of society is doubtless needed to justify social exploitation. But the latter remains transparent. The possessing classes appropriate the social surplus product directly, in the form of use-values. There is no mystery to be penetrated, no veil to be rent, and so no "law" to be discovered.

When commodity production, production for a more or less unknown market, and money economy appear, when sudden fluctuations in prices cause thousands of producers to fall into debt and to be ruined, when money dissolves the ancient social relationships and separates the cultivator from his forefathers' land, the first *problems* of an economic kind arise. Only then are the first attempts made to find an answer to these problems. It was in China and in Greece, where petty commodity production and money economy seem to have first arisen, that the dawn of man's economic thinking occurred.

The questions which preoccupied the first economic thinkers related essentially to *economic and social instability*. The Chinese thinkers, no less than Plato and Aristotle, strove to find the reasons for this instability and how to cure it. Neither the Chinese nor the Greeks regarded wealth, or enrichment, as the worthiest purpose or most useful activity of the citizen. The equilibrium of the community (the city, the state) was put higher than the enrichment of (certain) individuals. These ideas faithfully reflect the level of social development reached by ancient Greece and by China, in which trade and credit occupied a secondary position, with the crafts and agriculture still the fundamental economic activities and with social stability seeming to be the condition for everyone's well-being (any social instability disorganised irrigation and caused famine in China; civil wars and wars between cities destroyed the prosperity of the Greek *polis*).

But these first thinkers found themselves faced by a paradoxical situation. On the one hand, agriculture was the foundation of society, the peasant the most "useful" citizen. On the other, money seemed to be more powerful than the peasant; commodity economy was undermining economic stability.*

Obsessed by this problem, the first Chinese economic chroniclers gave their works the title: *Food and Money*.[9] Stefan Balazs does not hesitate to translate this formula as "use values and exchange values".[10] Even if this is anachronistic, it cannot be denied that the

* An echo of the same preoccupations is to be found in the Old Testament.

old Chinese writers, no less than Plato and Aristotle, did distinguish between exchange value and use value.

Almost at the same time, but independently of each other, Plato and Mang-Tsze deduced the need for commodity production and money economy from the division of labour and the advantages offered by the latter for the satisfaction of human needs.[11] They both upheld the necessity for exchange, and thereby justified the existence of merchants, as being a sort of necessary evil. But both of them remained puzzled by the exact laws governing exchange.

It is significant that the Greek philosophers were more concerned with penetrating *the nature of exchange value*, whereas the Chinese were above all anxious to discover the laws governing *price fluctuations*. There is the outline of a "quantity theory of money" in the *Histories of Nations*, in which Duke Mu, of Chan, declares that if corn is too dear then more copper money must be put into circulation, so that prices (of other goods) may fall; when corn is cheap, and is being used as medium of exchange, prices (of other goods) rise too much and it is necessary again to issue copper money in order to bring these prices down.[12] These theories are copied from one economic chronicle to another, and are to be found in both the *Han-Chou* and the *Suei-Chou*. We likewise find in all these chronicles appeals for a policy of price control, so as to protect the peasant from exploitation by merchants and by dishonest officials.[13] This is the Confucian conception of money and of the state.

It was Aristotle who most clearly defined the dual nature of the commodity, as being both a use value and an exchange value.[14] This distinction was passed on to the Middle Ages, first in the legal theory of Islam and then in the thought of the Christian scholastics. In discussions among Moslem scholars about the problem of income tax *(zakat)* a distinction is made between a tax which falls on land and cattle, confining itself to their *physical nature* (their use value) and which is therefore determined by law once and for all, and a tax which falls on commodities, which are taxed in accordance with their *commercial value* (that is, their exchange value), a tax which thus varies according to the value of these commodities. This distinction clearly shows the mark of a society which combines the village community (in which land and cattle remain inalienable) with petty commodity production in the towns. When, at the highest point of the development of the Islamic Empire, cattle and land in their turn became "articles of trade", this led to grave complications in the tax system.[15]

The origins of the labour theory of value

It is the appearance of the commodity that disturbs the age-old routine of primitive economy. What is the exchange value of commodities? How can it be determined?

Mang-Tsze records that a certain Hsu-Hsung thought that it could be deduced from the purely physical properties of commodities: a certain length of linen material should be exchanged for a certain quantity of silk stuffs, a certain amount of wheat for a certain amount of millet, and so on.[16] He apparently rejected this theory, and, with other Chinese writers (e.g. Lu Chih, in the eighth century A.D.) soon came to the view that *Labour was the only source of value.*[17] But it was only *agricultural labour* he meant, so that these Chinese writers can be truly regarded as the ancestors of the physiocratic school.

Plato came to the brink of a labour theory of value, in a famous passage in the *Republic*:

"Is each one of them [the minimum of four or five men of different trades needed for a state] to bring the product of his work into a common stock? Should our one farmer, for example, provide food enough for four people, and spend the whole of his working time in producing corn, so as to share with the rest; or should he take no notice of them and spend only a quarter of his time on growing just enough corn for himself, and divide the other three-quarters between building his house, weaving his clothes, and making his shoes, so as to save the trouble of sharing with others and attend himself to all his own concerns?"[18]

This passage is remarkable not only because the writer senses intuitively the real nature of the exchange value of commodities, but also because he adopts the only approach that enables one to get to the point: analysis of exchange value *as a social phenomenon*, as the "cement" of a society based on exchange, marked by the division of labour which obliges everyone to work for everyone else, and which thus requires an objective criterion of measurement to which these different kinds of social employment can be reduced in order to make them comparable.

But it is not surprising that the thinkers of ancient Greece were unable to get any further than this point reached by Plato, and to formulate a real labour theory of value. The reason was that in Greece productive labour was essentially slave labour, and for this reason despised.* This disgrace of slavery weighed heavily on the productive application of technical inventions.[19] It weighed especially heavily on ideology, preventing recognition of labour as the only source of exchange value. Thus, Aristotle, in his *Nicomachaean Ethics*,[20] took up Plato's idea according to which exchange arises from the division of labour, and added to it the idea of justice determined by *proportionality*. Exchange is just when it is proportional, that is, when gains and losses are equal on both sides. But proportionality must be measur-

* In a few places, however, in Aristotle's *Politics* and in his *Nicomachaean Ethics*, traces are to be found of a more objective idea of the place of labour in social life and exchange.

able; it necessitates a standard, a common yardstick. According to Aristotle, this is to be found in need *(indigentia)*. If person *A* exchanges article *a* for article *b*, which belongs to person *B*, the satisfaction of A's need must stand to the satisfaction of B's as the value of *a* stands to the value of *b*. With this theory of value, infant political economy had got into a blind alley, since the study of needs takes one into psychology and not into the analysis of socio-economic phenomena.

The petty commodity production of antiquity experienced its freest expansion in the Greek society of the sixth to third centuries B.C. The development of critical thought attained in this period was also not subsequently surpassed. The break-up of ancient society was accompanied by a break-up of theoretical thought. Only when, during the Middle Ages, petty commodity production underwent a fresh expansion in the Italian, Flemish, French, English and German communes did nascent political economy take up some of the threads left by Plato and Aristotle. Through the medium of Arab and Jewish commentators these writers began to be known and studied from the twelfth to thirteenth centuries onward. Soon, the more advanced economic reality of this period compelled the scholastic theologians to go beyond Aristotle's idea of value measured by the intensity of the needs it satisfies.

It was the rationalistic renaissance of the thirteenth century, especially in Sorbonne circles, that stimulated this critical revision.[21]* Little-known commentators and preachers like Robert Grosseteste seem to have prepared this advance. But it was Albertus Magnus and Thomas Aquinas who were actually to make economic science take this big step forward.

Taking up Aristotle's demonstration that exchange is based on proportionality between needs and values, Albertus defined need not as the *measure* but as the *cause* of this proportionality.[23] And he went on to take up, partially, Plato's ideas of "time and trouble", giving it the more exact form of "labour and charges" *(labor et expensae)*.†

When an architect exchanges a house he has designed for shoes produced by a cobbler "a proportion must be achieved (in the value of the two commodities) such that to the same extent that the architect has expended *more labour and charges* in his work than the cobbler, he receives likewise more shoes and money than he gives in houses".[24]

However, Albertus Magnus does not work out a pure labour theory

* Neither Albertus Magnus nor Thomas Aquinas *explicitly* reduced the formula "labour and charges" to labour alone.

† See, on this rationalist and materialist renaissance, its socio-economic origins and its ideological antecedents, Ernst Bloch, *Avicenna und die Aristotelische Linke*.[22]

of value; the intensity of need, which first appears as a condition of exchange-value, later reappears as a measure of value.

With Thomas Aquinas we find essentially the same approach, but with greater clarity and precision in the exposition. If there is no proportionate exchange, the city breaks down, since it is based on the division of labour. And exchange is not proportionate when there is no proportionality between everyone's *productive effort (quod actio unius artificio maior est quam actio alterius).*[25] And in this case, society falls back into a state of slavery—that is, the rendering of unpaid labour, like that of a slave! Aquinas here shows great clarity of thought, since petty commodity production does indeed presuppose *equal exchanges between free owners*, something contrary to the forced labour of serfs or slaves. He advances right to the brink of a labour theory of value formulated in a modern way when he presents Aristotle's quadrilateral of "proportions of exchange" in this way:

"Let us assume that at one corner, A, there are two books, and at another, B, there is one book; and that at C there is a person, Sortis, for example, who has worked for two days, and at D there is Plato, who has worked for one day. Then the ratio of A to B should be the same as that of C to D (that is, A should have twice the value of B)."[26]

At this point, labour time, the amount of labour contributed, is thus presented as the measure of value. Later, Aquinas seems to indicate a retreat to a notion of value measured by need. But his formulations are not very clear (see Section 9 of Book Five) and remain, more than in the case of Albertus Magnus, close to the idea of need (use-value) as *a condition rather than a measure* of exchange-value. It even seems that when he departs from the labour theory of value it is to examine the market prices rather than the value of commodities.[27]

Much has been written about this bold step forward in economic thought made by Thomas Aquinas. Some have expressed doubt that there was any step forward, themselves mixing up use value with exchange value. Others have claimed that this was a mere "youthful error", and that in the *Summa Theologica* Aquinas returns to a purely Aristotelian conception, that is, a subjectivist one, of exchange value.[28]* Schumpeter himself, in his *History of Economic Analysis*, seems to have greatly underestimated Aquinas's contribution. Other writers, however, present him as the real forerunner of Ricardo, if not of Karl Marx himself (e.g. Selma Hagenauer and Edmund Schreiber).

How are we to explain both the progress and the limitations in the economic thinking of Thomas Aquinas? They seem to be due essentially to the objective reality of his age and the specific ideological needs to which Aquinas tried to find solutions. *International trade and trade*

* It appears however, that Aquinas's commentaries on the *Nicomachaean Ethics* are *later* than the *Summa*, so that there really was an *advance* in his thinking on economic questions.[29]

in money had invaded a society characterised by natural economy, on the one hand, and a considerable development of petty commodity production, on the other. Alongside thousands of small producers who *sold* (their products) *in order to buy* (their means of life) were appearing merchants, usurers, and bankers who *bought* (commodities, rents, etc.) *in order to sell at a profit*.

Thomas, being a theologian, had to reconcile economic reality with the teaching of the Church. He had to draw a line between what is "just" and what is not. He could not justify usury, but he could not condemn trade, either. His economic ideology thus reflects the contradictions of a doctrine which emerged essentially from the period in which the Church was a feudal power within a natural economy, and which was then adapted to a new era, based on money economy, into which the Church was trying to integrate itself while striving to safeguard at one and the same time both its creed and its possessions. Thomas condemns the trader who *ad hoc emit ut carius vendat* ("who buys in order to sell dearer"),[30] but justifies the trader who transports goods, or stores them, and makes a legitimate profit *quasi stipendium laboris* ("almost like wages for work performed").

Starting from the tradition of Aristotle, which was based on contempt for slave labour, Albertus Magnus and Thomas Aquinas endeavour to reconcile with this the teaching of the Fathers of the Church, who honour the merits of labour. But it is above all *in order to justify merchant's profit* that they declare that the trader embodies in commodities a value proportionate to his "labour and charges", a theory which had already been upheld by the Talmud[31] and which was gradually taken up by the scholastics of the thirteenth and fourteenth centuries.* Eventually, Thomas seems to have come close to the labour theory of value in order to defend the established order rather than to criticise the capitalism which was coming to birth in his native country.

While other scholastic thinkers, notably Duns Scotus, took up and developed the theory of exchange value based on "labour and charges" *(labor et expensae)*, it was in another society based on petty commodity production, in the Islamic Empire, that a great inheritor of the Aristotelian tradition, Abd-al-Rahman-Ibn-Khaldun (1332–1406,) took up these same ideas and made them more precise, embodying them moreover in a conception of social history which comes close—four and a half centures before Marx!—to historical materialism.

Before Adam Smith, Ibn-Khaldun declares that the wealth of

* It was set forth already by the authors of the *Decretum*, at the beginning of the twelfth century.[32] They appear to have introduced this idea in order to counterpose to trade, condemned altogether, the urban crafts, which they justified. It is worth noting the significant difference in these writers' preoccupations, as compared with those of Albertus and Thomas.

nations lies in the "products of arts and crafts" (commodities).[33] He extends this idea: if the price of wheat is higher in Spain than in North Africa,[34] this is because a longer period of labour and higher costs of cultivation have been needed in order to produce it, and not because foodstuffs are scarcer there.[35] Here, in contrast to Albertus Magnus, Thomas Aquinas, Duns Scotus and the other scholastics, it is no longer the determination of the *just price* but the *explanation of current prices that is sought*. The theory of value is no longer based on ethical criteria but on a synthesis of empirical data and theoretical analysis. For Ibn-Khaldun does not fail to formulate his theory of value in a general form:

> "Everything that constitutes acquisition and funds (of goods) and wealth proceeds only from man's labour . . . Without labour, these occupations (crafts, agriculture, mining) would yield no profit or advantage."[36]

Following this idea through, Ibn-Khaldun glimpses the reduction of skilled labour to simple labour and even has an intuition of a theory of surplus value. He writes, indeed, that the great profits of the "mighty of this earth" represent appropriation of the unpaid labour or gifts [tribute!] of others.[37]

In a society based on petty commodity production Ibn-Khaldun figures as a forerunner. A fresh and deep-going upheaval in the mode of production, in economic *reality*, was needed before man could become *conscious* of all the contradictions inherent in the production of commodities, and in the commodity itself, before political economy could really be born as a science.

The development of the labour theory of value

Between the fourteenth and seventeenth centuries the theory of value was to mark time, or even to retreat, as compared with the progress achieved by Albertus Magnus, Thomas Aquinas, Duns Scotus and Ibn-Khaldun. But the embryonic political economy of that period did not stop developing. This development took some criss-cross paths before covering the short distance separating Ibn-Khaldun from William Petty. Owing to this detour, it became enriched with many new problems, it came closely to grips with the whole of the relevant matter, and took cognizance of a mass of empirical data which Ibn-Khaldun and Thomas Aquinas lacked, not to mention Plato and Aristotle.

From the last of the scholastics through the mercantilists and the physiocrats, it was the problem of the *nature of wealth* that preoccupied economists.*

They were led to this problem through studying the currency prob-

* The first economists who made systematic statements were public administrators who presented something like "reports on the state of the nation".[38]

lems and disturbances caused by the debasement of the currency practised from the fourteenth century onward, on a large scale, by various European rulers. The influx of precious metals in the sixteenth century and then the price revolution which it caused gave rise to a number of questions concerning the relationship between a nation's wealth, its trade and production, the stock of precious metals in its possession and its trade balance, the ratio between public expenditure and general prosperity, etc. Many mercantilist writings have a remarkably modern ring, as Keynes observed,[39] less by their methods of investigation than by the *clearly pragmatic nature* of their analyses and conclusions.

To the question "what makes the wealth of nations?" the mercantilists reply, successively: population; influx of precious metals (Serra), that is, a credit balance of payments; a favourable trade balance; trade and manufactures; the fertility of the soil.[40] The example of Spain which, owing to the deficit in its balance of payments, was eventually impoverished by its colonial conquests, despite the enormous treasure of precious metals which flowed in every year; the example of the Netherlands which, thanks to their "trade" and their "industry" soon became the richest nation in Europe, gave inspiration and confirmation to the mercantilist theories. Most of the scholastics of the fifteenth and sixteenth centuries—especially the Spaniards, such as Molina—specialised in justifying trade, and their theories of "the just price", and of interest which is justified in so far as the trader "works", link up with the mercantilists who acknowledge that the "current price" is the "just price". The "current price" depends either on the amount of money (Locke), or on the relation between supply and demand (Barbon), or on need, or on all these factors taken together. The distinction between *current price* and *just price* is already implicit in Thomas Aquinas's *Summa Theologica*, in which the "current price" *(pretium datum)*, as against the "just price", is determined by *copiae et inopiae* (plenty or scarcity, that is, supply and demand).[41] It should be added that several mercantilists, such as the Spaniard Pedro Fernandez Navarrete, and even a pre-mercantilist like the Neapolitan Carafa, formulated ideas which come close to the labour theory of value.[42]

It is unjust to the mercantilists to consider them mainly in relation to the protectionist measures which they inspired and justified in order to ensure a favourable balance of payments for Britain. Actually, the mercantilists were reacting against the conservative tendency of Jean Bodin or Stafford, who wanted to go back to the strict regulations of the Middle Ages in order to stop the damage being done by the price-revolution of the sixteenth century. Typical representatives of mercantilism like Thomas Mun *(England's Treasure by Foreign Trade)* declared against mediaeval regulation and in favour

of *freedom of internal trade*. If they called for protectionist measures, the development of the merchant navy, the restriction of imports and the expansion of exports, this was because for them the accumulation of precious metals within the country was already synonymous with the accumulation of a "profitable stock", that is of *capital*, and of capital which must be made "to work" (i.e. that must be invested) in order to increase the national wealth.[43]

The mercantilists' ideas admirably reflect the requirements and the limitations of a capitalism which remains basically that of a *merchant* bourgeoisie. But they were already coming close to a more finished labour theory of value, going beyond considerations of the intensity of needs or of supply and demand. Some mercantilists did not restrict themselves to noting that it is the "market" that "determines" prices: behind the bewildering fluctuations in these prices they sought a *constant* which would explain the mystery.

In the seventeenth century William Petty (*Political Arithmetic*, 1631) and Boisguillebert *(Détail de la France)* examine most systematically the problem of exchange value, and offer the two solutions which, in the eighteenth century, were to define the two streams in political economy once it had become a scientific system, namely, the British classical school and the French physiocratic school. For the founder of the physiocratic school it is agricultural labour that constitutes in the last analysis the sole source of value. For William Petty, however, it is labour as such that is the source of all exchange value:

"Suppose a man could with his own hands plant a certain scope of Land with Corn . . . Let another man go travel into a country where there is silver, there dig it, refine it, bring it to the same place where the other man planted his corn . . . I say, the silver of the one must be esteemed of equal value with the corn of the other" (if the same time be spent on producing each): "let a hundred men work ten years upon corn, and the same number of men, the same time upon silver; I say, that the neat proceed of the silver is the price of the whole neat proceed of the corn."[44]

The idea of "natural" (or "intrinsic") price, as against "current" (or "market") price emerged slowly in the course of the seventeenth and at the beginning of the eighteenth century,[45] in step with the emergence of another idea, that of the "natural rent" which all capital, or, rather, all labour, can produce over and above its own costs of maintenance. It is significant that Petty and all the other early writers, as also the physiocrats, speak only of "rent" and not of profit. The social surplus-value still had, essentially, a purely *agricultural* origin. But political economy thus advances towards the idea which determines the "intrinsic price" of commodities on the basis of their cost of production, to which is added an "average rent" (in Petty's case, the average yearly rent of a field over a seven-year period).

The first mercantilist writers described economic life and arrived at the "national rent", or "national dividend" as a result of the *circulation* of commodities. But with the growth in manufacturing production and the technical revolution in agriculture during the seventeenth and eighteenth centuries, the *production* of the social surplus product became the focus of attention. Thus, there is more than one common feature between Petty and his "natural rent", on the one hand, and the physiocrats on the other, who thought they had discovered the origin of the entire social surplus product in the difference between the product of the peasant's labour and his own cost of upkeep. It seems, moreover, established that the most representative writer among the physiocrats, Quesnay, was influenced by ancient Chinese economic thought, which postulated that agricultural labour alone creates values.[46]

The physiocrats' endeavour to determine the origin of all social incomes is an excellent reflection of the French economic reality in the first half of the eighteenth century. The incomes of the noble owners of land were indeed merely the surplus produced by the peasants. As for the crafts and manufactories, they mainly worked for these nobles, since they still mainly produced luxury goods![47] The idea that only the labour of the peasants produced new value led to an extremely practical proposition, namely, that only the nobles, being the appropriators of the surplus, of the "national rent", ought to pay taxes. On this level too, the physiocrats encountered Petty, who, in less advanced economic conditions, had arrived at similar conclusions.[48]

Petty and his successors—John Locke, Richard Cantillon, James Steuart and many others—went further than the physiocrats in recognising the property possessed by all labour of creating exchange value. But they did not discover a true *common measure of value*. Labour and land, two sources of value, this was the contradictory conclusion to which they came, and which they strove vainly to reconcile.* This contradiction reflects the actual situation of capitalist economy in this period, in a state of transition between a predominantly agricultural economy and one based on industrial production.

In his famous book *The Wealth of Nations*, Adam Smith provided the first classical exposition of all the economic theories that were current in his day. He owed much to his British and French predecessors, and often merely repeated more precisely what they had already said. But his analysis of the commodity, of the division of labour, of capital and value, of simple and complex labour, constituted for the first time a coherent system. It was he who first systematically formulated the labour theory of value, which reduces the value of com-

* In reality, theirs was a simple costs-of-production theory, costs varying with the respective shares of labour and "land" (i.e. raw materials).[49]

modities to the amount of labour contained in them, and which endeavours to support this theory by a number of proofs, including historical ones.

Nevertheless, Adam Smith remained a prisoner of his period. His system of political economy involves three main contradictions which, in the last analysis, can all be attributed to the imperfections in his value theory.

First, he does not clearly distinguish between "labour" and "labour-power". In fact, his theory of value is more a theory reducing the value of commodities to the *costs of labour* than a theory which reduces this value to the expenditure of amounts of labour. Though he keeps on repeating that "labour alone . . . is alone the ultimate and real standard by which the value of all commodities can at all times and places be estimated and compared",[50] in the last analysis he reduces "labour" to a worker's wages, that is, to the value of the corn needed to feed this worker.* This results in an obvious vicious circle: on the one hand, the value of commodities is determined by the labour they contain; but, on the other, the "value of the labour" which they contain is determined by the value of the corn that feeds the worker. This corn is, however, a commodity in its turn, its value being determined by the labour it contains. And so on. The "value of labour" is thus determined by . . . the value of labour!

Going on to break down the value of each commodity into wages, ground-rent and profit, Adam Smith quite correctly reduces these three elements to *living human labour*, of which in the last analysis, they are products. But he thus misunderstands the dual function of labour-power, that of creating new value and that of conserving the value of the means of production it uses. Thereby, his ideas about *reproduction* are spoilt from the start: the problem of the accumulation of capital in the form of increase in the stock of capital goods eludes him, and also even more completely, the problem of the division of commodities into two great categories: capital goods and consumer goods.

Finally, Adam Smith regards profits and ground-rent as two *different* entities, which make their appearance as the incomes of two different social classes. But though he realises that rent increases only at the expense of profits (if wages are at their lowest), and though in passing he reduces these two kinds of income to a single socio-economic origin, the social surplus product, he does not treat this surplus product as a category distinct from the forms in which it manifests itself. Indeed, he asks no questions about the origin of capitalist profit, contenting himself with noting that if the capitalist got no profit on his capital he would restrict himself to utilising it for the purchase of a piece of land that would bring in a rent. He does,

* William Petty had already written that "the day's food of an adult man, at a medium, and not the day's labour, is the common measure of value".[51]

however, recognise that this profit is a part of the new value created by the worker.

All these contradictions in Adam Smith's theory have a common source: this economist remained a prisoner of his time, which was in the main *prior* to the industrial revolution.[52] For this reason, the problem of the depreciation of fixed capital eluded him; for in domestic industry men mainly worked with instruments of production which were passed down from father to son and not yet periodically replaced under the whip of ceaseless technical revolutions. This is also why he was unable to grasp the real nature of value, since he became aware of it primarily in the process of *circulation of commodities produced by their owners*.* It was only when labour power had itself become a commodity, and that, moreover on a big scale, that it became possible to penetrate the secret of value.

Climax and break-up of classical political economy

With David Ricardo, classical political economy finds its perfected bourgeois form and nears the brink of its inevitable break-up. In his *Principles of Political Economy* (1817), Ricardo starts from the very point at which Adam Smith ended. The work begins with this famous passage: "The value of a commodity, or the quantity of any other commodity for which it will exchange, depends on the relative quantity of labour which is necessary for its production, and not on the greater or less compensation which is paid for that labour".[53]

Although, in the process of criticising Adam Smith, Ricardo soon arrived at the distinction between labour and labour-power, he did not draw from this distinction the conclusions which were to enable Marx to find the answer to the basic difficulty of any labour theory of value. Unlike Adam Smith, he does not make any dichotomy between products of labour and products of "accumulated stock" (capital), but explains that living labour introduces into the value of the raw material which it transforms part of the value of the instruments of labour which it sets in motion. Capital itself thus has a value which is ultimately derived from the amount of labour needed to produce it. Consequently, a real, consistent labour theory of value is thus set forth, in which the *amount of labour expended* in production (measured in hours of labour) becomes *the sole measure of exchange-value*.

Professor Sraffa has convincingly shown that, contrary to a generally accepted view, Ricardo did not modify his conception of value in the last years of his life.[54] What does emerge, however, from his last writings is uneasiness and misgiving about the *relations between value and price*. Ricardo had soon discovered that commodities were sold at prices which were only *approximately* equivalent to the amount of

* In Book I, Chapter 5 of *The Wealth of Nations*, the whole of Adam Smith's argument is based on examples taken from petty commodity production.

labour needed to produce them: "The relative cost of production of two commodities is nearly in proportion to the quantity of labour from first to last bestowed upon them".[55] This approximateness results, in Ricardo's opinion, from the fact that the *composition of capital* (what Marx was to call the organic composition of capital), its greater or less durability, that is, the division of it between fixed capital and circulating capital, also has an influence on value. According to Ricardo it is a matter of contradiction in the facts themselves—but a contradiction to which he was never able to find a solution. It was Marx who solved this contradiction through his theory of the equalisation of the rate of profit and the formation of prices of production.

It was not accidental that Ricardo, while formulating a classical theory of value, did not manage to formulate a harmonious theory of prices. The reason is that the idea of an average rate of profit, and the exact calculation thereof, are inseparably linked with the idea of surplus value and surplus labour, unpaid labour, that is, with the exposure of the *exploiting character* of the capitalist mode of production. With Ricardo, classical political economy had reached its most advanced stage of development. In its progressive and revolutionary struggle against landed property, this political economy had exposed the parasitic nature of all income not derived from labour. It had called for the widest freedom of production and exchange, as the only way to lower the costs of production of commodities, and thereby to increase the wealth of nations. In the famous debate between Ricardo and Malthus, the spokesman of the parasitic classes of society, this historically progressive role of the labour theory of value comes out clearly.*

But at the very moment when the British bourgeoisie was dealing its last triumphant blows against landed property, on the eve of the repeal of the Corn Laws and the victory of Free Trade, its revolutionary role came to an end. The British working class had boldly raised its head, and had received in reply the slaughter of Peterloo. The British bourgeoisie was thenceforth disposed to concern itself more with the defence of its own privileges than with the struggle against the privileges of the landed proprietors. Its conservative role became increasingly more important than its revolutionary role.

Ricardo formulated a theory of the tendency of the rate of profit to fall, but he deduced it not from the laws of accumulation of capital but from his theory of differential ground rent, diminishing returns from the soil, increasing costliness of foodstuffs, and the increase in nominal wages resulting therefrom.[56] Starting from the level attained by David Ricardo, economic science could not advance further, except to the peak to which Karl Marx was to lead it. In order to reach this

* On Malthus's theory of population and wages, see Chapters 5 and 9.

peak it was necessary at once to expose the apologetic character of the system and to formulate a coherent theory of surplus-value, of profit, of the equalisation of the rate of profit, of the tendency of the rate of profit to fall, of the crises and contradictions from which the capitalist order suffers. It was necessary also to show the historically limited nature of a system which was doomed to give way to a higher social system. Those who could not or would not follow that path were compelled to retrace their steps and descend from Ricardo's heights into the marshes of eclectic and vulgar political economy.

Post-Ricardian political economy thus appears as a phase of climax and break-up of the classical system, a climax and break-up realised *positively* by Marx and Engels, and negatively by the epigones and eclectic critics of Ricardo, those whom Marx called the "vulgar economists".

Marx's contribution

Marx transcended Ricardo in three ways. Through his working out of the theory of surplus value (his greatest achievement in the economic field, as he himself declared: see his letter to Engels, 24 August, 1867[57]) he made possible a comprehensive synthesis of sociology and economics and discovered the underlying law of all historical evolution, the law which *explains* the class struggle. Through his working out of the theory of the equalisation of the rate of profit, of the formation of prices of production, and of the tendency of the rate of profit to fall, Marx made it possible to transform an economic system hitherto seen as essentially static into a dynamic system, the chief laws of development of which he revealed. Through his working out of a theory of the reproduction of capital and of the national income, and through his adumbration of a theory of crises, he simultaneously achieved a first practical synthesis of micro-economic and macro-economic ideas.

The decisive step forward achieved by socio-economic thought through Marx was indeed the reduction of the separate categories of "profit", "rent" and "interest" to a single basic category, treated as such, the category of surplus value, or surplus labour.[58] Thanks to this reduction, which Adam Smith had merely glimpsed and which Ricardo had begun to undertake but had failed to realise, Marx was able to reveal in its turn the nature of this surplus value, which is only a particular, monetary form of the universal historical category of the *social surplus product, surplus labour.* Thenceforth, the modern proletarian could be seen as merely the heir of the mediaeval serf and the slave of the ancient world, and his exploitation by the capitalist class presented no further mystery. By revealing the economic secret of surplus value—the difference between the value of *labour-power* and the value *created by* labour-power—he was able to resolve all the

contradictions of the labour theory of value and establish economic theory on a coherent scientific basis.

By revealing the social secret of surplus value—private appropriation of surplus value, of unpaid labour—Marx was able at one blow to grasp what is *rational* and *inexorable* in the behaviour of capitalists (striving to lengthen the working day, to reduce costs of production by developing the use of machinery, to accumulate as much capital as possible in order to "release" as much labour as possible, etc.) and also what is logical and inevitable in the workers' reactions to this. He has often been reproached with formulating an economic theory based on moral indignation. The truth of the matter is that his rigorous economic analysis made it possible for the first time to base moral indignation on firm scientific foundations.

Thanks to his theory of surplus value, Marx carried through the difficult task of reducing value to price of production, thereby laying the basis for an harmonious synthesis of micro-economic and macro-economic theory. *The same analysis* embraced both each commodity taken separately and the social product as a whole.

True, Marx was not the first to work out a general formula for the circulation and reproduction of the social product. It was Petty, King, Boisguillebert, Richard Cantillon (the real father of the famous *Tableau économique*) and Quesnay who were the pioneers of macro-economic investigation. But whereas with Quesnay the formula of social reproduction is based on a conception limited by the conditions of his time, the idea that only the labour of the peasant produces a surplus, a social "rent", Marx bases his reproduction formulas on the idea of the *accumulation of capital*, the great driving force of capitalist society. Whereas all other economists, contemporary or to come, were prisoners of their epoch, if not behind their times,* Marx, like every real genius, was in advance of his age. Having grasped the driving forces of the capitalist mode of production, he developed his analysis to its logical conclusion, and was thus able to glimpse the dynamic, at once promising and frightening, of the uninterrupted revolutions in technique which did not, in fact, occur on a world-wide scale until after his death.

Just as Marx had forerunners who had had a sort of presentiment of the theory of surplus value, such as Thompson, Hodgkins, and especially Richard Jones,[60] so also he was not the first to formulate the law of the tendency of the rate of profit to fall. This law comes to us from Malthus and Ricardo. But they based it on the "law" of diminishing returns from the *soil*, whereas Marx was the first to deduce this law from the tendencies of capital accumulation, linking it directly to the labour theory of value: if living labour is the sole creator of

* Cf. Alvin Hansen: "The history of economic thought reveals again and again a lag in the development of theory behind the march of events."[59]

value, then the reduction in the share of this labour (wages) in total capital, through the growth in the share of constant capital, necessarily reduces surplus-labour relatively to capital. Thereby also micro-economic and macro-economic analysis were closely linked one with the other: it is in the secret of the commodity itself that are to be discovered all the contradictions which doom the capitalist order to its inescapable fate.

Finally, without dealing with the problem of periodical crises in a systematic way—he had reserved this problem for a subsequent chapter of *Capital* which was never written—Marx was the first economist to give it a central position in the laws of development of the capitalist system, to grasp it as the outcome of contraditions *inherent* in the capitalist mode of production and not as the effect of external causes, whether accidental or "natural". True, economists contemporary with him such as Malthus, Sismondi, J. B. Say, MacCulloch, and Ricardo himself had from time to time touched on periodical crises. But none of them had incorporated a theory of crises in the *logic* of his economic system. In Marx, however, all the data and material for constructing a modern theory of crises are to be found. This is so true that a present-day economist, Wassily Leontief, has declared that all modern crisis theories are derived in one way or another from Marx.

Attacks on the labour theory of value

In Marx's case, classical political economy was surpassed in a positive way. In that of the school known as the "vulgar", or eclectic, economists, it was to be surpassed in a negative way. Sensing that the ground would slip from under their feet if they clung to the labour theory of value, most of Ricardo's successors who did not go forward in the same direction as Marx retreated to the position of Adam Smith, or else to a purely eclectic and superficial conception of value.

The first reaction against classical Ricardian political economy was given expression by Malthus. This consisted, in the last analysis, in a return to the confusion between labour as the essence of value and labour-power as the creator of value which marked economic thinking from William Petty to Adam Smith. At the same time, in order to explain profit, Malthus returned to the banal notion that this is merely an extra added to the cost price of goods. This notion dominated the writings of Jean-Baptiste Say, the prototype of what Marx called the school of "vulgar" economists—a school characterised by the abandonment of all attempts to systematise and synthesise, an essentially *psychological* theory of profit being "stuck on" to an eclectic theory of value which confined itself to describing the well-known "factors of production".

J.-B. Say, as a populariser of Adam Smith, already worked out in crude form all the answers which bourgeois political economy has

found, right down to our own day, to the problems of surplus-value and profit. These two are, moreover, curiously and eclectically mixed up together in his writings. On the one hand he has a theory according to which surplus value is *produced* by capital, in the material sense of the word; on the other, he has a theory which sees surplus value as compensation received by the capitalists for the wear and tear suffered by their capital when it is used. These two theories gave birth to the *theory of abstinence*, first formulated by Nassau Senior.

All capital, it is said, starts with a sum of money which might have been consumed. The capitalist thus sacrifices immediate consumption in order to *save* the money, and he thus makes possible its use in order to buy instruments of labour which do not directly serve consumption. This sacrifice, this saving, must be compensated, and the compensation is interest (surplus-value). As for entrepreneur's profit, this is nothing but the wages paid him for the labour of management, without which no production could take place.*

Carried to its logical extreme, the theory of abstinence obviously comes to an absurdity. When Keynes speaks of: "the sacrifice which he [the entrepreneur] incurs by employing the equipment instead of leaving it idle",[61] we are clearly in the realm of the unreal, since no entrepreneur sacrifices anything when he uses equipment which he has bought for the very purpose of using it; there is no "sacrifice", loss, "abstinence" for the entrepreneur except in so far as the equipment is *not* used.† The theory of abstinence is meaningless except so far as it applies exclusively to *money-capital*. Any application of it to other forms of capital is absurd.

But even in its refined form, applied exclusively to money-capital, the theory of abstinence explains nothing at all. Does Mr. Morgan really make a "sacrifice" when he "abstains" from consuming 100 million dollars a year in the form of champagne and gold knick-knacks, and prefers to invest this money? Is not the truth of the matter rather that he invests his capital because he cannot consume

* Since the separation of the technical manager of an enterprise from the member of the board of directors has followed that of the owner from the entrepreneur, Schumpeter has explained that the efforts thus rewarded are not labour of technical management but those of "foresight regarding the state of the market".

† Keynes himself, moreover, elsewhere refutes the theory of abstinence when he points out that hoarding money, which the miser carefully *abstains* from consuming, brings in no interest. But he does this only to replace it with another equally mistaken, conception, that which sees in interest: "the reward for parting with liquidity". As if it were a "sacrifice" to lend inactive capital, under a capitalist régime! As if the real "sacrifice" for the capitalist were not that of keeping his money in liquid form! This theory of Keynes's is borrowed from the world of stock-exchange speculation, and not that of industrial life, on which, however, all the other spheres of activity of capitalist economy are based.

it, because this capital exceeds by a very wide margin what he requires to meet his needs?*

In despair, the supporters of the abstinence theory then fell back on a mythical epoch, lost in the mists of the past, during which the initial "stock of capital" was built up through some people "saving part of their income" whereas others wasted theirs.[63] But study of the origins of money capital shows that this epoch never existed. Indeed, it is not a minority of "thrifty" people who are to be found at the source of the social surplus product, but the minority of *usurpers* who took from the producers part of their surplus, whether by agreement or by force, who are the ancestors of modern capitalism. There was "abstinence", all right, but it was the "forced abstinence" of the producers, and not of the "entrepreneurs".†

In the end, the "vulgar" economists (with the exception of the neo-classical school of Böhm-Bawerk) are satisfied with recording the "facts", that is, that there is the owner of capital, the worker, and the landowner, each of whom draws an income from current production, because each of them is "indispensable" or "scarce".[65] The degree of "scarcity" is supposed to be precisely shown by the price paid to the given "factor of production".‡ Here is an obvious begging of the question. One starts by *assuming* that "incomes" are allocated according to this criterion, and one "confirms" this assumption in the analysis, without ever asking whether these "factors" are actually *creators of value.*

In reality, fixed capital "creates" no income, any more than land does. A machine to which the power of living labour is not applied, directly or indirectly, produces no value. The allocation of incomes among capitalists, workers and landowners takes place on the market. But the market is characterised by an *institutional inequality*, without which the capitalist régime could not last a single day: the *monopoly*

* A neo-classical critic has replied to Keynes's downright argument that "saving means going without a dinner": "No, saving usually means going without *a second dinner* on the same day". This is well said and quite correct. But is "going without a second dinner on the same day" really a "sacrifice" which calls for "compensation"?

† A contemporary supporter of capitalism, David McCord Wright, declares that the high level of wages in America is due to the great amount of equipment employed, and that this mass of equipment is the product "of the *not-consuming* by some people which enabled men to keep working on machine tools rather than satisfying immediate wants".[64] McCord Wright forgets that, far from making "sacrifices", the capitalists who ordered the original machine tools did this in order to make huge profits at the expense of the craftsmen, the real victims of abstinence, whose heirs, moreover, are not the recipients of capitalist profit . . .

‡ Why do entrepreneurs draw an income higher than that drawn by workers? "Because the type of service which the entrepreneurs contribute to production is scarcer than that contributed by other industrious persons."[66]

of the means of production in the hands of one social class; the *obligation* to which another social class is subject to sell its labour-power, in order to be able to exist. The "prices" of the factors of production correspond to this inequality of market conditions. They have nothing to do with the theoretical problem of the creation of value.

Some may retort: granted that this is so, why should we not be satisfied with this critique of the institutional conditions of inequality on the market? Why should we seek some mysterious "intrinsic value", echo of the old "natural price", lying behind actual prices, market prices? *What* does this labour theory of value add to the concrete analysis of capitalist phenomena, or to the analysis of its laws of development, which can just as well be undertaken on the basis of prices of production?

The endeavour to find a simple category which provides the ultimate explanation of the structure of internal logic of phenomena is not a mere intellectual exercise. It is the way in which all scientific thinking proceeds, in all fields of knowledge. Chemists try to reduce all substances to a molecular structure. Physicists reduce molecules to atomic structures, made up of electrons or other infinitely tiny particles. Linguistics has become a science with the discovery of its constituent elements (phonemes). Every discipline which declines to look for comparatively simple elements behind apparent forms dooms itself to pure empiricism, remains confined to the surface of things, and is incapable of grasping them in their process of development.

By discovering this constituent element, value, economic science becomes possessed of a key for the solving of a number of practical problems. Without the labour theory of value, no theory of surplus value, and therefore no possibility of tracing to a single source profit, interest and ground-rent, no possibility of understanding the mysterious fluctuations of agricultural production during the last 150 years. Without the labour theory of value it would be impossible to understand the long term tendencies of prices, which are ultimately determined by the amounts of labour needed to produce commodities.

The theory of prices of production—of "costs of production"—itself becomes purely empirical and ceases to explain anything if the labour theory of value is abandoned.* Because, in Marx's calculations, the equalisation of the rate of profit shares out a body of surplus-value *previously created*, the size of which is explained by means of the labour theory of value. When this criterion is abandoned, that is, when the total sum of prices of production has to equal the total sum of

* This is notably the case with the majority of present-day theoreticians, who content themselves with seeing profits as a "differential", a "gap between costs of production and selling prices",[67] without asking themselves about the origins of this "differential".

value, one is driven to deducing the amount of profit from the fluctuations of supply and demand—with a thousand refinements—and so finds oneself left with prices which oscillate in a vacuum instead of around a pre-established and given axis. The consequences of this are felt especially in the field of the calculation of national income and the study of possibilities of economic development, above all for the under-developed countries.* In science, any refusal to face fundamental theoretical problems always has to be paid for. The "utility" of keeping the labour theory of value, that is, of a coherent economic system forming a whole, is thus fully demonstrated.

It remains to deal rapidly with some of the most frequently met objections to this labour theory of value:

1. By declaring that all commodities have a common property, that of being the product of human labour, Marx is said to have deliberately excluded from the list all commodities which are not products of human labour, but free gifts of nature (land, minerals, oil-wells, special sites, etc.).[68] Or, in other words: "If labour were the cause of value, value would be absent where labour is absent".[69] Indeed, "nature's gifts" have, in fact, no value, except where they are the product of real human labour (the Dutch and Flemish *polders*, irrigated and reclaimed land, drained marshes, etc.). If they sometimes have a price, this results from the establishment of an artificial monopoly of a social kind, restricting ownership of them. When this monopoly is absent, the "price" vanishes along with it.† As for minerals, they are without value only in so far as they remain underground. But the *labour* of extracting them creates value all right, just as does the *labour* needed to transport them to where their consumers are concentrated.
2. By declaring that all commodities have a *single* common property, that of being products of human labour, Marx is said to have eliminated from his reasoning a series of other properties common to all commodities: that of being products of nature, of being scarce, of being subject to the law of supply and demand, and so on.[70] Marx nowhere, in fact, declares that the *only* property common to commodities is that they are products of human labour. He stresses, along with Aristotle and all the chief economists, ancient and modern, that commodities all have in common use-value and exchange-value. But whereas use-value—a particular link between the object and the *individual*—can obviously not be an objective link, a common measure usable *by the buyer and the seller at once* (since, by definition, the commodity sold has no utility for the seller at the moment when he sells it!), exchange-value must be measurable by a property *common to all the pro-*

* See Chapters 10 and 13.

† See examples given in Chapter 9.

ducers who appear on the market, a *social* property which makes it possible to weave a fabric of relationships between all these producers. The scarcity of commodities is a pre-condition for producing them; but it is not commensurable in any exact way as between two commodities. It can at most be deduced from the allocation of the total labour-time available to society between the two branches of social production concerned. And this indirect procedure thus brings us back to the property of commodities as human labour, universal and abstract, in congealed form, pieces of the total labour-time available to society; that is, it brings us back to the labour theory of value.

3. If labour were the only source of value, equal labour would produce equal value. Experience, however, points to the contrary: the same labour, producing two pieces of meat coming from different parts of an ox, results in two different values.[71] First, the critics mix up price and value; market prices vary around value but are not identical with it. Next, they mix up individual labour and *socially necessary labour*. It is not the individual's expenditure of labour that creates value, but only the expenditure of labour *which is recognised as socially necessary by the market*. That depends on relative levels of productivity, and we thus find ourselves face to face with the problem of the equalisation of the rate of profit.*
4. If labour were the only source of value, the value of a commodity ought to remain unchanged, since the labour incorporated in it has been given once for all. Yet the value of commodities changes with time. It may fall (as in periods of crisis) or it may rise (as happens with works of art, etc.).[72] Once again, the critics here mix up value and price. *Monopoly prices* may depart very far from value,† as is the case with the prices of works of art. Commodity prices may fall sharply during a crisis. That does not at all mean that some other, mysterious factor is suddenly determining their value. It simply means that the market has shown *a posteriori* that a large proportion of the labour expended to produce these commodities was wasted, from the social standpoint, does not constitute socially necessary labour, and thus receives no equivalent from society in the act of exchange.

The marginalist theory of value and neo-classical political economy

Eclectic political economy failed, however, to give complete satisfaction either to scholars who continued to try to answer the questions

* See Chapter 5, section on "The equalisation of the rate of profit in capitalist society".

† See Chapter 12.

which previous generations had bequeathed to them or to the bourgeoisie itself, which found itself constantly exposed to the risk that, starting from the *popularisation* of Ricardo's ideas, economists might pursue some point in the direction of socialism (as happened with John Stuart Mill). In order to neutralise the "socialist danger", which was felt with especial keenness after the revolution of 1848, and above all after the Paris Commune (1871), the entire structure based on the labour theory of value had to be demolished. This was the great turning-point of bourgeois political economy, towards *the marginal theory of value*, which was prepared so early as 1855, independently of each other,[73] by Hermann Gossen and Richard Jennings, and which culminated in the British (Jevons, 1871), Viennese (Menger, 1871) and Swiss (Walras, 1874) neo-classical schools.

As compared with the eclectic and vulgar conceptions, the neo-classicists were distinguished by a greater methodological rigour. Like the classical economists they strove not to leave any economic phenomena unelucidated, not to gloss over any question, to provide the material for the building of a coherent structure. The apologetic nature of this structure is shown not so much in the conclusions as in the methodology and the initial hypotheses. The system is coherent, but it is divorced from reality, which it fails either to grasp statistically or *a fortiori*, to explain in its laws of development.

From Petty to Ricardo and Marx, every theory of value was *objective*, that is, its ultimate starting-point was *production*; value was identified with cost of production, or revolved around it. The influence of demand upon value, as an independent variable, was denied; and even when it was indirectly taken into consideration, it appeared only as an indirect function of production itself, since all incomes were regarded as having been created in production. Indeed, the entire classical theory was *oriented* for this reason towards a synthesis between micro-economic and macro-economic conceptions, a synthesis which Marx alone proved capable of achieving successfully.

The neo-classical school, however, approached the problem in an altogether different way. It was a school of pure micro-economics, considering that value can and should be determined for each commodity taken separately. It regarded this value no longer as a function of cost of production but as a function of the independent influence of demand upon cost of production.* The separation of exchange value from use value, the starting-point of the classical school, was questioned. It was declared, on the contrary, that exchange value is essentially a function of use value, of the utility of the given commodity.

* Alfred Marshall tried to make an eclectic synthesis between a theory of value starting from the production side and one starting from "independent demand".

But how is this utility to be measured? The neo-classicists here came up against a difficulty which all their predecessors had encountered, from Aristotle to Jean-Baptiste Say, and including both the French monk Buridan and the encyclopaedist Condillac. If I ask somebody: "What is the utility of this knife to you?" he will reply: "A very great utility", or "I use it a lot", or else "I have no need of it at all". Nobody answers a question like this by stating a *quantity*, any sort of measure of "use-value". Resigning themselves to not being able to express use-value quantitatively, the marginalists fell back on a quantitative expression of the *needs* which use-value has to meet. They laid down individual scales of needs; this is why this school has been correctly described as being *subjectivist*, since its starting-point is purely arbitrary, subjective. As Rudolf Hilferding put it, whereas Marx and the classical economists start from the *social* character of the act of exchange, and regard exchange value as an *objective* link between owners (producers) of different commodities, the marginalists start from the *individual* character of needs, and regard exchange-value as a *subjective* link between the individual and the thing.[74]

Nevertheless, the quantitative expression of needs is not enough to overcome the difficulty. A man obviously has more need of bread and water than of a diamond. Yet a diamond has a higher exchange-value than that of bread. A man has even more need of air, which normally possesses no exchange value. This is why the neo-classical theory states: it is not the intensity of the need in itself, but the intensity of *the last fragment of need not satisfied* (of the *marginal* utility) that determines value.

Starting from this general idea, the neo-classical school worked out a series of curves the intersection points of which are supposed to show conditions of equilibrium: curves of supply and demand, determining equilibrium prices; curves of indifference and of prices determining the quantities of commodities demanded at particular levels of income; curves of marginal costs, determining for entrepreneurs the levels of production which will guarantee them the highest profits; a curve of wages offered and of "disutility of labour", determining the demand for employment; a curve of interest rates offered and profit expected; determining the volume of investment; a curve of the accumulated amount of capital and of the mass of money-capital available, determining the rate of interest; and so on. In the end, the whole system is in perfect static equilibrium, "profit" itself having disappeared, at least in Walras's work, since under conditions of total competition the value of the marginal product—which determines the value of all production—is dissolved into depreciated capital, wages, interest and ground-rent.[75]

A *marginalist theory of general equilibrium* is thus perfected, which one writer has summed up as follows:

"Under conditions of competition, we are told, the entrepreneur increases the employment of each factor of production to the point at which the marginal productivity of this factor (net product obtained thanks to the last unit employed) is equal to the price of this factor on the market, and he increases his production to the point at which the marginal cost of the product (cost of the last unit) is equal to the price of the product.

"In a situation like this, the satisfactions obtained by the consumers are at their highest because any transfer of a factor of production would result in a reduction of the 'value' created by this factor. In the case of a worker, for instance, he is producing in an hour, where he is working at this moment, a 'value' equal to his wages. If he were to be transferred elsewhere, he would produce a little less; in fact, he would be 'added' to a group of workers whose marginal productivity is already equal to their wages, so that his own productivity would necessarily be a little less."[76]

Eric Roll is right to criticise the mechanistic thesis of Bukharin, according to which the marginalist school reflected the special interests of a new stratum of *rentiers* which had made its appearance among the bourgeoisie.[77] But Bukharin was right when he stressed that the marginalist school *adopts* the point of view of the *rentier*, or, more precisely, of the capitalist who has withdrawn from the sphere of enterprise, for this school does start from *individual consumption* rather than *social production*, which had been the starting point of the classical economists and of Marx.[78] It is not accidental that the examples used by the founders of the neo-classical school are nearly all drawn from luxury production.

The special nature of the neo-classical school is further emphasised by the fact that it was for a long time unable to determine the marginal value of capital goods. In the end it managed to do this only by introducing, with Böhm-Bawerk, the notion of a "roundaboutness" of production which becomes more and more intensified as capital goods increasingly enter into the process, a "roundaboutness" which has to be "paid for". It is, moreover, unable to explain how, from the clash of millions of different individual "needs" there emerge not only uniform prices, but prices which remain *stable over long periods*, even under perfect conditions of free competition.* Rather than an explanation of *constants*, and of the basic evolution of economic life, the "marginal" technique provides at best an explanation of ephemeral, short-term variations. It is significant that in Walras's fundamental work he starts from the example of sellers and buyers

* It does not explain, either, why the price of bread is the same for hungry unemployed men and for millionaires, though the "marginal utility of an additional unit" is a thousand times more for the former than for the latter.

"inclined to go in for bidding", that is, to stock-exchange speculators.[79]*

Today, most economists readily admit that the equilibrium system of the neo-classicists is totally divorced from reality.[80] It does not take into account the particular institutional framework of capitalism, which makes quite absurd the notion that wages are determined by "the product of the last unit of his time that the worker wishes [!] to give up rather than devote it to leisure".† It does not take into account the dynamic character of competition and the continual disturbances of equilibrium which it causes. It is essentially *static* and brings in dynamics as at most an element disturbing equilibrium, whereas in reality equilibrium is only a transient moment in a spasmodic economic movement which is in ceaseless oscillation. It has no explanation to offer either for periodical crises or for structural crises. Carried to its logical conclusion, it even denies the phenomenon of imperialism, or, more precisely, denies that there is any connection between imperialism and the laws of development of capitalism.[81]‡

The neo-classical theory is not only divorced from social reality as a whole. It is also divorced from the practical reality of everyday life. The labour theory of value can be demonstrated empirically, even if only in the sense that, in the last analysis, all the elements of the cost of production of a commodity tend to be reduced to labour, and to labour alone, if one goes far enough back in the analysis. Despite all the teachings of the neo-classical school, capitalist businessmen continue to calculate their costs of production on this basis.§ And when they seek to make comparative productivity calculations, they do this using the yardstick of "amount of labour expended", and using this yardstick only.[84]

* This example enables us to detect red-handed, so to speak, the mistake made by the marginalists, since the rate at which shares stand on the stock exchange is not *determined* by the "law of supply and demand"; this "law" at most causes this rate to *vary around a certain axis*, namely, the capitalisation of the dividends expected. Similarly the "law of supply and demand" makes the market price of commodities vary around their *value*, which is determined by the amount of labour socially necessary to produce them.

† The neo-classical theory which determines the "income of the three factors of production" by their "marginal productivity" is merely a false generalisation of Ricardo's theory of differential rent; see Chapter 9, last section.

‡ Cf. this remarkable forecast by Schumpeter: "But we can conjecture that among all countries the United States is likely to exhibit the weakest imperialist trend."[82]

§ As a number of investigations, such as that by Hall and Hitch, have shown, enterprises do not know what their marginal cost is, and argue in terms of total average cost, plus a preconceived profit margin."[83]

The "Keynesian revolution"

The marginalist theory of value and the neo-classical school based upon it dominated bourgeois economic thought for three-quarters of a century. Their objective function was, no doubt, purely apologetic—to justify the capitalist order as more or less inevitable; to justify wages, prices and profits as the result of exchanges carried out on an equal footing. In so far as the capitalist expansion which marked the second half of the nineteenth century and the first decade of the twentieth itself constitutes a much more powerful "argument" in favour of capitalism than any theoretical construction, the bourgeoisie felt no need for a trend of economic thought other than this purely apologetic school.

Several generations of economists, however, showed themselves dissatisfied with the answers given by the neo-classical school, especially to the problems of investment (the rate of interest), money (the quantity theory of money) and periodical crises. The neo-classical school began breaking up on its weakest sides, that is, the difficulties it met in formulating a dynamic theory, a theory of growth, starting from the micro-economic data of marginal value, and the difficulty of reconciling the theory of prices resulting from supply and demand* with a theory of prices resulting from the quantity of money in circulation.

It was in this way that the idea of a rate of interest resulting from the supply and demand of capital, a rate of interest which rises until the demand ceases because it is excessive, was refuted at the beginning of the century by the Swedish economist Wicksell. The latter showed that the rate of interest in equilibrium is determined by the relation between *saving* and *investment*; and Gunnar Myrdal, a pupil of Wicksell's, went still further, explaining that this rate of interest actually depends on the return expected from investment,[85] that is, on the rate of profit, as Marx says.

While, during the nineteenth century, only critics of capitalism concerned themselves with crisis phenomena, after the end of that century Tugan-Baranovsky began, under the direct influence of Marx, the *empirical study of periodical crises*, which led to the modern theories

* It can be said that the marginalist school was never able to solve the problem of the "marginal value of money", and that for this reason it remained dualistic, combining a *subjective* theory of value with an *objective* theory of money (e.g. the quantity theory). It is clear that an increase in the "stock of currency" does not necessarily reduce the "marginal value" of this stock, as would happen in the case of an increase in a stock of corn, since money can be used to buy, one after another, commodities which correspond to *different* needs of equal intensity. The dualism of the theory is seen if one imagines an increase in the stock of currency suddenly causing a rise in prices, without any change in the marginal value of the commodities concerned.

The quantity theory of money implies that prices rise or fall depending on whether the quantity of currency in circulation increases or decreases, in relation to a definite level of equilibrium.

of the economic cycle and economic growth. He was inspired, moreover, by all the procedures worked out by Marx, such as the division of social production into two sectors, the question of the periodical renewal of fixed capital, etc. Following Tugan-Baranovsky, Spiethoff, Aftalion, Bounatian, W. C. Mitchell, Schumpeter and others also concerned themselves with studying and trying to explain the empirical data of crises. In 1917 the University of Harvard set up a special institute for the study of cyclical fluctuations (Harvard Committee for Economic Research). But it was only after the great economic crisis of 1929–1933 that official economic theory completed the turn which has come to be known as the "Keynesian revolution".

This casual relation between experienced historical reality and the change in economic thinking is nowhere so clearly seen as in Keynes himself. In his *Treatise on Money*, Keynes remained attached to the quantity theory of money, a theoretical construction separate from the main body of neo-classical economic thought. Under the influence of Alfred Marshall, he still dealt with money as a mere medium of exchange and not as simultaneously a medium of payment and a store of value. It was under the direct influence of the crisis that he wrote in 1936 his *General Theory of Employment, Interest and Money*, which overturned these traditional notions.

Taken together, the equilibrium equations worked out by Walras theoretically implied full employment. A society based on free competition would have automatically a tendency towards full employment, and the only unemployment conceivable within this framework was frictional unemployment. If crises did break out, then they must be due basically to phenomena of currency disorder and excessive strain on credit. Keynes, however, had before him the example of the British economy between 1918 and 1938, in which for twenty years about 10 per cent of the working class remained unemployed. Equilibrium thus could perfectly well coincide with large-scale unemployment; there must be a flaw in the academic theoretical explanation.

Keynes discovered this flaw in the twofold function of money, as being both a medium of exchange and a medium of payment, *(potential) demand for commodities on the market*. Now, households and firms may take two decisions regarding the sums of money they possess; a decision to spend (consume) them, or a decision to hoard them. And since it is the volume of demand that determines the level of economic activity, the latter will fluctuate with the propensity to consume, that is, according to whether incomes as a whole are spent or not.[86] As households usually spend the bulk of their income, it is fluctuations in the expenditure of firms, fluctuations in investment, that ultimately determine the volume of demand, employment and production.

The Keynesian theory is an *income theory*, since it makes the level

of employment dependent in the last analysis on the allocation of income. And since a certain allocation of income (of demand) is essential if full employment is to be achieved, Keynes proposes that public expenditure be brought in to make up for the inadequacy of investment when there is a fall in income and excessive unemployment. Thanks to the operation of the multiplier,* all public expenditure increases national income by an amount greater than itself. This is how the theory of deficit spending is arrived at, extra public expenditure making it possible to "prime the pump of recovery".

Thereby, Keynes broke radically with a whole series of dogmas which were generally accepted in his age: the dogma by which a crisis —even that of 1929!—could be overcome if only wages could . . . fall sufficiently low to make production profitable once more for the entrepreneur (without answering the question: who is to buy the results of this production?); the dogma of stability of the currency as something to be preserved at all costs; the dogma that all income always ends by being spent; the "law of markets", etc.

The historical significance of this break is obvious. It is the turn in bourgeois political economy from an apologetic function to a pragmatic one. *Instead of justifying capitalism in theory, it was now a matter of saving it in practice* (prolonging its existence) by weakening the violence of periodical fluctuations. Social control of economic cycles had become a political necessity, both within each country and internationally: "The principal practical problem of our own generation is the maintenance of employment, and it has now become . . . the principal problem of economic theory."[87] Keynes and his followers were pursuing a practical purpose: organising state intervention in economic life in order to bring about a weakening in the violence of crises. All their theoretical preoccupations pointed in that direction. Purely theoretical problems were brushed aside more and more peremptorily. One of Keynes's disciples, Samuelson, is content to start, in his textbook *Economics* from the "fact" of the "three factors of production", without even bothering to formulate a theory of value.

Being pragmatic, the Keynesian school is essentially macro-economic. In order to save capitalism this school focuses attention on the major economic aggregates and points to them as the object of possible intervention by the public authorities; the value, or the individual price, of commodities matters little. The decisive turn of official political economy towards macro-economic theory made it possible to deepen the theory of the economic cycle and of economic growth, and through the medium of econometry it has given birth to a series of new *techniques* for economic research, forecasting and planning, which are

* See Chapter 11 for explanation.

as useful for a society which has abolished capitalism as for capitalist society itself, if not more so.

These positive elements contained in the "Keynesian revolution" cannot be denied. They constitute, moreover, on the whole, at least objectively, a return to classical conceptions, if not to those of Marx. Keynes's criticism of the theory of markets and of the quantity theory of money is to be found in its essentials, in Marx's work: even the theory of interest based on liquidity preference originated with Marx.

Nevertheless, Keynes remained a prisoner, in a number of spheres, of the mistaken ideas of the neo-classical marginalist school.* And his pragmatism often puts him rather cynically in the service of the bourgeoisie, as when he declares his preference for price-increases (moderate inflation), since the workers put up much less opposition to a reduction in real wages, through a price increase, than to a reduction in nominal wages.[89]

He continues to regard "forecasts by entrepreneurs" as the decisive factor in the cyclical progress of the economy, without asking himself whether these "forecasts" do not depend ultimately on objective factors, such as changes in the rate of profit. He continues to speak indiscriminately of "income" and "saving", without making the fundamental distinction between the income of the workers, which is rarely saved (all working-class saving is literally deferred consumption) and capitalist saving, which alone has the choice between investment and hoarding. While understanding the importance of the phenomenon of hoarding, practically ignored by the marginalists, he excessively restricts its importance by defining investment as "an asset in some form or other",[90] which brings us back to the equilibrium equation whereby saving equals investment, whereas it would have been enough to use the concept of *productive* investment in order to strengthen the entire argument considerably. Finally, though he rebukes the marginalist school for basing itself on the theorem of fixed income, he himself employs the no less unrealistic theorem of the "present volume and amount of equipment", linked with a mobile rate of profit,[91] whereas the fluctuations of this rate depend precisely on the evolution of the accumulated amount of fixed capital, as he admits, moreover, in

* It must however, be pointed out that in one place at least Keynes tries to return to the labour theory of value. He writes: "I sympathise therefore with the pre-classical doctrine that everything is *produced* by *labour*, aided by what . . . is now called technique, by natural resources which are free or cost a rent according to their scarcity or abundance, and by the results of past labour, embodied in assets, which also command a price according to their scarcity or abundance". (So far, we are still within the framework of vulgar and eclectic political economy.) "It is preferable to regard labour, including, of course, the personal services of the entrepreneur and his assistants, as the sole factor of production, operating in a given environment of technique, natural resources, capital equipment and effective demand."[88]

another passage. As regards the entire problem of capital accumulation, his views are excessively coloured by the experience of the period 1920–1935 in Britain, a period of semi-stagnation.

The econometrists

The income theory and economic cycle theory of the Keynesian school brought economic thought to the point where the need was felt to represent the system in the form of mathematical models. Thus, very soon, from the end of the 1930s and the beginning of the 1940s onward, macro-economic models began to be constructed for studying the cycle (especially models based on the combination of the multiplier and the accelerator*), then models of economic growth, based on the capital coefficient, and finally, input-output tables and operational research calculations. Adopted only in a fragmentary and spasmodic way in capitalist economy, these techniques will not really find their full application except within the framework of a planned and socialised economy, to which their usefulness would be undeniable, especially where hard mechanical problems needed solving (choice between different investment projects with the same priority aim; progressive replacement of current technical processes by new ones; determination of the more or less underdeveloped state of certain regions and of the type of investment most appropriate to overcoming this backwardness, etc.). The refusal to use these techniques in the U.S.S.R. in the Stalin epoch was justified by pseudo-theoretical arguments which were quite valueless, and caused a great deal of harm to the economic development of that country.

While, however, econometry is a valid technique, it is only a technique, and even only an *auxiliary technique*. It cannot in itself either set problems or give direction to economic policy; it always remains in the service of a way of looking at things and a policy which are *previously determined*. Any attempt to attribute an excessive importance to this technique, or a universal or absolute value to the results of econometric research, must result in unavoidable confusion and error.

Above all, the econometric technique is a technique of *simplification*. It is obliged to work with *some* data, *some* variants which are known and quantifiable.[92] Like neo-classical theory it has always to operate with the well-known limitation: all other things being equal. But while this limitation is without importance in a purely theoretical context, it becomes decisive as soon as abstract speculation is no longer what is involved, but precise forecasting with a view to action. The result of any econometric calculation must be regarded as raw material to which a much fuller dialectical analysis has to be applied, taking

* See Chapter 11.

into account a large number of variants and secondary factors which the calculation itself left on one side.

Consequently, every econometric calculation is pre-determined by the point of view of whoever has formulated the problem. Depending on whether one accepts or not the hypothesis that there is an *interaction* between the level of consumption and the return of an investment which is forecast, the choice of the capital coefficient on which the calculation is to be based will differ substantially.* One estimate of the value of the multiplier differing by only one decimal point from another, may lead to considerable differences in the results forecast. The adoption or not of the labour theory of value, and the determining of the national income as a function of this theory or not, will lead to different formulae and different preferences in the solving of equations to determine the optimum growth-rate. Depending on whether one regards the population as merely so many mouths to be fed or as also a potential labour-force whose creative possibilities should be mobilised, the result of a calculation of the possible growth of the national income per head of population in an under-developed environment may differ by as much as 1 differs from 2 or 3.

Econometry thus has to remain subordinate to a general economic theory. As soon as it seeks to become independent of any such theory it risks going astray. Keynes understood this very well, and wrote, in a famous dispute with Tinbergen: "Am I right in thinking that the method of multiple correlation analysis (that is, the statistical method) essentially depends on the economist having furnished, not merely a list of the significant causes, which is correct so far as it goes, but a complete list? For example, suppose three factors are taken into account, it is not enough that these should be in fact *verae causae*; there must be no other significant factor. If there is a further factor, not taken account of, then the method is not able to discover the relative quantitative importance of the first three. If so, this means that the method is only applicable where the economist is able to provide beforehand a correct and indubitably complete analysis of the significant factors. The method is one neither of discovery nor of criticism".[93]

An apologetic variant of Marxism

The most fertile period of Marxist economic theory was that between 1894 and 1914. After the publication by Friedrich Engels of Volumes 2 and 3 of Marx's *Capital*, and the assimilation of these volumes, after the publication by Kautsky of Marx's *History of Economic Doctrines (Theorien über den Mehrwert)*, in an atmosphere of rapid advance of the labour movement and of intense ideological struggle between "Marxists" and "revisionists", there came out, one after another, Lenin's work on the development of capitalism in Russia, Kautsky's

* See Chapter 16.

on capitalism in agriculture, Parvus's first studies of imperialism, the debates among the Russian "legal Marxists" on the theory of crises, and then, the culmination of this entire epoch, Rudolf Hilferding's *Finance-Capital* and Rosa Luxemburg's *Accumulation of Capital*; followed up, moreover by important articles and pamphlets devoted to discussing and popularising the ideas in these books, by Kautsky, Otto Bauer, Pannekoek and Lenin (*Imperialism, the Last Phase of Capitalism*). The bulk of these studies constituted a "bringing up to date" of Marxism in face of the structural transformations which had taken place in the world market as well as in the imperialist countries themselves in the epoch of monopolies which Marx and Engels had been able to sense the coming of but which they had not lived to analyse in detail.

A second phase of development of Marxist economic theory, less fertile than the first, extended from the end of the First World War to the beginning of the great economic crisis of 1929–1933. Two categories of problems held the centre of attention: those of a society in transition between capitalism and socialism (that is, of Soviet economy), and those of imperialism. In the former category should be mentioned the works of Bukharin and Varga; Preobrazhensky's *The New Economics*; the first Soviet textbook of political economy, by Lapidus and Ostrovityanov; and more specialised articles by Strumilin, Trotsky, Gatovsky and others. To the second category belong works by Henryk Grossmann, Fritz Sternberg and Otto Bauer.

But at the very moment when the bankruptcy of traditional bourgeois political economy become plain, and when bourgeois economic thought made its great pragmatic turn, Marxist economic thought, far from making a fresh leap forward, itself experienced a pragmatic transformation, at least in the Soviet Union and in every milieu dominated by the Soviet Union. From being an instrument of research into objective truth it was degraded to the role of justifying *a posteriori* the political or economic decisions taken by the government of the U.S.S.R. While a study of the various successive justifications of the "twists and turns" of Soviet policy has now only a purely historical interest, this does not apply to the *apologetic distortions* introduced into the corpus of Marxist economic theory itself. The two most important of these relate to the question of defining socialist society—in particular as regards commodity production—and to that of payment of labour-power in a society transitional between capitalism and socialism (and, *a fortiori*, in socialist society itself).

The labour theory of value implies that commodity production disappears with the market, that, is, with any form of circulation of products in which human labour has to go the roundabout way of exchange in order to be adjudged socially necessary or not.[94] The passages on this point in the writings of Marx and Engels are numerous and

unequivocal: *Critique of the Gotha Programme*,[95] Engels' letter to Kautsky of September 1884, etc. The disappearance of commodity production depends, however, on two factors: the withering-away of all private ownership of products in circulation, any form of property different from collective ownership; and a disappearance of conditions of partial shortage such that exchange of labour-power against a limited quantity of consumer goods can be abolished as the means of distributing products. These two conditions are necessary for completing the construction of a socialist society.

The official Soviet thesis, according to which the construction of socialism has been finished in the U.S.S.R. since 1936, though the categories "commodity, value, money" still obviously apply there, represents a revision of the Marxist theory of socialist society. *The Textbook of Political Economy* published in August 1954, adopting the theme of Stalin's article on "Economic problems of socialism in the U.S.S.R.", defends this same revisionist view.[96] It declares that the survival of commodity production follows, in the U.S.S.R., from the existence of two forms of Socialist property namely, state property and collective-farm property, whereas in reality the survival of commodity production follows from the inadequate development of the productive forces. In this way it was possible to expound the idea of a socialist society having a level of development of the productive forces, and a standard of living, lower than in the most advanced capitalist countries. Such an idea is in contradiction with the basic theses of Marxism.

The apologetic nature of these ideas is obvious. They were formulated *a posteriori* in order to justify a political thesis of the leaders of the State, namely, that the construction of socialism had been completed in the U.S.S.R. They were formulated in order to hide from the citizens of the U.S.S.R. the enormous gap which existed in that period between their standard of living and that of the citizens of the most advanced capitalist countries. By justifying the continued existence of commodity production under "socialism" the authors of this thesis likewise justified the continued existence of social inequality and alienation of labour in this strange "socialist society".

Even plainer is the apologetic character of the theory according to which payment for labour in "socialist" society is regulated according to the "quantity and quality of labour performed for society". This formula is nowhere to be found in Marx. On the contrary, he makes it quite clear, in the *Critique of the Gotha Programme*, that in the first phase of socialist society the producers will be paid only in accordance with the *quantity* of labour performed.[97] In *Anti-Dühring*, Engels even explains why payment in accordance with the *quality* of labour, which is reasonable in capitalist society so long as *the costs of acquiring special skills are met by private persons*, loses all significance in a socialist society in which these costs are completely socialised.[98]

Far from being a "special" application of the labour theory of value to a "socialist" society, the theory of payment "in accordance with the quantity and quality of labour performed" is nothing but a crude justification of the differences in wages which exist *de facto* in the U.S.S.R. and in other societies in transition from capitalism to socialism under a marked degree of bureaucratic domination.* It is nowhere to be found in the writing of any of the Soviet theoreticians of the first ten years of the U.S.S.R.'s existence: neither in Lenin, nor in Bukharin, nor in the first *Textbook of Political Economy*, by Lapidus and Ostrovityanov. It makes its first appearance in 1932, when what was needed was precisely to provide an apologia for the sharp increase in social inequality. Since then it has been repeated by innumerable official text books (in Yugoslavia as well) and by western writers adapting themselves closely to the policy of the Soviet state. It is contained in the *Textbook of Political Economy* published in 1954.[100]

But this apologetic theory stumbles over an obvious difficulty. Though in capitalist society skilled work can be regarded as "complex" labour (that is, simple labour multiplied by a coefficient which takes account of the costs incurred in acquiring the given skill), it is never paid very much more than simple labour. In the Soviet Union, however, the differentials remain very large; they were huge in the Stalin era.† A theory had to be found to justify these differentials. This is why John Eaton[102] writes that the "quality of the labour performed" is *judged in accordance with the social utility of the labour performed*. A. Leontiev was apparently the inventor of this idea. In adopting it, however, theoreticians calling themselves Marxist made a 180-degree turn. For any theory which determines payment by the "social utility of the labour performed", and no longer by an objective criterion which permits different kinds of labour to be measured comparatively, makes a final break with the labour theory of value in order to pass over into the camp of the subjective theory of value. Doubtless a thesis which endeavours frankly to justify social inequality must lead to such

* The passage in *Anti-Dühring* is well-known, where Engels makes fun of the claim that professors, architects, etc. should get "a little extra" compared with "porters". Cf. similarly, Marx and Engels in *The German Ideology*: "But one of the essential principles of communism, by which it is marked off from all reactionary socialism, consists precisely in the empirical notion, based on human nature, according to which differences in the *head*, in intellectual abilities, do not determine at all any differences in the *stomach* and physical *needs*; and that therefore the mistaken formula, based on our present conditions, 'To each according to his abilities', in so far as it relates to consumption in the strict sense of the word, should be replaced by the formula 'To each according to his needs'; that, in other words, *differences* in activity do not confer any right to *inequality*, to any privilege in ownership or consumption".[99]

† On the eve of the war, the wages of skilled workers amounted to eight times those of labourers while "the best-paid workers" earned "much more" than the skilled workers, said Y. Manevich in the journal *Voprosy ekonomiki*.[101]

a theory. Is it not purely subjectivism to declare that some economic "law" determines that the wages of an admiral, or of a *prima ballerina*, should be twenty times as high as the wages of an average skilled worker?*

While Marxism rejects without reserve any theory by which the "quantity and quality of labour" determines payment in *socialist* society, it readily admits that in the transitional phase between capitalism and socialism differences in payment may be maintained for purposes of obvious economic efficacity, where technicians, engineers and other indispensable specialists are concerned.[103] But Marxism explains that this is in no way an application of its principles but rather a *departure* from them (as also from the labour theory of value), and that this departure must disappear in due course. It further explains that this departure is a constant source of corruption, demoralisation and bureaucratisation, and that social and economic measures must be taken to restrict as much as possible the bureaucratic distortion which inevitably results from this phenomenon.[104]

New developments in economic thinking in the U.S.S.R.

The great industrialisation debate of the 1920s was the last opportunity for the development of economic thinking in the U.S.S.R. after the coming of the Stalin régime. The next two decades saw the stifling of all independent development of critical thought. The degeneration of Marxism into a form of apologetics transformed it at the same time into a form of scholasticism incapable of responding to genuine and fresh problems otherwise than with a sterile juggling of quotations.

But the advance of Soviet economy and technique itself threw up problems which this scholasticism proved unable to solve. Even before Stalin's death there was to be observed, accordingly, a certain reawakening (extremely cautious, to be sure) of independent economic research, which actually culminated in a controversy marked by a certain amount of critical freedom, namely, the discussion about the choice to be made between different investment projects.[105]

After Stalin's death, and especially after the effects of Khrushchev's reforms had been exhausted,† Soviet economic thought underwent a true re-birth. A fairly substantial number of works appeared which made really new contributions. The main tendency, however, was clearly pragmatic. It is obviously less important to writers like Kantorovich, Novozhilov, Nemchinov, Malyshev, and so on, to discover the "economic laws" of the epoch of transition from capitalism to

* Theoreticians of the same kind depart even further from the labour theory of value when they claim to "measure" the quantity and "quality" of kinds of labour which, by definition, do not produce value, such as the labour of administrators, scholars, etc.

† See Chapter 15.

socialism than to find solutions to practical problems. Among the latter the problem of *rational fixing of prices* is clearly the most outstanding.*

The mathematician Kantorovich had, so far back as 1939, begun the development in the U.S.S.R. of the technique of linear programming and operational research. He had sought to rehabilitate the use of the differential calculus and of marginalism in the solving of micro-economic problems. In the discussion about prices which arose during the 1950s and then again in the 1960s, the theoretical contribution made by the Kantorovich-Novozhilov school remained extremely abstract; in fact, so far as these writers were concerned, as with others, attention was focused on certain rather elementary practical problems, such as the struggle to include a "rate of interest" (cost of using fixed capital) in the calculation of costs of production. The reforming effects of Liberman, tending to rehabilitate the intervention of the law of supply and demand in the formation of retail selling prices, were not connected so much with this school of thought as with that of Malyshev (called the "price of production" school).

In so far as what is involved is a mere technique of rationalising the distribution of consumer goods, and adapting the production of them more rapidly and efficiently to the needs of consumers, no *a priori* objection can be brought against it. However, the theoretical, political and social context in which the adoption of this technique is taking place is that of a more and more thoroughgoing revision of the Marxist premises of economic planning in the transition period between capitalism and socialism. In *this* context, the reforms in question are fraught with risks affecting the cohesion of the planning system taken as a whole.

What the Soviet economists are actually trying to find is a system of *automatic response*, of self-regulating factors which would make it possible to obtain optimum economic results independently of any conscious human intervention. Reacting with justification against bureaucratic hyper-centralisation, and rejecting for socio-economic reasons which are no less obvious the ideal solution of democratic control by the mass of producers and consumers, they can do nothing but rehabilitate to an increasing degree the automatic functioning of the market. Thus adjustment of supply to demand, in the sphere of consumer goods, is sought by way of providing enterprises with material "incentives" and, at least in theoretical writings, a "striving for the average profit" on the part of each "Soviet firm" is already openly envisaged.[107]

From this moment onwards, however, the pressure of the technocrats and managers, "materially interested" in "maximum profit", to extend "free price-formation" from the sphere of consumer goods to

* See an excellent summary of this discussion in the book by Henri Denis and Marie Lavigne.[106]

that of capital goods will become stronger and stronger, because it is obvious that so long as the prices of capital goods are "administrative prices", that is to say, planning devices intended to channel investment by the enterprises in determined directions, enterprises will remain a long way away from the "maximum profit" which could be achieved with "free prices". From the moment, however, when supply and demand determine the prices of capital goods as well as consumer goods, the entire logic of planning will start to break up. From then onward, investments will no longer be guided towards consciously-chosen priority talks, but will proceed according to "market mechanisms". Needless to say, this reorientation of investments, far from increasing the economic rationality of the system, would merely reproduce in it the classical blemishes of capitalist "free enterprise": waste through excess capacity, duplication in the employment of resources, widespread tendencies for production to run away with itself, and even periodical overproduction and unemployment.

The fact that the revived discussion among Soviet economists remains largely restricted to the supporters of "conservative" doctrines (that is, those inspired by the practice of the Stalin period) and the supporters of "renovating" doctrines which point increasingly in the direction of revisionism, shows the *limited character* of the renaissance of economic theory in the U.S.S.R. At the risk of indulging in excessive schematism, it would be possible to depict these two schools of thought as reflecting, respectively, the interests of the central bureaucracy and the interests of the bureaucracy and technocracy at enterprise level. The point of view of the proletariat is not represented in the discussion.

When the proletarian view is formulated it will doubtless take into account all the contributions of up-to-date technique, including those of higher mathematics, but it will at the same time reduce the problem to its proper proportions. It is not by any functioning of clockwork devices, excluding conscious human intervention, that the optimum growth of the planned, socialised economy can be achieved; transferring to the macro-economic level techniques which are valid for solving micro-economic problems leads inevitably to the worst of contradictions. Optimum growth is a function of socialist democracy, of discussion and of the trying-out in practice of different variants. It is above all a function of continuous control by the workers over the use of machinery, raw materials and finished products in their spheres of work. For this control is in the long run a much more effective instrument than the most precise calculations of "rates of interest on investment funds" for ferreting out unused production capacities. In order that it may function on a large scale it is not sufficient for the workers to be materially interested (which can be arranged within the framework of a system of self-management). It is further necessary

that they possess social and political freedom and make use of it on as extensive a scale as possible, and that the entire political climate should encourage them to do this.*

The end of political economy

Every science is an instrument of knowledge, an attempt to reply to certain questions. The questions which political economy endeavours to answer—what is value? What is the source of capital and surplus value? How are wages determined? What is the influence of the circulation of money on prices and the state of business? How does reproduction operate? etc.—are born with commodity production and money economy, and will therefore die with them.

It was not accidental that Marx sub-titled *Capital*, "A critique of political economy", and that his preparatory work for *Capital* was called: "Fundamental features of a critique of political economy" *(Grundrisse der Kritik der politischen Ökonomie)* for Marx, political economy was essentially an ideology. Just as there is no "Marxist philosophy", so there is no "Marxist political economy". Marx's work *goes beyond* these two great ideologies of his age; beyond one in the Marxist theory of knowledge (materialist dialectics); beyond the other in Marxist economic theory (dialectics of the evolution of human societies).

From the disintegration of philosophy by Marx two lines of enquiry open out: the positive natural sciences, on the one hand, and dialectics, on the other. Similarly, the surpassing of political economy leaves behind two survivals: the applied economic sciences (organisation of industrial and agricultural production, sciences of organisation in general) and Marxist economic theory.

Marx himself, and after him Rosa Luxemburg, Hilferding, Bukharin and Preobrazhensky, are quite definite on this point. Political economy withers away together with the economic categories it tries to explain:†

* The Soviet economist V. V. Novozhilov makes use of a comparison between present-day industrial economy and the cybernetic mechanisms based on feedback, in order to "show" that the more complex an economic system is, the more it needs centralised management.[108] He does not seem to notice the question-begging which obviously underlies his reasoning, for what he has not previously proved is his view that an economy which is alleged to be socialist can actually be managed by more or less autocratic self-regulating mechanisms, independently of the conscious choices made by the producers and consumers. His reference to Marx and Engels is all the more unfortunate in that they, unlike Novozhilov and his school (as also Malyshev's) explicitly rejected the use of calculations based on the law of value and "prices of production" as the foundation for the system of distribution in a post-capitalist society.[109]

† "With the liquidation of the law of value in the domain of the economy, the old political economy is also liquidated," declared Preobrazhensky. And Rosa Luxemburg says that in Marxist theory political economy attained its perfect form but also its end as a science.[110]

"Once for all I may here state that by classical political economy I understand that economy which, since the time of W. Petty, has investigated the real relations of production in bourgeois society, in contradistinction to vulgar economy, which deals with appearances only . . ."—adding that this political economy shows itself incapable of penetrating the ultimate secrets of value.[111] Lenin, however, seems to reject this view. Referring to a definition by Engels, he supposes that a *new*, "socialist" political economy will apply to a fully developed socialist society.[112]

And in this connection he asks: will not the equilibrium equation $c\text{II} = v\text{I} + s\text{I}$ apply in communist society? By analysing this question we grasp the precise sense in which political economy withers away by being transcended. It goes without saying that so long as commodity production exists, economic science continues to exist as an instrument for knowing reality. It thus remains fully applicable in a society in transition from capitalism to socialism, and in the first phase of socialist society itself. But when this process of withering away of categories has been *completed*, no place remains for an "economic doctrine" comparable to Marxist doctrine, as a science of *present-day reality*; it will continue to exist only as an instrument for knowing the *past*, and a safeguard against possible future catastrophes. There will be nothing more to "explain". All economic relations will have become transparent. In so far as the formula $c\text{II} = v\text{I} + s\text{I}$ is an equation between *values*, exchange-values, capital, it will obviously have lost all validity in a society based on plenty, in which economic categories will have disappeared.

What will undoubtedly continue to exist for a long period, down to the time when all economic calculation becomes superfluous, will be the need to measure the replacement needs of the stock of machinery, first in amounts of labour and then, when the age of plenty has begun, in *material quantities*. What will continue to exist will thenceforth be the need to calculate the utility or disutility of a particular rate of replacement, no longer in "value", but in accordance with men's conscious choices, giving priority of human considerations freed from all "iron laws". This "survival" of political economy will be a "positive natural science", a science which will undoubtedly integrate the laws of organisation and the theory of communication with the laws of individual and social psychology, mental and physical hygiene, etc. It is difficult to prophesy what will be the forms assumed by this "positive science". What is certain is that, by virtue of the questions it will seek to answer, it will have little in common with past and present economic theory, with bourgeois political economy, or with the Marxist criticism of it. Marxist economists can claim the honour of being the first category of men of learning to work consciously towards the abolition of their own profession.

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