Karl Marx
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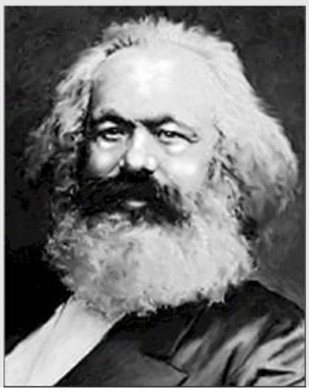

1. Life and Work

Karl Marx was born on 5 May 1818, the son of the lawyer Heinrich Marx and Henriette Pressburg. His father was descended from an old family of Jewish rabbis, but was himself a liberal admirer of the Enlightenment and not religious. He converted to Protestantism a few years before Karl was born to escape restrictions still imposed upon Jews in Prussia. His mother was of Dutch-Jewish origin.

Karl Marx studied at the *Friedrich-Wilhelm Gymnasium* in Trier, and at the universities of Bonn and Berlin. His doctoral thesis, **Differenz der demokritischen und epikurischen Naturphilosophie**, was accepted at the University of Jena on 15 April 1841. In 1843 he married Jenny von Westphalen, daughter of Baron von Westphalen, a high Prussian government official.

Marx's university studies covered many fields, but centred around philosophy and religion. He frequented the circle of the more radical followers of the great philosopher Hegel, befriended one of their main representatives, Bruno Bauer, and was especially influenced by the publication in 1841 of Ludwig Feuerbach's **Das Wesen des Christentums** (**The Nature of Christianity**). He had intended to teach philosophy at the university, but that quickly proved to be unrealistic. He then turned towards journalism, both to propagandise his ideas and to gain a livelihood. He became editor of the **Rheinische Zeitung**, a liberal newspaper of Cologne, in May 1842. His interest turned more and more to political and social questions, which he treated in an increasing radical way. The paper was banned by the Prussian authorities a year later.

Karl Marx then planned to publish a magazine called **Die Deutsch-Französische Jahrbücher** in Paris, in order to escape Prussian censorship and to be more closely linked and identified with the real struggles for political and social emancipation which, at that time, were centred around France. He emigrated to Paris with his wife and met there his lifelong friend Friedrich Engels.

Marx had become critical of Hegel's philosophical political system, a criticism which would lead to his first major work, *Zur Kritik des Hegelschen Rechtsphilosophie* (1843, *A Critique of Hegel's Philosophy of Right*). Intensively studying history and political economy during his stay in Paris, he became strongly influenced by socialist and working-class circles in the French capital. With his **Paris Manuscripts** (**Oekonomisch-philosophische Manuskripte**, 1844), he definitely became a communist, i.e. a proponent of collective ownership of the means of production.

He was expelled from France at the beginning of 1845 through pressure from the Prussian embassy and migrated to Brussels. His definite turn towards historical materialism (see below) would occur with his manuscript **Die Deutsche Ideologie** (1845-6) culminating in the eleven *Theses on Feuerbach*, written together with Engels but never published during his lifetime.

This led also to a polemical break with the most influential French socialist of that period, Proudhon, expressed in the only book Marx would write in French, **Misère de la Philosophie** (1846).

Simultaneously he became more and more involved in practical socialist politics, and started to work with the Communist League, which asked Engels and himself to draft their declaration of principle, This is the origin of the **Communist Manifesto** (1848, **Manifest der Kommunistischen Partei**).

As soon as the revolution of 1848 broke out, he was in turn expelled from Belgium and went first to France, then, from April 1848 on, to Cologne. His political activity during the German revolution of 1848 centred around the publication of the daily paper **Die Neue Rheinische Zeitung**, which enjoyed wide popular support. After the victory of the Prussian counter-revolution, the paper was banned in May 1849 and Marx was expelled from Prussia. He never succeeded in recovering his citizenship.

Marx emigrated to London, where he would stay, with short interruptions, till the end of his life. For fifteen years, his time would be mainly taken up with economic studies, which would lead to the publication first of **Zur Kritik der Politischen Oekonomie** (1859) and later of **Das Kapital**, Vol. I (1867).

He spent long hours at the British Museum, studying the writings of all the major economists, as well as the government **Blue Books**, **Hansard** and many other contemporary sources on social and economic conditions in Britain and the world. His readings also covered technology, ethnology and anthropology, besides political economy and economic history; many notebooks were filled with excerpts from the books he read.

But while the activity was mainly studious, he never completely abandoned practical politics. He first hoped that the Communist League would be kept alive, thanks to a revival of revolution. When this did not occur, he progressively dropped out of emigré politics, but not without writing a scathing indictment of French counter-revolution in **Der 18. Brumaire des Louis Bonaparte** (1852), which was in a certain sense the balance sheet of his political activity and an analysis of the late 1848-52 cycle of revolution and counter-revolution. He would befriend British trade-union leaders and gradually attempt to draw them towards international working class interests and politics.

These efforts culminated in the creation of the International Working Men’s Association (1864) – the so-called First International – in which Marx and Engels would play a leading role, politically as well as organisationally.

It was not only his political interest and revolutionary passion that prevented Marx from becoming an economist pure and simple. It was also the pressure of material necessity. Contrary to his hopes, he never succeeded in earning enough money from his scientific writings to sustain himself and his growing family. He had to turn to journalism to make a living, He had initial, be it modest, success in this field, when he became European correspondent of the **New York Daily Tribune** in the summer of 1851. But he never had a regular income from that collaboration, and it ended after ten years.

So the years of his London exile were mainly years of great material deprivation and moral suffering. Marx suffered greatly from the fact that he could not provide a minimum of normal living conditions for his wife and children, whom he loved deeply. Bad lodgings in cholera-stricken Soho, insufficient food and medical care, led to a chronic deterioration of his wife’s and his own health and to the death of several of their children; that of his oldest son Edgar in 1855 struck him an especially heavy blow. Of his seven children only three daughters survived, Jenny, Laura and Eleanor (Tussy). All three were very gifted and would play a significant role in the international labour movement, Eleanor in Britain, Jenny and Laura in France (where they married the socialist leaders Longuet and Lafargue).

During this long period of material misery, Marx survived thanks to the financial and moral support of his friend Friedrich Engels, whose devotion to him stands as an exceptional example of friendship in the history of science and politics. Things started to improve when Marx came into his mother's inheritance; when the first independent working-class parties (followers of Lassalle on the one hand, of Marx and Engels on the other) developed in Germany, creating a broader market for his writings; when the IWMA became influential in several European countries, and when Engels' financial conditions improved to the point where he would sustain the Marx family on a more regular basis.

The period 1865-71 was one in which Marx's concentration on economic studies and on the drafting of **Das Kapital** was interrupted more and more by current political commitments to the IWMA, culminating in his impassioned defence of the Paris Commune (**Der Bürgerkrieg in Frankreich**, 1871). But the satisfaction of being able to participate a second time in a real revolution – be it only vicariously – was troubled by the deep divisions inside the IMWA, which led to the split with the anarchists grouped around Michael Bakunin.

Marx did not succeed in finishing a final version of **Das Kapital** vols II and III, which were published posthumously, after extensive editing, by Engels. It remains controversial whether he intended to add two more volumes to these, according to an initial plan. More than 25 years after the death of Marx, Karl Kautsky edited what is often called vol. IV of **Das Kapital**, his extensive critique of other economists: **Theorien über den Mehrwert** (**Theories of Surplus Value**).

Marx's final years were increasingly marked by bad health, in spite of slightly improved living conditions. Bad health was probably the main reason why the final version of vols II and III of **Capital** could not be finished. Although he wrote a strong critique of the Programme which was adopted by the unification congress (1878) of German social democracy (**Kritik des Gothaer Programms**), he was heartened by the creation of that united working-class party in his native land, by the spread of socialist organisations throughout Europe, and by the growing influence of his ideas in the socialist movement. His wife fell ill in 1880 and died the next year. This came as a deadly blow to Karl Marx, who did not survive her for long. He himself died in London on 14 March 1883.

2. Historical Materialism

Outside his specific economic theories, Marx's main contribution to the social sciences has been his theory of historical materialism. Its starting point is anthropological. Human beings cannot survive without social organisation. Social organisation is based upon social labour and social communication. Social labour always occurs within a given framework of specific, historically determined, social relations of production. These social relations of production determine in the last analysis all other social relations, including those of social communication. It is social existence which determines social consciousness and not the other way around.

Historical materialism posits that relations of production which become stabilised and reproduce themselves are structures which can no longer be changed gradually, piecemeal. They are modes of production. To use Hegel's dialectical language, which was largely adopted (and adapted) by Marx: they can only change qualitatively through a complete social upheaval, a social revolution or counter-revolution. Quantitative changes can occur within modes of production, but they do not modify the basic structure. In each mode of production, a given set of relations of production constitutes the basis (infrastructure) on which is erected a complex superstructure, encompassing the state and the law (except in a classless society), ideology, religion, philosophy, the arts, morality, etc.

Relations of production are the sum total of social relations which human beings establish among themselves in the production of their material lives. They are therefore not limited to what actually happens at the point of production. Humankind could not survive, i.e. produce, if there did not exist specific forms of circulation of goods, e.g. between producing units (circulation of tools and raw materials) and between production units and consumers. *A priori* allocation of goods determines other relations of production than does allocation of goods through the market. Partial commodity production (what Marx calls 'simple commodity production' or 'petty commodity production' – '*einfache Warenproduktion*') also implies other relations of production than does generalised commodity production.

Except in the case of classless societies, modes of production, centred around prevailing relations of production, are embodied in specific class relations which, in the last analysis, over-determine relations between individuals.

Historical materialism does not deny the individual's free will, his attempts to make choices concerning his existence according to his individual passions, his interests as he understands them, his convictions, his moral options etc. What historical materialism does state is: (1) that these choices are strongly predetermined by the social framework (education, prevailing ideology and moral 'values', variants of behaviour limited by material conditions etc.); (2) that the outcome of the collision of millions of different passions, interests and options is essentially a phenomenon of social logic and not of individual psychology. Here, class interests are predominant.

There is no example in history of a ruling class not trying to defend its class rule, or of an exploited class not trying to limit (and occasionally eliminate) the exploitation it suffers. So outside classless society, the class struggle is a permanent feature of human society. In fact, one of the key theses of historical materialism is that "the history of humankind is the history of class struggles" (Marx, **Communist Manifesto**, 1848).

The immediate object of class struggle is economic and material. It is a struggle for the division of the social product between the direct producers (the productive, exploited class) and those who appropriate what Marx calls the social surplus product, the residuum of the social product once the producers and their offspring are fed (in the large sense of the word; i.e. the sum total of the consumer goods consumed by that class) and the initial stock of tools and raw materials is reproduced (including the restoration of the initial fertility of the soil). The ruling class functions as a ruling class essentially through the appropriation of the social surplus product. By getting possession of the social surplus product, it acquires the means to foster and maintain most of the superstructural activities mentioned above; and by doing so, it can largely determine their function – to maintain and reproduce the given social structure, the given mode of production – and their contents.

We say 'largely determine' and not 'completely determine'. First, there is an 'immanent dialectical', i.e. an autonomous movement, of each specific superstructural sphere of activity. Each generation of scientists, artists, philosophers, theologists, lawyers and politicians finds a given *corpus* of ideas, forms, rules, techniques, ways of thinking, to which it is initiated through education and current practice, etc. It is not forced to simply continue and reproduce these elements. It can transform them, modify them, change their interconnections, even negate them. Again: historical materialism does not deny that there is a specific history of science, a history of art, a history of philosophy, a history of political and moral ideas, a history of religion etc., which all follow their own logic. It tries to *explain* why a certain number of scientific, artistic, philosophical, ideological, juridical changes or even revolutions occur at a given time and in given countries, quite different from other ones which occurred some centuries earlier elsewhere. The *nexus* of these 'revolutions' with given historical periods is a *nexus* of class interests.

Second, each social formation (i.e. a given country in a given epoch) while being characterised by predominant relations of production (i.e. a given mode of production at a certain phase of its development) includes different relations of production which are largely remnants of the past, but also sometimes nuclei of future modes of production. Thus there exists not only the ruling class and the exploited class characteristic of that prevailing mode of production (capitalists and wage earners under capitalism). There also exist remnants of social classes which were predominant when other relations of production prevailed and which, while having lost their hegemony, still manage to survive in the interstices of the new society. This is, for example, the case with petty commodity producers (peasants, handicraftsmen, small merchants), semi-feudal landowners, and even slave-owners, in many already predominantly capitalist social formations throughout the 19th and part of the 20th centuries. Each of these social classes has its own ideology, its own religious and moral values, which are intertwined with the ideology of the hegemonic ruling class, without becoming completely absorbed by that ideology.

Third, even after a given ruling class (e.g. the feudal or semi-feudal nobility) has disappeared as a ruling class, its ideology can survive through sheer force of social inertia and routine (custom). The survival of traditional *ancien régime* catholic ideology in France during a large part of the 19th century, in spite of the sweeping social, political and ideological changes ushered in by the French revolution, is an illustration of that rule.

Finally, Marx's statement that the *ruling* ideology of each epoch is the ideology of the ruling class – another basic tenet of historical materialism – does not express more than it actually says. It implies that other ideologies can exist side by side with that ruling ideology without being hegemonic. To cite the most important of these occurrences: exploited and (or) oppressed social classes can develop their own ideology, which will start to challenge the prevailing hegemonic one.

In fact, an ideological class struggle accompanies and sometimes even precedes the political class struggle properly speaking. Religious and philosophical struggles preceding the classical bourgeois revolutions; the first socialist critiques of bourgeois society preceding the constitution of the first working-class parties and revolutions, are examples of that type.

The class struggle has been up to now the great motor of history. Human beings make their own history. No mode of production can be replaced by another one without deliberate actions by large social forces, i.e. without social revolution (or counter-revolution). Whether these revolutions or counter- revolutions actually lead to the long-term implementation of deliberate projects of social reorganization is another matter altogether. Very often, their outcome is to a large extent different from the intention of the main actors.

Human beings act consciously, but they can act with false consciousness. They do not necessarily understand why they want to realise certain social and (or) political plans, why they want to maintain or to change economic or juridical institutions; and especially, they rarely understand in a scientific sense the laws of social change, the material and social preconditions for successfully conserving or changing such institutions. Indeed, Marx claims that only with the discovery of the main tenets of historical materialism have we made a significant step forward towards understanding these laws, without claiming to be able to predict 'all' future developments of society.

Social change, social revolutions and counter-revolutions are furthermore occurring within determined material constraints. The level of development of the productive forces – essentially tools and human skills, including their effects upon the fertility of the soil – limits the possibilities of institutional change. Slave labour has shown itself to be largely incompatible with the factory system based upon contemporary machines. Socialism would not be durably built upon the basis of the wooden plough and the potter's wheel. A social revolution generally widens the scope for the development of the productive forces and leads to social progress in most fields of human activity in a momentous way. Likewise, an epoch of deep social crisis is ushered in when there is a growing conflict between the prevailing mode of production (i.e. the existing social order) on the one hand,

and the further development of the productive forces on the other. Such a social crisis will then manifest itself on all major fields and social activity: politics, ideology, morals and law, as well as in the realm of the economic life properly speaking.

Historical materialism thereby provides a measuring stick for human progress: the growth of the productive forces, measurable through the growth of the average productivity of labour, and the number, longevity and skill of the human species. This measuring stick in no way abstracts from the *natural* preconditions for human survival and human growth (in the broadest sense of the concept). Nor does it abstract from the conditional and partial character of such progress, in terms of social organisation and individual alienation.

In the last analysis, the division of society into antagonistic social classes rejects, from the point of view of historical materialism, an inevitable limitation of human freedom. For Marx and Engels, the real measuring rod of human freedom, i.e. of human wealth, is not 'productive labour'; this only creates the material pre-condition for that freedom.

The real measuring rod is leisure time, not in the sense of 'time for doing nothing' but in the sense of time freed from the iron necessity to produce and reproduce material livelihood, and therefore disposable for all-round and free development of the individual talents, wishes, capacities, potentialities, of each human being.

As long as society is too poor, as long as goods and services satisfying basic needs are too scarce, only part of society can be freed from the necessity to devote most of its life to 'work for a livelihood' (i.e. of forced labour, in the anthropological/sociological sense of the word, that is in relation to desires, aspirations and talents, not to a juridical status of bonded labour). That is essentially what represents the freedom of the ruling classes and their hangers-on, who are 'being paid to think', to create, to invent, to administer, because they have become free from the obligation to bake their own bread, weave their own clothes and build their own houses.

Once the productive forces are developed far enough to guarantee all human beings satisfaction of their basic needs by 'productive labour' limited to a minor fraction of lifetime (the half work-day or less), then the material need of the division of society in classes disappears. Then, there remains no objective basis for part of society to monopolise administration, access to information, knowledge, intellectual labour. For that reason, historical materialism explains both the reasons why class societies and class struggles arose in history, and why they will disappear in the future in a classless society of democratically self-administering associated producers.

Historical materialism therefore contains an attempt at explaining the origin, the functions and the future withering away of the state as a specific institution, as well as an attempt to explain politics and political activity in general, as an expression of social conflicts centred around different social interests (mainly, but not only, those of different social classes; important fractions of classes, as well as non-class social groupings, also come into play).

For Marx and Engels, the state is not existent with human society as such, or with 'organised society' or even with 'civilised society' in the abstract, neither is it the result of any voluntarily concluded 'social contract' between individuals. The state is the sum total of apparatuses, i.e. special groups of people separate and apart from the rest (majority) of society, that appropriate to themselves functions of a repressive or integrative nature which were initially exercised by all citizens.

This process of alienation occurs in conjunction with the emergence of social classes. The state is an instrument for fostering, conserving and reproducing a given class structure, and not a neutral arbiter between antagonistic class interests.

The emergence of a classless society is therefore closely intertwined, for adherents to historical materialism, with the process of withering away of the state, i.e. of gradual devolution to the whole of society (self-management, self-administration) of all specific functions today exercised by special apparatuses, i.e. of the dissolution of these apparatuses. Marx and Engels visualised the dictatorship of the proletariat, the last form of the state and of political class rule, as an instrument for assuring the transition from class society to classless society. It should itself be a state of a special kind, organising its own gradual disappearance.

We said above that, from the point of view of historical materialism, the immediate object of class struggle is the division of the social product between different social classes. Even the political class struggle in the final analysis serves that main purpose; but it also covers a much broader field of social conflicts. As all state activities have some bearing upon the relative stability of a given social formation, and the class rule to which it is submitted, the class struggle can extend to all fields of politics from foreign policy to educational problems and religious conflicts. This has of course to be proven through painstaking analysis, and not proclaimed as an axiom or a revealed truth. When conducted successfully, such exercises in class analysis and class definition of political, social and even literary struggles becomes impressive works of historical explanation, as for example Marx's **Class Struggles in France 1848-50**, Engels' **The German Peasant War**, Franz Mehring's **Die Lesssing-Legende**, Trotsky's **History of the Russian Revolution**, etc.

3. Marx's Economic Theory – General approach and influence

A general appraisal of Marx's method of economic analysis is called for prior to an outline of his main economic theories (theses and hypotheses). Marx is distinct from most important economists of the 19th and 20th centuries in that he does not consider himself at all an 'economist' pure and simple. The idea that 'economic science' as a special science completely separate from sociology, history, anthropology etc. cannot exist, underlies most of his economic analysis. Indeed, historical materialism is an attempt at unifying all social sciences, if not all sciences about humankind, into a single 'science of society'. For sure, within the framework of this general 'science of society', economic phenomena could and should be submitted to analysis as specific phenomena. So economic theory, economical science, has a definite autonomy after all; but it is only a partial and relative one.

Probably the best formula for characterising Marx's economic theory would be to call it an endeavour to explain the *social economy*. This would be true in a double sense. For Marx, there are no eternal economic laws, valid in every epoch of human prehistory and history. Each mode of production has its own specific economic laws, which lose their relevance once the general social framework has fundamentally changed. For Marx likewise, there are no economic laws separate and apart from specific relations between human beings, in the primary (but not only, as already summarised) social relations of production. All attempts to reduce economic problems to purely material, objective ones, to relations between things, or between things and human beings, would be considered by Marx as manifestations of mystification, of false consciousness, expressing itself through the attempted relocation of human relations. Behind relations between things, economic science should try to discover the specific relations between human beings which they hide. Real economic science has therefore also a demystifying function compared to vulgar 'economics', which takes a certain number of 'things' for granted without asking the questions: Are they really only what they appear to be? From where do they originate? What explains these appearances? What lies behind them? Where do they lead? How could they (will they) disappear? *Problemblindheit*, the refusal to see that facts are generally more problematic than they appear at first sight, is certainly not a reproach one could address to Marx's economic thought.

Marx's economic analysis is therefore characterised by a strong ground current of *historical relativism,* with a strong recourse to the genetical and evolutionary method of thinking (that is why the parallel with Darwin has often been made, sometimes in an excessive way). The formula 'genetic structuralism' has also been used in relation to Marx's general approach to economic analysis. Be that as it may, one could state that Marx's economic theory is essentially geared to the discovery of specific ‘laws of motion’ for successive modes of production. While his theoretical effort has been mainly centred around the discovery of these laws of motion for capitalist society, his work contains indications of such laws – different ones, to be sure – for pre-capitalist and post-capitalist social formations too.

The main link between Marx’s sociology and anthropology on the one hand, and his economic analysis on the other, lies in the key role of *social labour* as the basic anthropological feature underlying all forms of social organisation. Social labour can be organised in quite different forms, thereby giving rise to quite different economic phenomena (‘facts’). Basically different forms of social labour organisation lead to basically different sets of economic institutions and dynamics, following basically different logics (obeying basically different ‘laws of motion’).

All human societies must assure the satisfaction of a certain number of basic needs, in order to survive and reproduce themselves. This leads to the necessity of establishing some sort of equilibrium between social recognised needs, i.e. current consumption and current production. But this abstract banality does not tell us anything about the concrete way in which social labour is organised in order to achieve that goal.

Society can recognise all individual labour as *immediately social labour*. Indeed, it does so in innumerable primitive tribal and village communities, as it does in the contemporary *kibbutz*. Directly social labour can be organised in a despotic or in a democratic way, through custom and superstition as well as through an attempt at applying advanced science to economic organisation; but it will always be immediately recognised social labour, inasmuch as it is based upon *a priori* assignment of the producers to their specific work (again: irrespective of the form this assignation takes, whether it is voluntary or compulsory, despotic or simply through custom etc.).

But when social decision-taking about work assignation (and resource allocation closely tied to it) is fragmented into different units operating independently from each other – as a result of private control (property) of the means of production, in the economic and not necessarily the juridical sense of the word – then social labour in turn is fragmented into private labours which are not automatically recognised as socially necessary ones (whose expenditure is not automatically compensated by society). Then the private producers have to exchange parts or all of their products in order to satisfy some or all of their basic needs. Then these products become commodities, The economy becomes a (partial or generalised) market economy. Only by measuring the results of the sale of his products can the producer (or owner) ascertain what part of his private labour expenditure has been recognized (compensated) as social labour, and what part has not.

Even if we operate with such simple analytical tools as ‘directly social labour’, ‘private labour’, ‘socially recognised social labour’, we have to make quite an effort at abstracting from immediately apparent phenomena in order to understand their relevance for economic analysis. This is true for all scientific analysis, in natural as well as in social sciences. Marx’s economic analysis, as presented in his main books, has not been extremely popular reading; but then, there are not yet so many scientists in these circumstances. This has nothing to do with any innate obscurity of the author, but rather with the nature of scientific analysis as such. The relatively limited number of readers of Marx’s economic writings (the first English paperback edition of **Das Kapital** appeared only in 1974!) is clearly tied to Marx’s scientific rigour, his effort at a systematic and all-sided analysis of the phenomena of the capitalist economy.

But while his economic analysis lacked popularity, his political and historical projections became more and more influential. With the rise of independent working-class mass parties, an increasing number of these proclaimed themselves as being guided or influenced by Marx, at least in the epoch of the Second and the Third Internationals, roughly the half century from 1890 till 1940.

Beginning with the Russian revolution of 1917, a growing number of governments and of states claimed to base their policies and constitutions on concepts developed by Marx. (Whether this was legitimate or not is another question.) But the fact itself testifies to Marx's great influence on contemporary social and political developments, evolutionary and revolutionary alike.

Likewise, his diffused influence on social science, including academic economic theory, goes far beyond general acceptance or even substantial knowledge of his main writings. Some key ideas of historical materialism and of economic analysis which permeate his work – e.g. that economic interests to a large extent influence, if not determine, political struggles; that historic evolution is linked to important changes in material conditions; that economic crises ('the business cycle') are unavoidable under conditions of capitalist market economy – have become near-platitudes. It is sufficient to notice how major economists and historians strongly denied their validity throughout the 19th century and at least until the 1920s, to understand how deep has been Marx's influence on contemporary social science in general.

4. Marx's Labour Theory of Value

As an economist, Marx is generally situated in the continuity of the great classical school of Adam Smith and Ricardo. He obviously owes a lot to Ricardo, and conducts a running dialogue with that master in most of his mature economic writings.

Marx inherited the labour theory of value from the classical school. Here the continuity is even more pronounced; but there is also a radical break, For Ricardo, labour is essentially a *numeraire*, which enables a common computation of labour and capital as basic elements of production costs. For Marx, *labour is value*. Value is nothing but that fragment of the total labour potential existing in a given society in a certain period (e.g. a year or a month) which is used for the output of a given commodity, at the average social productivity of labour existing then and there, divided by the total number of these commodities produced. and expressed in hours (or minutes), days, weeks, months of labour.

Value is therefore essentially a social, objective and historically relative category, It is social because it is determined by the overall result of the fluctuating efforts of each individual producer (under capitalism: of each individual firm or factory). It is objective because it is given, once the production of a given commodity is finished, and is thus independent from personal (or collective) valuations of customers on the market place; and it is historically relative because it changes with each important change (progress or regression) of the average productivity of labour in a given branch of output, including in agriculture and transportation.

This does not imply that Marx's concept of value is in any way completely detached from consumption. It only means that the feedback of consumers' behaviour and wishes upon value is always mediated through changes in the allocation of labour inputs in production, labour being seen as subdivided into living labour and dead (dated) labour, i.e. tools and raw materials. The market emits signals to which the producing units react. Value changes after these reactions, not before them. Market price changes can of course occur prior to changes in value. In fact, changes in market prices are among the key signals which can lead to changes in labour allocation between different branches of production, i.e. to changes in labour quantities necessary to produce given commodities. But then, for Marx, values determine prices only basically and in the medium-term sense of the word. This determination only appears clearly as an explication of *medium and long-term price movements*. In the shorter run, prices fluctuate around values as axes. Marx never intended to negate the operation of market laws, of the law of supply and demand, in determining these short-term fluctuations.

The 'law of value' is but Marx's version of Adam Smith's 'invisible hand'. In a society dominated by private labour, private producers and private ownership of productive inputs, it is this 'law of value', an objective economic law operating behind the backs of all people, all 'agents' involved in production and consumption, which, in the final analysis, regulates the economy, determines what is produced and how it is produced (and therefore also what can be consumed). The 'law of value' regulates the exchange between commodities, according to the quantities of socially necessary abstract labour they embody (the quantity of such labour spent in their production). Through regulating the exchange between commodities, the 'law of value' also regulates, after some interval, the distribution of society's labour potential and of society's non-living productive resources between different branches of production. Again, the analogy with Smith's 'invisible hand' is striking.

Marx's critique of the 'invisible hand' concept does not dwell essentially on the analysis of how a market economy actually operates. It would above all insist that this operation is not eternal, not immanent in 'human nature', but created by specific historical circumstances, a product of a special way of social organisation, and due to disappear at some stage of historical evolution as it appeared during a previous stage. And it would also stress that this 'invisible hand' leads neither to the maximum of economic growth nor to the optimum of human wellbeing for the greatest number of individuals, i.e. it would stress the heavy economic and social price humankind had to pay, and is still currently paying, for the undeniable progress the market economy produced at a given stage of historical evolution.

The formula 'quantities of abstract human labour' refers to labour seen strictly as a fraction of the total labour potential of a given society at a given time, say a labour potential of 2 billion hours a year (1 million potential producers, each supposedly capable of working 2000 hours a year). It therefore implies making an abstraction of the specific trade or occupation of a given male or female producer, the product of a day's work of a weaver not being worth less or more than that of a peasant, a miner, a house-builder, a milliner or a seamstress. At the basis of that concept of 'abstract human labour' lies a social condition, a specific set of social relations of production, in which small independent producers are essentially equal. Without that equality, social division of labour, and therefore satisfaction of basic consumers' needs, would be seriously endangered under that specific organisational set-up of the economy. Such an equality between small commodity owners and producers is later transformed into an equality between owners of capital under the capitalist mode of production.

But the concept of the homogeneity of productive human labour, underlying that of 'abstract human labour' as the essence of value, does not imply a negation of the difference between skilled and unskilled labour. Again: a negation of that difference would lead to the breakdown of the necessary division of labour, as would any basic heterogeneity of labour inputs in different branches of output. It would then not pay to acquire skills: most of them would disappear. So Marx's labour theory of value, in an internally coherent way, leads to the conclusion that one hour of skilled labour represents more value than one hour of unskilled labour, say represents the equivalent of 1.5 hours of unskilled labour. The difference would result from the imputation of the labour it costs to acquire the given skill, While an unskilled labourer would have a labour potential of 120,000 hours during his adult life, a skilled labourer would only have a labour potential of 80,000 hours, 40,000 being used for acquiring, maintaining and developing his skill. Only if one hour of skilled labour embodies the same value of 1.5 hours of unskilled labour, will the equality of all 'economic agents' be maintained under these circumstances, i.e. will it 'pay' economically to acquire a skill.

Marx himself never extensively dwelled on this solution of the so-called *reduction problem*. This remains indeed one of the most obscure parts of his general economic theory. It has led to some, generally rather mild, controversy. Much more heat has been generated by another facet of Marx's labour theory of value, the so-called *transformation problem*. Indeed, from Böhm-Bawerk writing a century ago till the recent contributions of Sraffa (1960) and Steedman (1977), the way Marx dealt with the transformation of values into 'prices of production' in **Capital** Vol. III has been considered by many of his critics as the main problem of his 'system', as well as being a reason to reject the labour theory of value out of hand.

The problem arises out of the obvious modification in the functioning of a market economy when *capitalist* commodity production substitutes itself for *simple* commodity production. In simple commodity production, with generally stable technology and stable (or easily reproducible) tools, living labour is the only variable of the quantity and subdivision of social production. The mobility of labour is the only dynamic factor in the economy. As Engels pointed out in his Addendum to **Capital** Vol. III (Marx, g, pp, 1034-7), in such an economy, commodities would be exchanged at prices which would be immediately proportional to values, to the labour inputs they embody.

But under the capitalist mode of production, this is no longer the case. Economic decision-taking is not in the hands of the direct producers. It is in the hands of the capitalist *entrepreneurs* in the wider sense of the word (bankers – distributors of credit – playing a key role in that decision-taking, besides entrepreneurs in the productive sector properly speaking). Investment decisions, i.e. decisions for creating, expanding, reducing or closing enterprises, determine economic life. It is the *mobility of capital* and not the mobility of labour which becomes the motive force of the economy. Mobility of labour becomes essentially an epiphenomenon of the mobility of capital.

Capitalist production is production for profit. Mobility of capital is determined by existing or expected profit differentials. Capital leaves branches (countries, regions) with lower profits (or profit expectations) and flows towards branches (countries, regions) with higher ones. These movements lead to an equalisation of the rate of profit between different branches of production. But approximately equal returns on all invested capital (at least under conditions of prevailing ‘free competition’) coexist with unequal proportions of inputs of labour in these different branches. So there is a disparity between the direct value of a commodity and its ‘price of production’, that ‘price of production’ being defined by Marx as the sum of production costs (costs of fixed capital and raw materials plus wages) and the average rate of profit multiplied with the capital spent in the given production.

The so-called ‘transformation problem’ relates to the question of whether a *relation* can nevertheless be established between value and these ‘prices of production’, what is the degree of coherence (or incoherence) of the relation with the ‘law of value’ (the labour theory of value in general), and what is the correct quantitative way to express that relation, if it exists.

We shall leave aside here the last aspect of the problem, to which extensive analysis has recently been devoted (Mandel and Freeman, 1984). From Marx’s point of view, there is no incoherence between the formation of ‘prices of production’ and the labour theory of value. Nor is it true that he came upon that alleged difficulty when he started to prepare **Capital** Vol.III, i.e. to deal with capitalist competition, as several critics have argued (see e.g. Joan Robinson, 1942). In fact, his solution of the transformation problem is already present in the **Grundrisse**, before he even started to draft **Capital** Vol. I.

The sum total of value produced in a given country during a given span of time (e.g. one year) is determined by the sum total of labour-inputs. Competition and movements of capital cannot change that quantity, The sum total of values equals the sum total of ‘prices of production’. The only effect of capital competition and capital mobility is to *redistribute* that given sum – and this through a redistribution of surplus value (see below) – between different capitals, to the benefit of some and at the expense of others.

Now the redistribution does not occur in a haphazard or arbitrary way. Essentially value (surplus-value) is transferred from technically less advanced branches to technologically more advanced branches. And here the concept of ‘quantities of socially necessary labour’ comes into its own, under the conditions of constant revolutions of productive technology that characterise the capital mode of production. Branches with lower than average technology (organic composition of capital, see below) can be considered as wasting socially necessary labour. Part of the labour spent in production in their realm is therefore not compensated by society. Branches with higher than average technology (organic composition of capital) can be considered to be economising social labour; their labour inputs can therefore be considered as more intensive than average, embodying more value. In this way, the transfer of value (surplus-value) between different branches, far from being in contradiction with the law of value, is precisely the way it operates and should operate under conditions of ‘capitalist equality’, given the pressure of rapid technological change.

As to the logical inconsistency often supposedly to be found in Marx’s method of solving the ‘transformation problem’ – first advanced by von Bortkiewicz (1907) – it is based upon a misunderstanding in our opinion. It is alleged that in his ‘transformation schemas’ (or tables) Marx calculates inputs in ‘values’ and outputs in ‘prices of production’, thereby omitting the feedback effect of the latter on the former. But that feedback effect is unrealistic and unnecessary, once one recognises that inputs are essentially data. Movements of capital posterior to the purchase of machinery or raw materials, including the ups and dawns of prices of finished products produced with these raw materials, cannot lead to a change in prices and therefore of profits of the said machinery and raw materials, on sales which have already occurred. What critics present as an inconsistency between ‘values’ and ‘prices of production’ is simply a recognition of *two different time-frameworks* (cycles) in which the equalisation of the rate of profit has been achieved, a first one for inputs, and a second, later one for outputs.

5. Marx’s Theory of Rent

The labour theory of value defines value as the socially necessary quantity of labour determined by the average productivity of labour of each given sector of production. But these values are not mathematically fixed data. They are simply the expression of a *process* going on in real life, under capitalist commodity production. So this average is only ascertained in the course of a certain time-span. There is a lot of logical argument and empirical evidence to advance the hypothesis that the normal time-span for essentially modifying the value of commodities is the business cycle, from one crises of over-production (recession) to the next one.

Before technological progress and (or) better (more ‘rational’) labour organisation etc. determines a more than marginal change (in general: decline) in the value of a commodity, and the crisis eliminates less efficient firms, there will be a coexistence of firms with various ‘individual values’ of a given commodity in a given branch of output, even assuming a single market price. So, in his step-for-step approach towards explaining the immediate phenomena (facts of economic life) like prices and profits, by their essence, Marx introduces at this point of his analysis a new mediating concept, that of *market value*.

The market value of a commodity is the ‘individual value’ of the firm, or a group of firms, in a given branch of production, around which the market price will fluctuate. That ‘market value’ is not necessarily the mathematical (weighted) average of labour expenditure of all firms of that branch. It can be below, equal or above that average, for a certain period (generally less than the duration of the business cycle, at least under ‘free competition’), according to whether social demand is saturated, just covered or to an important extent not covered by current output plus existing stocks. In these three cases respectively, the more (most) efficient firms, the firms of average efficiency, or even firms with labour productivity below average, will determine the market value of that given commodity.

This implies that the more efficient firms enjoy *surplus profits* (profits over and above the average profit) in case 2 and 3 and that a certain number of firms work at less than average profit in all three cases, but especially in case 1.

The mobility of capital, i.e. normal capitalist competition, generally eliminates such situations after a certain lapse of time. But when that mobility of capital is impeded for long periods by either unavoidable scarcity (natural conditions that are not renewable or non-substitutable, like land and mineral deposits) or through the operation of institutional obstacles (private property of land and mineral resources forbidding access to available capital, except in exchange for payments over and above average profit), these surplus profits can be frozen and maintained for decades. They thus become *rents*, of which *ground rent* and *mineral rent* are the most obvious examples in Marx's time, extensively analysed in **Capital** Vol.III.

Marx's theory of rent is the most difficult part of his economic theory, the one which has witnessed fewer comments and developments, by followers and critics alike, than other major parts of his 'system'. But it is not obscure. And in contrast to Ricardo's or Rodbertus's theories of rent, it represents a straight-forward application of the labour theory of value. It does not imply any emergence of 'supplementary' value (surplus value, profits) in the market, in the process of circulation of commodities, which is anathema to Marx and to all consistent upholders of the labour theory of value. Nor does it in any way suggest that land or mineral deposits 'create' value. It simply means that in agriculture and mining less productive labour (as in the general case analysed above) determines the market value of food or minerals, and that therefore more efficient farms and mines enjoy surplus profits which Marx calls *differential* (land and mining) *rent*. It also means that as long as productivity of labour in agriculture is generally below the average of the economy as a whole (or more correctly: that the organic composition of capital, the expenditure in machinery and raw materials as against wages, is inferior in agriculture to that in industry and transportation), the sum total of surplus-value produced in agriculture will accrue to landowners + capitalist farmers taken together, and will not enter the general process of (re)distribution of profit throughout the economy as a whole.

This creates the basis for a supplementary form of rent, over and above differential rent, rent which Marx calls *absolute land rent*. This is, incidentally, the basis for a long-term separation of capitalist landowners from entrepreneurs in farming or animal husbandry, distinct from feudal or semi-feudal landowners or great landowners under conditions of predominantly petty commodity production, or in the Asiatic mode of production, with free peasants.

The validity of Marx's theory of land and mining rents has been confirmed by historical evidence, especially in the 20th century. Not only has history substantiated Marx's prediction that, in spite of the obstacle of land and mining rent, mechanisation would end up by penetrating food and raw materials production too, as it has for a long time dominated industry and transportation, thereby causing a growing decline of differential rent (this has occurred increasingly in agriculture in the last 25-50 years, first in North America, and then in Western Europe and even elsewhere). It has also demonstrated that once the structural scarcity of food disappears, the institutional obstacle (private property) loses most of its efficiency as a brake upon the mobility of capital. Therefore the participation of surplus-value produced in agriculture in the general process of profit equalisation throughout the economy cannot be prevented any more. Thereby absolute rent tends to wither away and, with it, the separation of land ownership from entrepreneurial farming and animal husbandry. It is true that farmers can then fall under the sway of the banks, but they do so as private owners of their land which becomes mortgaged, not as share-croppers or entrepreneurs renting land from separate owners.

On the other hand, the reappearance of structural scarcity in the realm of energy enabled the OPEC countries to multiply the price of oil by ten in the 1970s, i.e. to have it determined by the oilfields where production costs are the highest, thereby assuring the owners of the cheapest oil wells in Arabia, Iran, Libya, etc. huge differential minerals rents.

Marx's theory of land and mineral rent can be easily extended into a *general theory of rent*, applicable to all fields of production where formidable difficulties of entry limit mobility of capital for extended periods of time. It thereby becomes the basis of a *marxist theory of monopoly and monopoly surplus profits*, i.e. in the form of cartel rents (Hilferding, 1910) or of technological rent (Mandel, 1972). Lenin's and Bukharin's theories of surplus profit are based upon analogous but not identical reasoning (Bukharin, 1914, 1926; Lenin, 1917).

But in all these cases of general application of the marxist theory of rent, the same caution should apply as Marx applied to his theory of land rent. By its very nature, capitalism, based upon private property, i.e. ‘many capitals’ – that is competition – cannot tolerate any ‘eternal’ monopoly, a ‘permanent’ surplus profit deducted from the sum total of profits which is divided among the capitalist class as a whole. Technological innovations, substitution of new products for old ones including the fields of raw materials and of food, will in the long run reduce or eliminate all monopoly situations, especially if the profit differential is large enough to justify huge research and investment outlays.

6. Marx’s Theory of Money

In the same way as his theory of rent, Marx’s theory of money is a straightforward application of the labour theory of value. As value is but the embodiment of socially necessary labour, commodities exchange with each other in proportion to the labour quanta they contain. This is true for the exchange of iron against wheat, as it is true for the exchange of iron against gold or silver. Marx’s theory of money is therefore in the first place a *commodity theory of money*. A given commodity can play the role of universal medium of exchange, as well as fulfil all the other functions of money, precisely because it is a commodity, i.e. because it is itself the product of socially necessary labour. This applies to the precious metals in the same way it applies to all the various commodities which, throughout history, have played the role of money.

It follows that strong upheavals in the ‘intrinsic’ value of the money-commodity will cause strong upheavals in the general price level. In Marx’s theory of money, (market) prices are nothing but the expression of the value of commodities in the value of the money commodity chosen as a monetary standard. If £1 sterling = $^{1}/_{10}$ ounce of gold, the formula ‘the price of 10 quarters of wheat is £1’ means that 10 quarters of wheat have been produced in the same socially necessary labour times as $^{1}/_{10}$ ounce of gold. A strong decrease in the average productivity of labour in gold mining (as a result for example of a depletion of the richer gold veins) will lead to a general depression of the average price level, all other things remaining equal. Likewise, a sudden and radical increase in the average productivity of labour in gold mining, through the discovery of new rich gold fields (California after 1848; the Rand in South Africa in the 1890s) or through the application of new revolutionary technology, will lead to a general increase in the price level of all other commodities.

Leaving aside short-term oscillations, the general price level will move in medium and long-term periods according to the *relation* between the fluctuations of the productivity of labour in agriculture and industry on the one hand, and the fluctuations of the productivity of labour in gold mining (if gold is the money-commodity), on the other.

Basing himself on that commodity theory of money, Marx therefore criticized as inconsistent Ricardo’s quantity theory. But for exactly the same reason of a consistent application of the labour theory of value, the quantity of money in circulation enters Marx’s economic analysis when he deals with the phenomenon of *paper* money.

As gold has an intrinsic value, like all other commodities, there can be no ‘gold inflation’, as little as there can be a ‘steel inflation’. An abstraction made of short-term price fluctuations caused by fluctuations between supply and demand, a persistent decline of the value of gold (exactly as for all other commodities) can only be the result of a persistent increase in the average productivity of labour in gold mining and not of an ‘excess’ of circulation in gold. If the demand for gold falls consistently, this can only indirectly trigger a decline in the value of gold through causing the closure of the least productive old mines. But in the case of the money-commodity, such overproduction can hardly occur, given the special function of gold of serving as a universal reserve fund, nationally and internationally. It will always therefore find a buyer, be it not, of course, always at the same ‘prices’ (in Marx’s economic theory, the concept of the ‘price of gold’ is meaningless.

As the price of a commodity is precisely its expression in the value of gold, the 'price of gold' would be the expression of the value of gold in the value of gold).

Paper money, banks notes, are a *money sign* representing a given quantity of the money-commodity. Starting from the above-mentioned example, a banknote of £1 represents $^{1}/_{10}$ ounce of gold. This is an objective 'fact of life', which no government or monetary authority can arbitrarily alter. It follows that any emission of paper money in excess of that given proportion will automatically lead to an increase in the general price level, always other things remaining equal. If £1 suddenly represents only $^{1}/_{20}$ ounce of gold, because paper money circulation has doubled without a significant increase in the total labour time spent in the economy, then the price level will tend to double too. The value of $^{1}/_{10}$ ounce of gold remains equal to the value of 10 quarters of wheat. But as $^{1}/_{10}$ ounce of gold is now represented by £2 in paper banknotes instead of being represented by £1, the price of wheat will move from £1 to £2 for 10 quarters (from two shillings to four shillings a quarter before the introduction of the decimal system).

This does not mean that in the case of paper money, Marx himself has become an advocate of a quantity theory of money. While there are obvious analogies between his theory of paper money and the quantity theory, the main difference is the rejection by Marx of any *mechanical automatism* between the quantity of paper money emitted on the one hand, and the general dynamic of the economy (including on the price level) on the other.

In Marx's explanation of the movement of the capitalist economy in its totality, the formula *ceteris paribus* is meaningless. Excessive (or insufficient) emission of paper money never occurs in a vacuum. It always occurs at a given stage of the business cycle, and in a given phase of the longer-term historical evolution of capitalism. It is thereby always combined with given ups and downs of the rate of profit, of productivity of labour, of output, of market conditions (overproduction or insufficient production). Only in connection with these other fluctuations can the effect of paper money 'inflation' or 'deflation' be judged, including the effect on the general price level. The key variables are in the field of production. The key synthetic resultant is in the field of profit. Price moments are generally epiphenomena as much as they are signals. To untwine the tangle, more is necessary than a simple analysis of the fluctuations of the quantity of money.

Only in the case of extreme runaway inflation of paper money would this be otherwise; and even in that border case, *relative* price movements (different degrees of price increases for different commodities) would still confirm that, in the last analysis, the law of values rules, and not the arbitrary decision of the Central Banks or any other authority controlling or emitting paper money.

7. Marx's Theory of Surplus Value

Marx himself considered his theory of surplus-value his most important contribution to the progress of economic analysis (Marx, letter to Engels of 24 August 1867). It is through this theory that the wide scope of his sociological and historical thought enables him simultaneously to place the capitalist mode of production in his historical context, and to find the root of its inner economic contradictions and its laws of motion in the specific relations of production on which it is based.

As said before, Marx's theory of classes is based on the recognition that in each class society, part of society (the ruling class) appropriates the social surplus product. But that surplus product can take three essentially different forms (or a combination of them). It can take the form of straightforward unpaid surplus labour, as in the slave mode of production, early feudalism or some sectors of the Asiatic mode of production (unpaid *corvée* labour for the Empire). It can take the form of goods appropriated by the ruling class in the form of use-values pure and simple (the products of surplus labour), as under feudalism when feudal rent is paid in a certain amount of produce (produce rent) or in its more modern remnants, such as sharecropping. And it can take a money form, like money-rent in the final phases of feudalism, and capitalist profits. Surplus-value is essentially just that: the *money form of the social surplus product* or, what amounts to the same, the money product of surplus labour. It has therefore a common root with all other forms of surplus product: unpaid labour.

This means that Marx's theory of surplus-value is basically a *deduction* (or residual) *theory of the ruling classes' income*. The whole social product (the net national income) is produced in the course of the process of production, exactly as the whole crop is harvested by the peasants. What happens on the market (or through appropriation of the produce) is a distribution (or redistribution) of what already has been created. The surplus product, and therefore also its money form, surplus-value, is the residual of that new (net) social product (income) which remains after the producing classes have received their compensation (under capitalism: their wages). This 'deduction' theory of the ruling classes' income is thus *ipso factor* an exploitation theory. Not in the ethical sense of the word – although Marx and Engels obviously manifested a lot of understandable moral indignation at the fate of all the exploited throughout history, and especially at the fate of the modern proletariat – but in the economic one. The income of the ruling classes can always be reduced in the final analysis to the product of unpaid labour: that is the heart of Marx's theory of exploitation.

That is also the reason why Marx attached so much importance to treating *surplus-value as a general category*, over and above profits (themselves subdivided into industrial profits, bank profits, commercial profits etc.), interest and rent, which are all part of the total surplus product produced by wage labour. It is this general category which explains both the existence (the common interest) of the ruling class (all those who live off surplus value), and the origins of the class struggle under capitalism.

Marx likewise laid bare the economic mechanism through which surplus-value originates. At the basis of that economic mechanism is a huge social upheaval which started in Western Europe in the 15th century and slowly spread over the rest of the continent and all other continents (in many so-called underdeveloped countries, it is still going on to this day).

Through many concomitant economic (including technical), social, political and cultural transformations, the mass of the direct producers, essentially peasants and handicraftsmen, are separated from their means of production and cut off from free access to the land. They are therefore unable to produce their livelihood on their own account. In order to keep themselves and their families alive, they have to hire out their arms, their muscles and their brains, to the owners of the means of production (including land). If and when these owners have enough money capital at their disposal to buy raw materials and pay wages, they can start to organise production on a capitalist basis, using wage labour to transform the raw materials which they buy, with the tools they own, into finished products which they then automatically own too.

The capitalist mode of production thus presupposes that the producers' *labour power has become a commodity*. Like all other commodities, the commodity labour power has an exchange value and a use value. The exchange value of labour power, like the exchange value of all other commodities, is the amount of socially necessary labour embodied in it, i.e. its reproduction costs. This means concretely the value of all the consumer goods and services necessary for a labourer to work day after day, week after week, month after month, at approximately the same level of intensity, and for the members of the labouring classes to remain approximately stable in number and skill (i.e. for a certain number of working-class children to be fed, kept and schooled, so as to replace their parents when they are unable to work any more, or die). But the use value of the commodity labour power is precisely its capacity *to create new value*, including its potential to create more value than its own reproduction costs. Surplus-value is but that difference between the total new value created by the commodity labour power, and its own value, its own reproduction costs. The whole marxian theory of surplus-value is therefore based upon that subtle distinction between 'labour power' and 'labour' (or value). But there is nothing 'metaphysical' about this distinction. It is simply an explanation (demystification) of a process which occurs daily in millions of cases.

The capitalist does not buy the worker's 'labour'. If he did that there would be obvious theft, for the worker's wage is obviously smaller than the total value he adds to that of the raw materials in the course of the process of production. No: the capitalist buys 'labour power', and often (not always of course) he buys it at its *justum pretium*, at its real value. So he feels unjustly accused when he is said to have caused a 'dishonest' operation. The worker is victim not of vulgar theft but of a social set-up which condemns him first to transform his productive capacity into a commodity, then to sell that labour power on a specific market (the labour market) characterised by institutional inequality, and finally to content himself with the market price he can get for that commodity, irrespective of whether the new value he creates during the process of production exceeds that market price (his wage) by a small amount, a large amount, or an enormous amount.

The labour power the capitalist has bought 'adds value' to that of the used-up raw materials and tools (machinery, buildings etc.). If, and until that point of time, this added value is inferior or equal to the workers' wages, surplus-value cannot originate. But in that case, the capitalist has obviously no interest in hiring wage labour. He only hires it because that wage labour has the quality (the use value) to add to the raw materials' value more than its own value (i.e. its own wages). This 'additional added value' (the difference between total 'value added' and wages) is precisely surplus-value. Its emergence from the process of production is the precondition for the capitalists' hiring workers, for the existence of the capitalist mode of production.

The institutional inequality existing on the labour market (masked for liberal economists, sociologists and moral philosophers alike by juridical equality) arises from the very fact that the capitalist mode of production is based upon generalised commodity production, generalised market economy. This implies that a propertyless labourer, who owns no capital, who has no reserves of larger sums of money but who has to buy his food and clothes, pay his rent and even elementary public transportation for journeying between home and workplace, *in a continuous* way in exchange of money, is under the *economic compulsion* to sell the only commodity he possesses, to wit his labour power, also on a continuous basis. He cannot withdraw from the labour market until the wages go up. He cannot wait.

But the capitalist, who has money reserves, can temporarily withdraw from the labour market. He can lay his workers off, can even close or sell his enterprise and wait a couple of years before starting again in business. The institutional differences makes price determination of the labour market a game with loaded dice, heavily biased against the working class. One just has to imagine a social set-up in which each citizen would be guaranteed an annual minimum income by the community, irrespective of whether he is employed or not, to understand that 'wage determination' under these circumstances would be quite different from what it is under capitalism. In such a set-up the individual would really have the economic *choice* whether to sell his labour power to another person (or a firm) or not. Under capitalism, he has no choice. His is forced by economic compulsion to go through that sale, practically at any price.

The economic function and importance of trade unions for the wage-earners also clearly arises from that elementary analysis. For it is precisely the workers' 'combination' and their assembling a collective resistance fund (what was called by the first French unions *caisses de résistance*, 'reserve deposits') which enables them, for example through a strike, to withdraw the supply of labour power temporarily from the market so as to stop a downward trend of wages or induce a wage increase. There is nothing 'unjust' in such a temporary withdrawal of the supply of labour power, as there are constant withdrawals of demand for labour power by the capitalists, sometimes on a huge scale never equalled by strikes. Through the functioning of strong labour unions, the working class tries to correct, albeit partially and modestly, the institutional inequality on the labour market of which it is a victim, without ever being able to neutralise it durably or completely.

It cannot neutralise it durably because in the very way in which capitalism functions there is a powerful built-in corrective in favour of capital: *the inevitable emergence of an industrial reserve army of labour*. There are three key sources for that reserve army: the mass of precapitalist producers and self-employed (independent peasants, handicraftsmen, trades-people, professional people, small and medium-sized capitalists); the mass of housewives (and to a lesser extent, children); the mass of the wage-earners themselves, who potentially can be thrown out of employment.

The first two sources have to be visualised not only in each capitalist country seen separately but on a world scale, through the operations of international migration. They are still unlimited to a great extent, although the number of wage-earners the world over (including agricultural wage labourers) has already passed the one billion mark. As the third source, while it is obviously not unlimited (if wage labour would disappear altogether, if all wage labourers would be fired, surplus-value production would disappear too; that is why 'total robotism' is impossible under capitalism), its reserves are enormous, precisely in tandem with the enormous growth of the absolute number of wage earners.

The fluctuations of the industrial reserve army are determined both by the business cycle and by long-term trends of capital accumulation. Rapidly increasing capital accumulation attracts wage labour on a massive scale, including through international migration. Likewise, deceleration, stagnation or even decline of capital accumulation inflates the reserve army of labour. There is thus an upper limit to wage increases, when profits (realised profits and expected profits) are 'excessively' reduced in the eyes of the capitalists, which triggers off such decelerated, stagnating or declining capital accumulation, thereby decreasing employment and wages, till a 'reasonable' level of profits is restored. This process does not correspond to any 'natural economic law' (or necessity), nor does it correspond to any 'immanent justice'. It just expresses the inner logic of the *capitalist* mode of production, which is geared to profit. Other forms of economic organisation could function, have functioned and are functioning on the basis of other logics, which do not lead to periodic massive unemployment. On the contrary, a socialist would say – and Marx certainly thought so – that the capitalist system is an 'unjust', or better stated 'alienating', 'inhuman' social system, precisely because it cannot function without periodically reducing employment and the satisfaction of elementary needs for tens of millions of human beings.

Marx's theory of surplus-value is therefore closely intertwined with a *theory of wages* which is far away from Malthus's, Ricardo's or the early socialists' (like Ferdinand Lassalle's) 'iron law of wages', in which wages tend to fluctuate around the physiological minimum. That crude theory of 'absolute pauperisation' of the working class under capitalism, attributed to Marx by many authors (Popper, 1945, et al.), is not Marx's at all, as many contemporary authors have convincingly demonstrated (see among others Rosdolsky, 1968). Such an 'iron law of wages' is essentially a demographic one, in which birth rates and the frequency of marriages determine the fluctuation of employment and unemployment and thereby the level of wages.

The logical and empirical inconsistencies of such a theory are obvious. Let it be sufficient to point out that while fluctuations in the supply of wage-labourers are considered essential, fluctuations in the demand for labour power are left out of the analysis. It is certainly a paradox that the staunch opponent of capitalism, Karl Marx, pointed out as early as in the middle of the 19th century the potential for wage increases under capitalism, even though not unlimited in time and space. Marx also stressed the fact that for each capitalist, wage increases of other capitalists' workers are considered increases of potential purchasing power, not increases in costs.

Marx distinguishes two parts in the workers' wage, two elements of reproduction costs of the commodity labour power. One is purely physiological, and can be expressed in calories and energy quanta; this is the bottom below which the wage cannot fall without destroying slowly rapidly the workers' labour capacity. The second one is historical-moral, as Marx calls it, and consists of those additional goods and services which a shift in the class relationship of forces, such as a victorious class struggle, enables the working class to incorporate into the average wage, the socially necessary (recognised) reproduction costs of the commodity labour power (e.g. holidays after the French general strike of June 1936). This part of the wage is essentially flexible. It will differ from country to country, continent to continent and from epoch to epoch, according to many variables. But it has the upper limit indicated above: the ceiling from which profits threaten to disappear, or to become insufficient in the eyes of the capitalists, who then go on an ‘investment strike’.

So Marx’s theory of wages is essentially an *accumulation-of-capital theory of wages* which sends us back to what Marx considered the first ‘law of motion’ of the capitalist mode of production: the compulsion for the capitalists to step up constantly the rate of capital accumulation.

8. The Laws of Motion of the Capitalist Mode of Production

If Marx's theory of surplus-value is his most revolutionary contribution to economic science, his discovery of the basic long-term ‘laws of motion’ (development trends) of the capitalist mode of production constitutes undoubtedly his most impressive scientific achievement. No other 19th-century author has been able to foresee in such a coherent way how capitalism would function, would develop and would transform the world, as did Karl Marx. Many of the most distinguished contemporary economists, starting with Wassily Leontief (1938), and Joseph Schumpeter (1942) have recognised this.

While some of these ‘laws of motion’ have obviously created much controversy, we shall nevertheless list them in logical orders rather than according to the degree of consensus they command.

(a) **The capitalist's compulsion to accumulate.** Capital appears in the form of accumulated money, thrown into circulation in order to increase in value. No owner of money capital will engage in business in order to recuperate exactly the sum initially invested, and nothing more than that. By definition, the search for profit is at the basis of all economic operations by owners of capital.

Profit (surplus-value, accretion of value) can originate outside the sphere of production in a precapitalist society. It represents then essentially a *transfer of value* (so-called primitive accumulation of capital); but under the capitalist mode of production, in which capital has penetrated the sphere of production and dominates it, surplus-value is currently produced by wage labour. It represents a constant *increase in value*.

Capital can only appear in the form of *many capitals*, given its very historical-social origin in private property (appropriation) of the means of production. ‘Many capitals’ imply unavoidable competition. Competition in a capitalist mode of production is competition for selling commodities in an anonymous market. While surplus-value is produced in the process of production, it is *realised* in the process of circulation, i.e. through the sale of the commodities. The capitalist wants to sell at maximum profit. In practice, he will be satisfied if he gets the average profit, which is a percentage really existing in his consciousness (e.g. Mr Charles Wilson, the then head of the US automobile firm General Motors, stated before a Congressional enquiry: we used to fix the expected sales price of our cars by adding 15% to production costs). But he can never be sure of this. He cannot even be sure that all the commodities produced will and a buyer.

Given these uncertainties, he has to strive constantly to get the better of his competitors. This can only occur through operating with more capital. This means that at least part of the surplus-value produced will not be unproductively consumed by the capitalists and their hangers-on through luxury consumption, but will be accumulated, added to the previously existing capital.

The inner logic of capitalism is therefore not only to ‘work for profit’, but also to ‘work for capital accumulation’. ‘Accumulate, accumulate; that is Moses and the Prophets’, states Marx in **Capital**, Vol. I. Capitalists are *compelled* to act in that way as a result of competition. It is competition which basically fuels this terrifying snowball logic: initial value of capital – accretion of value (surplus-value) – accretion of capital – more accretion of surplus-value – more accretion of capital etc. Without competition, the fire of growth would burn out.

(b) **The tendency towards constant technological revolutions.** In the capitalist mode of production, accumulation of capital is in the first place accumulation of productive capital, or capital invested to produce more and more commodities. Competition is therefore above all competition between productive capitals, i.e. ‘many capitals’ engaged in mining, manufacturing, transportation, agriculture, telecommunications. The main weapon in competition between capitalist firms is cutting production costs. More advanced production techniques and more ‘rational’ labour organisation are the main means to achieve that purpose. The basic trend of capital accumulation in the capitalist mode of production is therefore a trend towards more and more sophisticated machinery. Capital growth takes the dual form of higher and higher value of capital and of constant revolutions in the techniques of production, of constant technological progress.

(c) **The capitalists' unquenchable thirst for surplus-value extraction.** The compulsion for capital to grow, the irresistible urge for capital accumulation, realises itself above all through a constant drive for the increase of the production of surplus-value. Capital accumulation is nothing but surplus-value capitalisation, the transformation of part of the new surplus-value into additional capital. There is no other source of additional capital than additional surplus-value produced in the process of production.

Marx distinguishes two different forms of additional surplus-value production. *Absolute surplus-value* accretion occurs essentially through the extension of the work day. If the worker reproduces the equivalent of his wages in 4 hours a day, an extension of the work day from 10 to 12 hours will increase surplus-value from 6 to 8 hours. *Relative surplus-value* accretion occurs through an increase of the productivity of labour in the wage-goods sector of the economy. Such an increase in productivity implies that the equivalent of the value of an identical basket of goods and services consumed by the worker could be produced in 2 hours instead of 4 hours of labour. If the work day remains stable at 10 hours and real wages remain stable too, surplus-value will then increase from 6 to 8 hours.

While both processes occur throughout the history of the capitalist mode of production (viz. the contemporary pressure of employers in favour of overtime!), the first one was prevalent first, the second one became prevalent since the second half of the 19th century, first in Britain, France and Belgium, then in the USA and Germany, later in the other industrialized capitalist countries, and later still in the semi-industrialised ones. Marx calls this process the *real subsumption* (subordination) *of labour under capital*, for it represents not only an economic but also a physical subordination of the wage-earner under the machine. This physical subordination can only be realized through social control. The history of the capitalist mode of production is therefore also the history of successive forms of - tighter and tighter - control of capital over the workers inside the factories (Braverman, 1974); and of attempts at realising that tightening of control in society as a whole.

The increase in the production of relative surplus-value is the goal for which capitalism tends to periodically substitute machinery for labour, i.e. to expand the industrial reserve army of labour. Likewise, it is the main tool for maintaining a modicum of social equilibrium, for when productivity of labour strongly increases, above all in the wage-good producing sectors of the economy, real wages and profits (surplus-value) can both expand simultaneously. What were previously luxury goods can even become mass-produced wage-goods.

(d) **The tendency towards growing concentration and centralisation of capital.** The growth of the value of capital means that each successful capitalist firm will be operating with more and more capital. Marx calls this the tendency towards growing concentration of capital. But in the competitive process, there are victors and vanquished. The victors grow. The vanquished go bankrupt or are absorbed by the victors. This process Marx calls the centralisation of capital. It results in a declining number of firms which survive in each of the key fields of production. Many small and medium-sized capitalists disappear as independent business men and women. They become in turn salary earners, employed by successful capitalism firms. Capitalism itself is the big ‘expropriating’ force, suppressing private property of the means of production for many, in favour of private property for few.

(e) **The tendency for the ‘organic composition of capital’ to increase.** Productive capital has a double form. It appears in the form of *constant* capital: buildings, machinery, raw materials, energy, It appears in the form of *variable* capital: capital spent on wages of productive workers. Marx calls the part of capital used in buying labour power variable, because only that part produces additional value. In the process of production, the value of constant capital is simply maintained (transferred *in toto* or in part into the value of the finished product). Variable capital on the contrary is the unique source of ‘added value’.

Marx postulates that the basic historic trend of capital accumulation is to increase investment in constant capital at a quicker pace than investment in variable capital; the relation between the two he calls the ‘organic composition of capital’. This is both a technical/physical relation (a given production technique implies the use of a given number of productive wage earners even if not in an absolutely mechanical way) and a value relation. The trend towards an increase in the ‘organic composition of capital’ is therefore a historical trend towards *basically labour-saving technological progress*.

This tendency has often been challenged by critics of Marx. Living in the age of semi-automation and ‘robotism’, it is hard to understand that challenge. The conceptual confusion on which this challenge is most based is an operation with the ‘national wage bill’, i.e. a confusion between wages in general and variable capital, which is only the wage bill of productive labour. A more correct index would be the part of the labour costs in total production costs in the manufacturing (and mining) sector. It is hard to deny that this proportion shows a downward secular trend.

(f) **The tendency of the rate of profit to decline.** For the workers, the basic relation they are concerned with is the rate of surplus-value, i.e. the division of ‘value added’ between wages and surplus-value. When this goes up, their exploitation (the unpaid labour they produce) obviously goes up. For the capitalists, however, this relationship is not meaningful. They are concerned with the relation between surplus-value and the *totality* of capital invested, never mind whether in the form of machinery and raw materials or in the form of wages. This relation is the *rate of profit*. It is a function of two variables, the organic composition of capital and the rate of surplus-value. If the value of constant capital is represented by c, the value of variable capital (wages of productive workers) by v and surplus-value by s, the rate of profit will be $s/(c + v)$. This can be rewritten as $[s/v]/[(c+v)/v]$ with the two variables emerging ($(c + v)/v$ obviously reflects c/v).

Marx postulates that the increase in the rate of surplus value has definite limits, while the increase in the organic composition of capital has practically none (automation, robotism). There will be a basic tendency for the rate of profit to decline.

This is however absolutely true only on a very long-term, i.e. essentially ‘secular’, basis. In other time-frameworks, the rate of profit can fluctuate under the influence of countervailing forces. Constant capital can be devalorised, through ‘capital saving’ technical process, and through economic crises (see below). The rate of surplus-value can be strongly increased in the short or medium terms although each strong increase makes a further increase more difficult; and capital can flow to countries (e.g. ‘Third World’ ones) or branches (e.g. service sectors) where the organic composition of capital is significantly lower than in the previously industrialised ones, thereby raising the average rate of profit.

Finally, the increase in the *mass of surplus-value* - especially through the extension of wage labour in general, i.e. the total number of workers - offsets to a large extent the depressing effects of moderate declines of the average rate of profit. Capitalism will not go out of business if the mass of surplus-value produced increases ‘only’ from £10 to 17 billion, while the total mass of capital has moved from £100 to 200 billion; and capital accumulation will not stop under these circumstances, nor necessarily slow down significantly. It would be sufficient to have the unproductively consumed part of surplus-value pass e.g. from £3 to £2 billion, to obtain a rate of capital accumulation of $^{15}/_{200}$, i.e. 7.5%, even higher than the previous one of $^{7}/_{100}$, in spite of a decline of the rate of profit from 10 to 8.5%.

(g) **The inevitability of class struggle under capitalism.** One of the most impressive projections by Marx was that of the inevitability of elementary class struggle under capitalism. Irrespective of the social global framework or of their own historical background, wage-earners will fight everywhere for higher real wages and a shorter work day. They will form elementary organisations for the collective instead of the individual sale of the commodity labour power, i.e., trade unions. While at the moment Marx made that projection there were less than half a million organised workers in at the most half a dozen countries in the world, today trade unions encompass hundreds of millions of wage-earners spread around the globe. There is no country, however, remote it might be, where the introduction of wage labour has not led to the appearance of worker's coalitions.

While elementary class struggle and elementary unionisation of the working class are inevitable under capitalism, higher, especially political forms of class struggle, depend on a multitude of variables which determine the rapidity with which they extend beyond smaller minorities of each ‘national’ working class and internationally. But there too the basic secular trend is clear. There were in 1900 innumerably more conscious socialists than in 1850, fighting not only for better wages but, to use Marx’s words, for the abolition of wage labour and organising working class parties for that purpose. There are today many more than in 1900.

(h) **The tendency towards growing social polarisation.** From two previously enumerated trends, the trend towards growing centralisation of capital and the trend towards the growth of the mass of surplus-value, flow the trend towards growing social polarisation under capitalism. The proportion of the active population represented by wage-labour in general, i.e. by the modern proletariat (which extends far beyond productive workers in and by themselves), increases. The proportion represented by self-employed (small, medium-sized and big capitalists, as well as independent peasants, handicraftsmen, trades-people and ‘free professions’ working without wage-labour) decreases. In fact, in several capitalist countries the first category has already passed the 90 per cent mark, while in Marx's time it was below 50 per cent everywhere but in Britain. In most industrialised (imperialist) countries, it has reached 80-85 per cent.

This does not mean that the petty entrepreneurs have tended to disappear. 10 or 15-20 per cent out of 30 million people, not to say out of 120 million, still represents a significant social layer. While many small businesses disappear, especially in times of economic depression, as a result of severe competition, they also are constantly created, especially in the interstices between big firms, and in new sectors where they play an exploratory role. Also, the overall social results of growing proletarisation are not simultaneous with the economic process in and by itself. From the point of view of class consciousness, culture, political attitude, there can exist significant time-lags between the transformation of an independent farmer, grocer or doctor into a wage-earner, and his acceptance of socialism as an overall social solution for his own and society's ills. But again, the secular trend is towards *growing homogeneity*, less and less heterogeneity, of the mass of the wage-earning class, and not the other way around. It is sufficient to compare the differences in consumer patterns, attitudes towards unionisation or voting habits between manual workers, bank employees and government functionaries in say 1900 and today, to note that they have decreased and not increased.

(i) **The tendency towards growing objective socialisation of labour.** Capitalism starts in the form of private production on a medium-sized scale for a limited number of largely unknown customers, on an uncontrollably wide market, i.e. under conditions of near complete fragmentation of social labour and anarchy of the economic process. But as a result of growing technological progress, tremendously increased concentration of capital, the conquest of wider and wider markets throughout the world, and the very nature of the labour organisation inside large and even medium-sized capitalist factories, a powerful process of objective socialisation of labour is simultaneously set in motion. This process constantly extends the sphere of economy in which not blind market laws but conscious decisions and even large-scale co-operation prevail.

This is true especially inside mammoth firms (inside multinational corporations, such 'planning' prevails far beyond the boundaries of nation-states, even the most powerful ones!) and inside large-scale factories; but it is also increasingly true for buyer/seller relations, in the first place on an inter-firm basis, between public authorities and firms, and more often than one thinks between traders and consumers too. In all these instances, the rule of the law of value becomes more and more remote, indirect and discontinuous. Planning prevails on a short and even medium-term basis.

Certainly, the economy still remains capitalist. The rule of the law of value imposes itself brutally through the outburst of economic crises. Wars and social crises are increasingly added to these economic crises to remind society that, under capitalism, this growing objective socialisation of labour and production is indissolubly linked to private appropriation, i.e. to the profit motive as motor of economic growth. That linkage makes the system more and more crisis-ridden; but at the same time the growing socialisation of labour and production creates the objective basis for a general socialisation of the economy, i.e. represents the basis of the coming socialist order created by capitalism itself, within the framework of its own system.

(j) **The inevitability of economic crises under capitalism.** This is another of Marx's projections which has been strikingly confirmed by history. Marx ascertained that periodic crises of overproduction were unavoidable under capitalism. In fact, since the crisis of 1825, the first one occurring on the world market for industrial goods, to use Marx's own formula, there have been twenty-one business cycles ending (or beginning, according to the method of analysis and measurement used) with twenty-one crises of overproduction. A twenty-second is appearing on the horizon as we are writing.

Capitalist economic crises are always crises of *overproduction of commodities* (*exchange values*), as opposed to pre- and post-capitalist economic crises, which are essentially crises of *underproduction of use-values*. Under capitalist crises, *expanded reproduction* - economic growth - is brutally interrupted, not because too few commodities have been produced but, on the contrary, because a mountain of produced commodities finds no buyers. This unleashes a spiral movement of collapse of firms, firing of workers, contraction of sales (or orders) for raw materials and machinery, new redundancies, new contraction of sales of consumer goods etc. Through this *contracted reproduction*, prices (gold prices) collapse, production and income is reduced, capital loses value. At the end of the declining spiral, output (and stocks) has been reduced more than purchasing power. Then production can pick up again; and as the crisis has both increased the rate of surplus-value (through a decline of wages and a more 'rational' labour organisation) and decreased the value of capital, the average rate of profit increases. This stimulates investment. Employment increases, value production and national income expand, and we enter a new cycle of economic revival, prosperity, overheating and the next crisis.

No amount of capitalists' (essentially large combines' and monopolies') 'self-regulation', no amount of government intervention, has been able to suppress this cyclical movement of capitalist production. Nor can they succeed in achieving that result. This cyclical movement is inextricably linked to production for profit and private property (competition), which imply periodic over-shooting (too little or too much investment and output), precisely because each firm's attempt at maximising profit unavoidably leads to a lower rate of profit for the system as a whole. It is likewise linked to the separation of value production and value realisation.

The only way to avoid crises of overproduction is to eliminate all basic sources of disequilibrium in the economy, including the disequilibrium between productive capacity and purchasing power of the 'final consumers'. This calls for elimination of generalised commodity production, of private property and of class exploitation, i.e. for the elimination of capitalism.

9. Marx's Theory of Crises

Marx did not write a systematic treatise on capitalist crises. His major comments on the subject are spread around his major economic writings, as well as his articles for the **New York Daily Tribune**. The longest treatment of the subject is in his **Theorien über den Mehrwert**, subpart on Ricardo. Starting from these profound but unsystematic remarks, many interpretations of the 'marxist theory of crises' have been offered by economists who consider themselves marxists. 'Monocausal' ones generally centre around 'disproportionality' (Bukharin, Hilferding, Otto Bauer) – anarchy of production as the key cause of crises – or 'underconsumption' – lack of purchasing power of the 'final consumers' as the cause of crises (Rosa Luxemburg, Sweezy). 'Non-monocausal' ones try to elaborate Marx's own *dictum* according to which *all* basic contradictions of the capitalist mode of production come into play in the process leading to a capitalist crises (Grossman, Mandel).

The question of determining whether according to Marx, a crisis of overproduction is first of all a crisis of overproduction of commodities or a crisis of overproduction of capital is really meaningless in the framework of Marx's economic analysis. The mass of commodities is but one specific form of capital, commodity capital. Under capitalism, which is generalised commodity production, no overproduction is possible which is not simultaneously overproduction of commodities and overproduction of capital (overaccumulation).

Likewise, the question to know whether the crisis 'centres' on the sphere of production or the sphere of circulation is largely meaningless. The crisis is a *disturbance* (interruption) of the process of enlarged *reproduction*; and according to Marx, the process of reproduction is precisely a (contradictory) *unity* of production and circulation. For capitalists, both individually (as separate firms) and as the sum total of firms it is irrelevant whether more surplus-value has actually been produced in the process of production, if that surplus-value cannot be totally realised in the process of circulation. Contrary to many economists, academic and marxist alike, Marx explicitly rejected any Say-like illusion that production more or less automatically finds is own market.

It is correct that in the last analysis, capitalist crises of overproduction result from a downslide of the average rate of profit. But this does not represent a variant of the 'monocausal' explanation of crises. It means that, under capitalism, the fluctuations of the average rate of profit are in a sense the seismograph of what happens in the system as a whole. So that formula just refers back to the sum-total of partially independent variables, whose interplay causes the fluctuations of the average rate of profit.

Capitalist growth is always disproportionate growth, i.e. growth with increasing disequilibrium, both between different departments of output (Marx basically distinguishes department I, producing means of production, and department II, producing means of consumption; other authors add a department III producing non-reproductive goods – luxury goods and arms – to that list), between different branches and between production and final consumption. In fact, 'equilibrium' under capitalism is but a conceptual hypothesis practically never attained in real life, except as a border case. The above mentioned tendency of 'overshooting' is only an illustration of that more general phenomenon. So 'average' capital accumulation leads to an over-accumulation which leads to the crisis and to a prolonged phenomenon of 'underinvestment' during the depression. Output is then consistently inferior to current demand, which spurs on capital accumulation, all the more so as each successive phase of economic revival starts with new machinery of a higher technological level (leading to a higher average productivity of labour), and to a bigger and bigger mountain of produced commodities. Indeed, the very duration of the business cycle (in average 7.5 years for the last 160 years) seemed for Marx determined by the 'moral' life-time of fixed capital, i.e. the duration of the reproduction cycle (in value terms, not in possible physical survival) of machinery.

The ups and downs of the rate of profit during the business cycle do not reflect only the gyrations of the output/disposable income relation; or of the 'organic composition of capital'. They also express the varying correlation of forces between the major contending classes of bourgeois society, in the first place the short-term fluctuations of the rate of surplus-value reflecting major victories or defeats of the working class in trying to uplift or defend its standard of living and its working conditions. Technological progress and labour organisation 'rationalisations' are capital's weapons for neutralizing the effects of these fluctuations on the average rate of profit and on the rate of capital accumulation.

In general, Marx rejected any idea that the working class (or the unions) 'cause' the crisis by 'excessive wage demands'. He would recognise that under conditions of overheating and 'full employment', real wages generally increase, but the rate of surplus-value can simultaneously increase too. It can, however, not increase in the same proportion as the organic composition of capital. Hence the decline of the average rate of profit. Hence the crisis.

But if real wages do not increase in times of boom, and as they unavoidably decrease in times of depression, the average level of wages during the cycle in its totality would be such as to cause even larger overproduction of wage goods, which would induce an even stronger collapse of investment at the height of the cycle, and in no way help to avoid the crisis.

Marx energetically rejected any idea that capitalist production, while it *appears* as 'production for production's sake', can really emancipate itself from dependence on 'final consumption' (as alleged e.g. by Tugan-Baranowski). While capitalist technology implies indeed a more and more 'roundabout-way-of-production', and a relative shift of resources from department II to department I (that is what the 'growing organic composition of capital' really means, after all), it can never develop the productive capacity of department I without developing in the medium and long-term the productive capacity of department II too, admittedly at a slower pace and in a lesser proportion. So any medium or long-term contraction of final consumption, or final consumers' purchasing power, increases instead of eliminates the causes of the crisis.

Marx visualised the business cycle as intimately intertwined with a *credit cycle*, which can acquire a *relative* autonomy in relation to what occurs in production properly speaking. An (over) expansion of credit can enable the capitalist system to sell temporarily more goods that the sum of real incomes created in current production plus past savings could buy. Likewise, credit (over) expansion can enable them to invest temporarily more capital than really accumulated surplus-value (plus depreciation allowances and recovered value of raw materials) would have enabled them to invest (the first part of the formula refers to net investments; the second to gross investment).

But all this is only true temporarily. In the longer run, debts must be paid; and they are not automatically paid through the results of expanded output and income made possible by credit expansion. Hence the risk of a *Krach*, of a credit or banking crisis, adding fuel to the mass of explosives which cause the crisis of overproduction.

Does Marx's theory of crisis imply a theory of an inevitable final collapse of capitalism through purely economic mechanisms? A controversy has raged around this issue, called the 'collapse' or 'breakdown' controversy. Marx's own remarks on the matter are supposed to be enigmatic. They are essentially contained in the famous chapter 32 of volume I of **Capital** entitled 'The historical tendency of capitalist accumulation', a section culminating in the battle cry: 'The expropriators are expropriated'. But the relevant paragraphs of that chapter describe in a clearly non-enigmatic way, an interplay of 'objective' and 'subjective' transformations to bring about a downfall of capitalism, and not a purely economic process. They list among the causes of the overthrow of capitalism not only economic crisis and growing centralisation of capital, but also the growth of exploitation of the workers and their indignation and revolt n the face of that exploitation, as well as the growing level of skill, organisation and unity of the working class. Beyond these general remarks, Marx, however, does not go.

10. Marx and Engels on the Economy of Post-Capitalist Societies

Marx was disinclined to comment at length about how a socialist or communist economy would operate. He thought such comments to be essentially speculative. Nevertheless, in his major works, especially the **Grundrisse** and **Das Kapital**, there are some sparse comments on the subject. Marx returns to them at greater length in two works he was to write in the final part of his life, his comments on the **Gotha Programme** of united German social-democracy, and the chapters on economics and socialism he wrote or collaborated with for Engels' **Anti-Dühring** (1878). Generally his comments, limited and sketchy as they are, can be summarised in the following points.

Socialism is an economic system based upon conscious planning of production by associated producers (nowhere does Marx say: by the state), made possible by the abolition of private property of the means of production. As soon as that private property is completely abolished, goods produced cease to be commodities. Value and exchange value disappear. Production becomes production for use, for the satisfaction of needs, determined by conscious choice (*ex ante* decisions) of the mass of the associated producers themselves. But overall economic organisation in a postcapitalist society will pass through two stages.

In the first stage, generally called 'socialism', there will be relative scarcity of a number of consumer goods (and services), making it necessary to measure exactly distribution based on the actual labour inputs of each individual (Marx nowhere refers to different quantities and *qualities* of labour; Engels explicitly *rejects* the idea that an architect, because he has more skill, should consume more than a manual labourer). Likewise, there will still be the need to use incentives for getting people to work in general. This will be based upon strict equality of access for all trades and professions to consumption. But as human needs are unequal, that formal equality masks the survival of real inequality. In a second phase, generally called 'communism', there will be plenty, i.e. output will reach a saturation point of needs covered by material goods. Under these circumstances, any form of precise measurement of consumption (distribution) will wither away. The principle of full needs satisfaction covering all *different needs* of *different* individuals will prevail. No incentive will be needed any more to induce people to work. 'Labour' will have transformed itself into meaningful many-fold activity, making possible all-round development of each individual's human personality. The division of labour between manual and intellectual labour, the separation of town and countryside, will wither away. Humankind will be organised into a free federation of producers' and consumers' communes.