

IT IS HUNDRED YEARS since Karl Marx's DAS KAPITAL saw the light of day, and for a hundred years the book has been illumining the path forward for the working class and all oppressed and toiling people. The popularity of his work among the workers in his life time was for Marx the best payment for all his toil and privations in producing it.

Throughout this long period

there has been no other work more controversial and debated, more hated and loved, more attacked and upheld than DAS KAPITAL. While undoubtedly consolidating the working-class movement, DAS KAPITAL also brought about a split in the intelligentsia—into those who supported and drew inspiration from it, and those who opposed and tried to refute it; into those who looked forward and those who hugged the dying past.

In the course of a century the latter have become fewer and the former many. Today it can be safely said that the ideas of Marx—Marxism—have percolated into all fields of human endeavour and thought.

We are proud to bring out this commemoration volume—a tribute to Karl Marx by some of the foremost intellectuals of our country. Not all are Marxists, but every one of them believes that the ideas of Marx have contributed to the advance of human thought in general and their speciality in

particular.

DAS KAPITAL CENTENARY VOLUME

A SYMPOSIUM

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A Symposium

Edited by

MOHIT SEN M. B. RAO



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INTRODUCTION

THE PROPOSAL TO BRING OUT a volume of essays to honour the centenary of the publication of Das Kapital (Volume I) was made in April 1967. It was hoped that it would be possible to gather essays from a representative section of progressive intellectuals who have been influenced by this immortal work. After some discussion it was felt that it would be better to confine the selection to intellectuals within the country so that, in a sense, it would be very much an Indian effort—an effort that would undoubtedly be a part of a host of similar work being undertaken in other countries. And this is how it has turned out to be—the appendix is the exception, and that, too, was translated and made available by the veteran Marxist scholar and revolutionary, Dr. G. Adhikari.

The response to the idea was heartening. Almost all who were approached readily agreed to contribute. Only two were unable to do so because of pressing preoccupations. Another noteworthy point was that of those who agreed to contribute only four were unable to let us have their essays by the time we had to go to the press. Perhaps our luck was a historical accident. More likely it was not luck or accident but the discipline which this particular tribute evoked. The contributors have placed us heavily in their debt, especially as they wrote without the least expectation of any royalty. It need hardly be said that the quality of writing was such that our work as editors was incredibly light.

It is our hope that we shall be able to plan and publish companion volumes on other suitable occasions and in this manner make our contribution to building a corpus of Marxist writing in India. The entire contemporary development of our country, not least its ideological situation, makes this a stern necessity and an inescapable duty.

We have included the facsimile of the title page of the first German edition of Das Kapital and that of Bishnu Dey's poem in Bengali in the poet's own handwriting.

June 1968

MOHIT SEN M. B. RAO

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Das Kapital.

Kritik der politischen Oekonomie.

Von

Karl Marx.

Erster Band.

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काप्प स्थापं ' अतो अयो अया वेता के। - क्रीसार्कार्ड व ता अप्प अपेष ' वेस काष्ट्र कृष्ट्यां ताम क्रमें सिं ' वह क्षेत्रसिंत्रतः

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29/1/19

One Hundred Years

BISHNU DEY

Follow me and let the people talk; stand thou as a firm tower which never shakes its summit for blast of winds... Purgatorio: V

One hundred years have passed.

Yet so many roads, shattered roads, twisted, Barbed, temptingly straight roads, deceitful roads!

Perhaps one hears through the labyrinth of crossroads The laughter of unseen children, Perhaps through the howl of hate beyond the jungle, Across the dry plains of our days sings out The pipe of some cowherd-boy of some far country.

Yet the destination fades out day and night on our perpetually frantic streets
In having to elect each step,
In every land of the distracted world,
Across desert wiles or muddy waters,
And Vietnam burns under napalms,
And, East and West, to-day over this country,
to-morrow over that
Vultures fly.

What a strange bitter joke!

Yet the earth's geography widespread with milestones

And farflung history found an explorer mapping the universe of man

A century ago! unique in genius with prodigious knowledge, With the wisdom of the most hardworking thought, in love with day to day life

In Das Kapital!

And in that tremendous epic the last chord rings in Kailasan rhythms,

Like a trumpet blowing in unison with Dhurjati's duetdance, Of what is possible in our Time and of this ever wondering quest, And the triple vision reveals the Enemy and the Friend,

With the unending call of Thinking with our human joys and sorrows,

Of the daily faring forth to the difficult yet certain destination.

Marx and Population

GYAN CHAND

THE GHOST OF MALTHUS, which was taken to have been laid to rest about five decades ago, has again been brought to life and an ever-recurrent theme of economic and political writers now is the grim prospect of the acceleration of growth of population of the world, particularly of its 'underdeveloped' part, i.e., three-fourths of mankind. The population in these areas is said to be increasing at an unprecedented rate in what is called unique phase of world history and making it imperative to take preventive action first to slow down and later to stop this 'alarming' growth of population.

This view is strongly supported by contemporary facts of population history. World population and particularly population of Asia, Africa and Latin America—the continents in which the world's poor are living—is increasing much faster than ever before and very much faster than the population of affluent countries—Europe, North America and Oceania. This is taken to be a serious danger to the future of mankind because it widens the gulf between the rich and the poor countries, the gulf which is already very wide owing to the operation of historical factors and is becoming otherwise wider owing to great differences between the rates of their economic growth again owing to the inheritance of the past.

The fact that the rates of population growth in the poor and

the rich countries present such a striking and significant contrast is taken to retard the growth of the former and make it exceedingly difficult to narrow the gap between the stage of their development and that of the countries which have been and are very much in advance. This fact becomes, according to the prevalent view, a serious danger to the future of the world because it is creating truly formidable stresses in the political relations of the rich and the poor countries and making their peaceful coexistence almost an unattainable object.

As most of the rich countries are also either colonial or ex-colonial countries, who still occupy a dominant position in world economy, and as most of the poor countries, in which population is increasing at such an accelerated rate, are also newly-independent countries, which have to realise political equality with the rich countries and counter their dominance in world affairs, this wide disparity in the rate of population growth acquires a decisive and disturbing significance in the balance of world forces and its continuance becomes a matter of serious concern from the standpoint of international harmony.

I

THE POPULATION SITUATION has, in the last hundred years since volume one of Das Kapital was published, been radically altered and these changes have to be given their due weight in the evaluation of this situation and its meaning. It is, however, necessary to cite the more salient facts relating to the growth of population in order to assess the relevance or otherwise of Marxian views on population to the contemporary demographic situation. In Table I given below total estimated world population, population of areas inhabitated by Europeans and persons of European origin, of Asia, Africa and Latin America from 1900 to 1960 and rate of growth per decade are given. Allowance has to be made for the limitations of population statistics, but these facts, as they are, do indicate broadly the facts of 'demographic explosion'.

Table I world population by continents (in millions)

	World	Area of Europ Settlement		Africa	Latin America
Settlement				America	
1900	1608	573	915	120	63
1930	2015 (7.8)a	786 (11.1)a	1072 (5.4)a	157 (9.S)a	109 (20.9)a
1950	2519	918	1384	207	162
1960	3010 (14.3)b	1069 (10.8)b	1684 (16.2)b	257 (17.9)b	212 (24.2)b
	(20.0)c	(16.4)c	(21.7) <i>c</i>	(24.2)c	(30.9) <i>c</i>

Rate of growth per decade, percentage in brackets (a) 1900-30, (b) 1931-60, (c) 1951-60.

(adapted from Simon Kuznets, Modern Economic Growth, Table 2.2, p. 38)

These figures and similar other figures need a more detailed and careful analysis than can, owing to limitations of space, be attempted here. Rate of world population increased per decade 7.8 per cent (1900-30) to 14.3 per cent (1931-60), 20 per cent (1951-60), the corresponding rate of increase for European population-11.1, 10.8 and 16.4, for Asia 5.4, 16.2, 21.7, for Africa 9.8, 17.9 and 24.2 and for Latin America 20.9, 24.2 and 30.0. Even the rate of growth of persons of European origin has increased, but that of Asia, Africa and Latin America has increased much more. World population increased by 407 million in the first three decades of the twentieth century (1900-30), by 504 million in the next two decades (1931-50) and by 491 million in the last decade (1951-60). The inference is clear. Since 1950 there has been a truly phenomenal increase of world population and the rate of growth of population is much more phenomenal in the case of Asia, Africa and Latin America. If the position is considered in individual countries, the acceleration of population growth is even more striking in the case of backward countries like Puerto Rico and Formosa.

Any study of population situation in the world and individual countries has to focus upon the emergence of this exceedingly significant development in the last decade or two. An alarmist view of the situation will, as stated below, only produce confusion. At this rate the population of the world would,

however, easily double itself by the end of the century and the rate of increase will be even faster in a number of countries. World population is now growing at the rate of 50 million a year—probably more—and the annual rate of increase in 1930-60 was about 33 million. The aggregate increase, even more than the annual rate of growth of population, can bring home to our minds the full implication of the great spurt in population growth in the last decade or so.

The growth of population in India since 1900 shows the same trend of greatly accelerated growth. This trend has been greatly accentuated since 1921 and much more so in last two decades. The percentage increase per decade since 1901 has been 0.7 (1901-10), 5.7 (1911-20), 0.4 (1921-30), 11 (1931-40), 13.5 (1941-50), 14.1 (1951-60) and 21.5 (1961-67) and the increase in total population per decade during the same period has gone up by 3.5, 0.9, 27.2, 37.5, 44.1 and 78.11 million. The estimated total increase of population between 1961 to 1965 has in million been 10.0 (1961), 10.7 (1962), 10.9 (1963), 11.2 (1964) and 11.5 (1965) and the annual total increase has risen in million from 2.7 (1921-30), 3.8 (1931-40), 4.4 (1941-50), 7.9 (1951-60) and 10.5 (1961-65). The annual percentage rate of increase of population in India has since 1921 risen from 1.04 (1921-30), 1.27 (1931-41), 1.32 (1941-50) and 2.15 (1951-60) and probably the current rate since 1961 is 2.6 per cent. These are dry figures but convey the fact of really tremendous increase of population pressure on our limited resources.

India is more than keeping pace with the world as a whole and particularly the 'undeveloped' section of it in the rate at which her population is growing and accounts for probably one-fourth of the total annual increase in world population. Only a few years ago projections for 1981 of various competent specialists in population studies, on moderate assumptions, varied from 476 million to 588 million. These projections have already been outstripped by the actual increase of population, as in 1967 our present total population can reasonably be estimated to be 510 million, and increase of another 160 million can be

forecast on a fairly objective basis by 1981, i.e., nearly 670 million or an increase of 30 per cent in two decades (1961-80).

П

THE MOST SIGNIFICANT fact about this population situation, which has emerged with almost dramatic rapidity, is that it is due largely, almost entirely, to the very remarkable decline in the death-rate owing to the forceful impact of the great, almost revolutionary advance of applied curative and, even much more, preventive medicine in the world and its diffusion everywhere—particularly the areas and countries which otherwise are lagging behind in the race of modern economic and social growth and also the development of public health services all over the world in varying degrees.

During this period, i.e., since 1921, the birth-rates have also, largely speaking, fallen in the western countries, in the socialist countries and in Japan, but the birth-rate of the world as a whole, particularly the countries with retarded economic growth, i.e., the 'undeveloped' countries, have not significantly altered and are, generally speaking, close to 40 per thousand. The birth-rate of the world as a whole in 1960 has been estimated as 37 per thousand, 18 for Europe, 20 for North America, 44 for Asia, 47 for Africa and 40 for Latin America¹ and since then it is known that the relative position in the respect of the birth-rates of the different continents has not materially altered and the countries with high population pressure are also the countries of high birth-rates.

The estimated birth-rate per thousand in India has fallen from 48.1 per thousand in 1901-10 to 39.50 in 1941-50 and 40 in 1951-60 and in the last five years, in spite of the programme of family planning, there has been practically no

^{1.} The Future Growth of World Population, United Nations, Table 10, p. 32.

change in the birth-rate. According to the forecast of the UN publication referred to above, by 1975 the relative position in Europe, North America, Asia, Africa and Latin America would practically remain unchanged in this respect. The forecast is, factually speaking, warranted by the population trends in operation at present, and it is not likely that the position in India would show any very significant change though a fall of birth-rate from 40 to 35 per thousand cannot be ruled out on certain optimistic assumptions by 1975 and even possibly earlier.

Decline in the death-rate in 1951-55 had, however, been very considerable. It (death-rate) was 25 for the world, nine for Europe, nine for North America, 33 for Asia, 33 for Africa, 19 for Latin America, 12.9 for Ceylon, 10 for Japan, 9.7 for the USA and seven for the USSR. The estimated death-rate for India has fallen from 42.6 per thousand in 1901-11 to 27.4 in 1941-50 and 22 in 1951-60. The death-rates in the 'undeveloped' countries in spite of the considerable fall that has occurred are still by world standards very high; but it is almost certain that what has happened in countries like Ceylon, Formosa, Guyana and Puerto Rico, in which the death-rates are almost comparable with the death-rates of advanced countries, can and most likely will happen in the other relatively backward countries.

In the past the decline in the death-rate largely depended upon the level of development of the countries concerned and the countries of low death-rates were countries of high and rapid development; but the position in this respect has been radically altered in the last two or three decades. 'Clearly the striking advances in public health and medicine', in the words of Simon Kuznets, 'during the last two or three decades have permitted far more rapid reduction in death-rates unrelated to the much slower process of economic growth than ever before possible.'2 Striking advance in public health and medicine have placed instruments of rapid reduction of mortality within the means of the countries with limited and even very limited resources.

^{2.} Op. cit., p. 47.

As only the so-called demographers, belonging to the lunatic fringe of population specialists like Vogt and Robert C. Crook, can suggest that the benefits of modern medicines be denied to the 'undeveloped' countries since they feel there is the serious risk of 'the men of lesser breed multiplying too fast', it is in the nature of things impossible to act upon this suggestion and the world conscience would rule out any madness of this kind.

The dilemma which this fact raises has to be faced. Even if it is granted that in the countries of very rapid rate of population growth in which in the words of Prof. A. V. Hill, 'men breed like rabbits',3 they cannot be permitted to die like rabbits; and what is far more important, they will not die like rabbits owing to the forces which they themselves will generate and put into operation. In this dilemma is implicit a revolutionary potential of the world population situation which, as stated later, cannot be stopped by any demographic jeremiads. According to the UN forecast cited above, in 1975 the rate of natural increase, i.e., birth-rate minus death-rate is likely to be 20 per thousand for the world, 23 for Asia, 17 for Africa, 28 for Latin America, eight for Europe, 12 for North America and 15 for the USSR. The assumption, on which this forecast is based, may or may not come true in its entirety, but it does indicate the prospective imbalances which are implicit in the population trends now in operation.

According to Prof. A. V. Hill their 'foresceable consequence is evil.' This is, however, a gloomy view of the situation based upon the assumption of 'conventional wisdom', i.e., assumption of the existing social system in the larger part of the world and its values remaining an enduring phenomenon for all time. This is, however, a false assumption and prevents the understanding of the essentials of the population situation. The dilemma, referred to above, however remains and has to be faced and resolved from a radically different point of view than that of an ex-president of the British Association. This is as much true

^{3.} Presidential Address to the British Association, 1952.

of India as of the world and its full implication has to be clearly understood.

III

The birth-death rates and the rate of natural increase are social facts. The consequences of the interplay of the forces in operation, changes in these rates and the population pressures in the different countries and the world and their so-called explosive possibilities arise, because through them the reproductive capacity of men is exercised in the context of certain social relations and within a certain social framework including its political counterpart. Population growth and the resources available for its maintenance and the ratio between them are both parts of a social fabric and subject to the impact of regulated and unregulated operation of factors, which taken together comprise the entire social structure and its substance.

The Malthusian view that the growth of population inevitably tends to outstrip the means of subsistence was based upon empirical assessment of a specific social situation, and its inarticulate premises exercised great influence over the minds of men and their behaviour and became a part of the folklore on the subject of population. Purposive regulation and limitation of the size of family through widespread use of contraceptives in western countries, which incidentally developed out of the controversy which the Malthusian approach gave rise to, was not integrated with it and assumed the form which it did in an atmosphere of social revolt, nonconformist behaviour and repression-rooted conventional code of nonrational and even antirational conduct. Malthus propounded his views as criticism of what he called perfectionist views of his times and they became a part of social orthodoxy and even reaction.

The need for population control was posited owing to the risk of overpopulation being taken as inherent in the Malthusian assessment of twin trends of the growth of population and the means of subsistence and their unavoidable fundamental

disequilibrium. The risk of overpopulation became, on that account, a stock argument against all proposals and movements for basic social changes and there was a clear antagonism between the advocates of population control and even family limitation through contraception and social critics, heretics and revolutionaries.

This antagonism was really an incidental result of the line of thinking which came to be associated with population controversies. This antagonism in a somewhat modified form still persists and creates initial prejudices among the participants in the discussions on population and the related problems. It is somewhat abating now; and as the practice of family limitation through contraception is widely adopted across and in spite of the division of the world into nonsocialist and socialist systems, it is being subconsciously realised that accretion of biases, which have grown round the social thought on population, is merely contingent and needs not vitiate objective thinking on the subject.

Adversaries of socialism still carry the overpopulation argument in their quiver for fight against socialism and use it without understanding or discrimination. Among the socialists, even nonradical and democratic socialists, there is apathy towards population issues and in the communist countries, in spite of the relaxation of restriction on contraception, the thinking is still clouded by the hang-over of the old controversies and the issues of population are not yet approached or discussed fully, frankly and objectively. This antagonism, as stated above, is abating a little and purposive regulation of the size of family through contraception and ardour for social revolution have ceased to be antagonistic contradictions. The inherent conflict in thought has been considerably weakened by general trends in operation under socialist and nonsocialist systems.

As stated above, the new trends have not yet been integrated with social thought of the times under both systems. But the tremendous present and prospective increase of population in all countries and the world as a whole has not only made the use

of contraceptives more common and acceptable, but also created a disposition to deal with the population problem not as an independent issue but as an issue closely intertwined with the whole complex of social issues which have to be faced and solved on an integrated basis. The great acceleration of the rate of population growth referred to above makes it essential to widen the horizons of thinking on population and take our minds out of the old grooves created by the contingencies of old controversies on population. The demographic explosion can and should be used to explode old myths on population and clear the air for daring and new thinking on the subject.

Population simply cannot keep on increasing indefinitely at the rate at which it can double itself between 20 to 30 years. Its growth has to be checked. Contraception is an important element in the answer to this tremendous challenge, but it has to be a part of a more adequate and comprehensive answer, i.e., an integral part of the whole complex of social issues referred to above.

This is a convenient point for examining briefly the main points on Marx's views on population. Among them preeminence has to be given to the point that according to Marx there was not and could not be 'the law of population which is the same for all times and all places.' This means that Malthus's assumption that there is a natural law of population based upon the premise that population grows faster than the means of subsistence is a false assumption. In Marx's words, 'every historic mode of production has its own special historic laws of population, historically valid within its own limits alone. An abstract law of population exists for plants and animals only and only in so far man has not interfered with them.'

This point is basic and has to be given its due weight. It is true that biological factors influence and even determine within limits the fecundity of human beings, i.e., the number of children they can have and also their physical and mental endowment. To this extent—and to this extent only—a natural

law of population may be posited; but this, however, does not mean that biological factors determine absolutely the size of family, the size of population and the rate at which it grows. Even plants and animals are subject to the influence of the ecological factors apart from those which are man-made; but the view that population is subject to 'abstract law of population', natural and eternal, is so clearly untenable that it is not necessary to labour this point. It follows that population and its growth are determined and cannot but be determined by the entire social matrix—by forces which are historically valid and are true only of specific times and social systems.

The Marxian view, of course, is that historic mode of production is an all-important determinant of population as of all other social phenomena. This view, interpreted with due understanding, can illumine the understanding of the working of demographic factors and theory of population can be built upon this understanding without any absolute monistic assumptions. The fact of the matter is that adequate theories of population, either on socialist or nonsocialist assumptions, have so far not been formulated. This is due to the antagonism referred to above which has vitiated objective thinking on population studies in most countries. Nevertheless, the view that population is historically determined and there is no abstract law of population does not become invalid on that account.

Now it would not be denied even by men of conservative outlook that social and political framework and its operative principles have a profound effect on the quantity and quality of population, and all discussions on population, if they are to be fruitful, must take into account specific social and political conditions to which they are related. Biological factors are, of course, of great consequence and their relevance to population studies has to be conceded and taken into account in understanding and evaluating population situations and problems.

Social biology, however, now has an acknowledged place of its own in scientific studies and is known to be of growing importance. Population is really a more social than biological phenomenon and the latter is conditioned by the former. Eugenics, based as it is upon the recognition of heredity as an important social factor, correlates social policies—particularly population policies—with authentic knowledge of biology for improvement of the quality of population and provides for removal, as far as possible, of the genetic defects. This process can, however, be brought into operation only within the desired social framework and its related social values.

It is not possible to exclude qualitative results of the existing social system while formulating eugenic policies, e.g., degeneration caused by in-marrying in classes, castes and exclusive communities. False social conceit, which plays such an important part in marriages, is the direct result of spurious social values of the existing social system which are largely due to the inequitable distribution of income and property and its corresponding power pattern. This is an illustration of how growth and quality of population are historically conditioned and any assumption that its problems can be studied and understood in an abstract manner is untrue and invalid. This is or should be almost axiomatic: but the fact that its bearing and importance are not generally understood and appreciated is due to the social context of population having not been duly taken into account in the enunciation and discussion of population principles and policies. Marx in emphasising the decisive importance of historicity and relativity in population studies has provided a corrective which even now needs to be more fully utilised and developed.

The second point which according to the Marxian view has special significance for population studies is the distinction which it makes between 'means of subsistence' and 'means of employment' and attributes the misery of the poor to the pressure of population on the means of employment and not on the means of subsistence. This point has not been dealt with at any length in Marxian literature, but its importance lies in the fact that coexistence of abundance with mass unemployment and misery, which has been and is characteristic of so many highly-

developed capitalist countries clearly points to the conclusion that scarcity of means of subsistence is not the prime cause of want and poverty but inability of the economic system to find 'means of employment', i.e., remunerative work for the entire labour force of the country. This does not imply that absolute scarcity of the means of subsistence does not or cannot exist. But it does imply that largely speaking, if the existing knowledge, technique and equipment could be put to the best possible use, scarcity of 'means of subsistence' would be overcome and the pressure on it very largely relieved.

The implication, of course, is that social iniquities and oppressive social relations present such a formidable difficulty in the way of utilising to the full production potential of the world and the individual countries that scarcity of the means of subsistence persists and the vast majority of mankind still lives in a state of dire want. This is not an argument against taking restrictive population measure when warranted by the needs of the situation, but against relying upon them exclusively and even mainly for abolishing want and poverty. Development of production potential takes time and the possibility of insufficiency of means even in a fully-developed system has to be admitted. But the distinction between means of subsistence and means of employment is significant. Restrictive population measures may be and are necessary in order that production may catch up with population, but in the existing circumstances greater emphasis has to be laid on the great obstacles to development owing to social exploitation and impoverishment caused by it.

The Marxian view was intended to bring to the fore the fact that suffering of the masses everywhere was caused by primarily repressive effect of the unjust social system than by the excessive pressure of population. This was the implication of the pressure of population on the means of employment and not on the means of subsistence as posited by the advocates of the Marxian point of view. This contradiction between these points of view has, as pointed out above, caused the fundamental

divergence between socialists and the supporters of the competitive or private enterprise system in their attitude to population and made even purposive planning of population a highly controversial issue which is not necessarily implicit in this divergence. This contradiction is fundamental and cannot be glossed over. And yet population planning is more essential for a planned socialist system than a nonsocialist system. Really population planning is possible only in a planned socialist system and has to be made its integral part.

If this view is accepted, population planning not only makes contraception its very cardinal feature but it also implies that it has to mean much more than the adaption of contraception as a measure of family limitation. This means, of course, that emphasis on social exploitation as the major cause of the poverty of the masses makes it essential to take a more objective and balanced view of the accelerated rate of the growth of population than otherwise and understand the logic of the dilemma which it presents in the existing situation with greater understanding and insight. This dilemma did not exist when volume one of Das Kapital was published and its emergence a hundred years later should only help us to understand better the fact that laws of population are historically conditioned and can be understood only in relation to the entire social structure. That will not resolve the contradiction inherent in the facts of the case, but it may, probably will, cut certain mental knots and promote creative thinking on population.

IV

MARX LAID VERY SPECIAL stress on the relative surplus population—industrial reserve army—created by growing increase in constant capital and the reduction in the demand for labour which, according to him, is provided only by variable capital—funds devoted to the payment of wages. Change in the organic composition of capital—the growing relative importance of constant capital (dead labour)—reduces the funds available for

living labour. Labour not only makes the accumulation of capital possible from the unpaid labour, surplus value or profits, which the capitalist appropriates owing to private ownership of the means of production but also, in the words of Marx, 'kills the demand for labour.' This, according to him, is the law of population 'historically conditioned' by the 'capitalistic mode of production'. This, on the one hand, produces the falling rate of profits which leads to greater and still greater concentration of capital—growth of giant monopolies—and investment of capital in the undeveloped countries with lower rates of wages and higher rates of profits. This further weakens the position of labour in the capital-export countries and leads to emergence of imperialism and all that it signifies in terms of dominance and the economic and political subjugation of the weaker countries.

The theory that imperialism as the last stage of capitalism has grown out of the capitalist mode of production, of which law of population of the historical period is the predetermined outcome, was, as is well known, formulated by Lenin and has had a powerful impact on the minds of revolutionaries and the course of social revolution in the world. The issues implicit in this law of population rooted in and arising out of capitalist mode of production are very complicated and it is not possible to examine them even very briefly. They are also very controversial issues, but the core of the argument that 'relative surplus population', i.e., chronic mass unemployment and its grave consequences, is built into the very structure of capitalism, though modified by over-full employment and social insurance in some of the advanced capitalist countries, has not been conclusively refuted by the recent development.

Just now the USA, UK, Germany, France and even Japan are, after a period of 'miraculous' prosperity in some cases, passing through a recessionary phase and revive grave doubts about the advanced capitalist countries having resolved the contradictions inherent in capitalism from the Marxian standpoint. The wide prevalence of the small family system in these countries

has undoubtedly eased the position and reduced the pressure even on 'the means of employment'.

It is, however, necessary to review the position from the standpoint of 'the capitalist mode of production', and all the changes it has gone through in the last 100 years. Capitalism of 1967 is not the capitalism of 1867 and yet the principles which govern the size, composition and course of population are 'historically conditioned' by the present phase of capitalism and they can be fully understood if they are taken to be integral part of capitalist structure. This also holds good in the case of the less advanced or even undeveloped countries in which capitalism has grown and is operating in a very different context and yet shows some of the cardinal features of capitalism in the generic sense of the word. The most significant point is that demographic situation in all these countries is 'historically conditioned', and has to be made the pivot round which our thinking on the subject has to revolve.

The ratio between constant and variable capital—between dead and living labour—has probably not ceased to be relevant in spite of all the changes in capitalism in the last century. When the paradox of automation and operations of neocolonialism all over the world are still creating unresolved profound contradictions and the latter (neocolonialism) is producing stresses which express themselves in the most poignant form in countries like Vietnam, Indonesia, Congo, Brazil and Greece and greatly increase the dangers of nuclear annihilation, it is not possible even to suggest with any degree of assurance that the phase of capitalism in its most aggressive form in individual countries and the world as a whole has passed away. The socalled 'modern economic growth' which, of course, profoundly affects population in all its phases, is closely and inextricably interwoven with the whole structure of capitalism in 'black and white' in its pernicious and beneficial phases.

V

THIS ALSO, OF COURSE, applies to the socialist one-third of the world which, too, is passing through a very puzzling phase of its history. The final or even a definite shape of things has still to emerge. But this world is a very different world from the capitalist world and its principles of population, as all principles of economic and political system are 'historically conditioned'. The hangover of the old population controversies still affects the theory and practice of population in these countries.

The fact that the birth-rate, the death-rate and the rate of natural increase in the USA and USSR are now about the same does not mean at all that the same laws of population are operating in these countries. The substance of these laws is as different from each other as the substance of their social being and conditions and the thinking and behaviour of their people in relation to population as in all other spheres. People marry, rear families, realise marital joys or suffer from stresses, limit the number of their children or give the complexes, which they acquire through the general experience of their married life, or the advantages, which they and their children enjoy owing to their being recipients of highly-developed social services, and all other special features of their entire social life give population and its laws a special meaning of their own.

Marx and Engels did not and could not formulate the laws of population of socialist mode of production, but fundamental differences which revolution has brought about in these countries are very relevant for formulating their laws of population and shaping the thought, conduct and pattern of daily life relating to population. When an objective study of the new population situation is undertaken in these countries, free from absolute prepossession, laws of population of these countries also will acquire a new meaning and probably point to a new direction. When Marxism ceases to be a creed to live by and becomes a truly creative factor in their thought and action, the meaning of their 'historically conditioned' law of population

will reveal itself and socially purposive regulation of population will begin.

Population planning according to the view stated above, can become effective and meaningful only if it is made a part of the development of a planned socialist economy. Planning and socialism are in a state of flux in these countries, but that indicates that new mental processes are at work there and points to the possibility of a completely new orientation of their minds on matters relating to population as in all other matters. It may be that these countries are on the brink of great social innovations. If this is not an idle speculation, the possibility of their formulating new laws of population and using them to develop new guidelines has to be conceded. The people of these countries have already deconditioned their minds in relation to contraception and in this regard their thinking has become as free and uninhibited as in any other country. This is a very good sign and perhaps indicates that in matters relating to population 'the thaw' has gone farther than in the other social spheres.

Marx and Engels were primarily studying the 'laws of motion' of capitalism and pointed out that the latter has to be changed from its very foundations. The 'laws of motion' of capitalism in the changed context of today have still to be subject of earnest inquiry and purposeful action. But it is also necessary to study the 'laws of motion' of socialism in spite of the fact that the socialist countries are at present passing through a stage of self-critical stocktaking and reorientation from within. This is causing what looks like a disturbing social ferment and clash of views on fundamentals; but taken as a whole it is a process of clarification and readjustment, and good can, perhaps will, come out of it.

Reorientation towards population planning would, it may be assumed, be a part of this process and not only contraception would, on that account, become an essential part of new social mores and well-directed and intensive research in its problems would be instituted with as much earnestness as in space and electronic research. But population planning in its broadest

and deepest sense would become a pursuit of earnest thought and endeavour and give a new dimension to planning as a whole. The simple and almost self-evident fact that without population planning in all its aspects there can be no adequate planning of society as a whole would probably as a result of social ferment acquire the compulsion of a real social imperative.

Marx pointed out with such clarity and force that Malthus and the Malthusians were merely apologists of a foredoomed system but this was not merely a negative protest. In this view were implicit the seeds of a positive and very creative approach not only to the problems of numbers but also of the development of a system in which population would be a cardinal element in an entirely new and higher social context and men would be fruitful and multiply by social choice in a society of the free and the equals. This will mean that Malthus's gloomy views that it is inevitable that a large number of men should be born doomed to early and premature death because, 'nature, the great mistress of the feast', in Malthus's words, knowing that she could not provide for unlimited numbers humanely refused to admit fresh comers when her table was already full', were derived from a completely biased prepossession —really an obsession—that the poor were themselves the cause of their poverty.

Even in a rational and planned society unlimited numbers cannot be provided for, nevertheless, the table will never be too full to admit fresh comers because it will be laid only for the invited guests and the invitation would be extended after making sure that food and all other provisions are fully available for them on a preplanned basis. Population planning is not merely a question of making provision for food for all who are born but also creating and developing conditions under which they can live full and rich lives and not only hunger but also want—which implies living without dignity, leisure, culture and cheer—have no place in it and provision also of 'means of employment'—work with living wage—would be an essential part thereof.

As this can be done only in a planned socialist society, the new dimension of population planning referred to above would become a reality. This being merely an anticipation, even though based upon knowledge of new trends in operation in socialist countries, has, of course, to be taken for what it is—'forecast based upon an earnest wishful thinking'. But this forecast has definitely a Marxian content and it can be soberly taken as an important item on the agenda of the future, and not at all a very distant future.

VI

THERE ARE TWO OTHER important points which are essential elements in Marxian approach on population which can only be dealt with very briefly. One of them is very well knownthe Marxian faith in science—technological possibility of creating abundance in an economy without exploitation and with fair chances for all. This was a living faith of Marx and Engels even hundred years ago, but has now acquired a fuller and realistic meaning in the existing stage of knowledge and technology. The fear for the future, whether it was or was not justified a hundred years ago, is completely uncalled for in spite of 'demographic explosion'. It is now admitted by alleven by men without social vision—that technological possibilities of creating a state of plenty for all are truly unlimited provided men can reorder their lives with a view to realising these possibilities and all known and acknowledged inhibitions to growth are purposefully removed. This is a big proviso and, of course, implies that basic far-reaching social changes are any essential prerequisite of realising plenty. But what has been achieved in advanced capitalist countries points to a reasonable certainty that this task can be accomplished if the will to do so can be developed and put into action.

The other point is not as well known as the first and that is that if population tends to get out of hand in spite of planning and full development of resources, there is no reason why it should not be possible to curb it by taking effective preventive measures. 'There is', in the words of Engels, 'the abstract possibility that the number of people will become so great that limit will have to be set to their increase.' In a planned socialist economy, according to him in which 'production of things' has already been regulated, it would be possible to regulate 'the production of human beings'. 'It will', to quote his words again, 'be precisely this society and this society alone which can carry this out without difficulty.' This very clearly supports the view stated above that population planning, including the regulation of 'the production of human beings', can, in the real sense, be realised only in a planned socialist society. This view clearly stated by Engels in 1881 has been an assumption of Marxian thinking all these years, though owing to polemics of overpopulation it has not been given its due prominence.

The outstanding population issue of today, i.e., the greatly accelerated rate of population growth owing to steep fall in the death-rates, even in relatively backward countries, is the most important issue of today. Since it is unthinkable that all-out effort to save life by inexpensive but effective method of death control should be relaxed, let alone abandoned, further considerable reduction in the death-rate in the poorest, and, even in a number of cases, overpopulated countries of the world, cannot and should not be avoided. It should really be pursued with the utmost vigour and determination.

In the UN publication referred to above, fall of the death-rate from 1950 to 1975 has been forecast from 25 to 17 per thousand for the world, 33 to 29 for Africa, 33 to 20 for Asia and 19 to 12 for Latin America. As the death-rate for advanced countries even in 1950 varied from 7 to 12, reduction in these rates much below the existing levels can well be anticipated. As stated before, the death-rate of a number of undeveloped countries is almost about the same as in the advanced countries, but this trend is bound to spread to the other underdeveloped countries. It is almost certain that this will happen.

In India, for example, the death-rate of 22 per thousand in

1961 would drop at least to 15 per thousand, probably lower, and this is likely to happen in all undeveloped countries in which at present population is increasing with great rapidity. The UN forecast is really an underestimate of how effective the health measures against epidemics and disease can and are likely to be. Victory in the war against disease is really one of the best achievements of mankind in recent times and all advances in medicine have to be pressed fully into service for fighting disease to the finish. The real object has to be, not to keep men merely alive, but in a state of high physical wellbeing and this can be done if their standard of nutrition is materially raised by increasing the supply of highly nutritive foods and to enable the poorest to buy them by increasing their purchasing power. This is a matter not only of utilising to the full the latest advances in medicine, but bringing about redistribution of income for the benefit of the poor in general and the rural poor in particular.

This end cannot be achieved without far-reaching radical social changes, i.e., a real social revolution. Decline of the death-rate is not only due to the advance in medicine but also to the increasing sensitivity of social conscience and creating new social pressures. This process has to be continued. It is clear that it cannot be abated and further material reduction in the death-rate has to be taken as not only inevitable but preeminently desirable and to be enthusiastically welcomed as a very happy and significant sign of the times and as a measure of real advance in social well-being.

Another very welcome sign of the times is that there is almost a general consensus on a world-wide scale on the necessity and desirability of contraception as a measure of family limitation and population control. The old controversies on the subject are not dead as yet, but the wind in favour of contraception is blowing strong and opposition to it is not only weakening rapidly but is losing conviction and will to fight. Most governments—of right, centre and left—are not only favouring contraception but actively sponsoring and promoting

it. There is need still to carry on education of the masses all over the world in favour of contraception but the need for carrying on a crusade for it has almost passed away and there is, largely speaking, hardly any resistance to it.

This has also happened most significantly in the communist countries in which official and articulate public opinion was, until recently, very strongly against it. The change which has come about in these countries in less than two decades is due to liberalisation of the outlook of the whole communist movement; and though in China anti-liberal trends are strong in general, they have not succeeded in reversing the trend towards widespread adoption of contraception as a way of life. In the Catholic church also the strong disapprobation of contraceptives has very much weakened and the clerical and Papal disapproval is very half-hearted. It is a fact that opposition to contraception can be taken as almost a lost cause. Social inertia, apathy and subconscious fears still are obstacles in the way of the adoption of contraception on a much wider scale in spite of this very important development on a world-wide basis.

Decline in the birth-rate has lagged far behind the decline in the death-rate, and the result is that the gap between the two is widening and accounts for 'demographic explosion'. This trend, it is almost certain, is likely to persist, i.e., fall in the birth-rate is likely to be more than neutralised by the fall in the death-rate and the rate of increase of population most likely will remain high. The UN forecast of the rate of increase for the world, Latin America, Africa and Asia by 1975 are 19, 20, 16 and 15 per thousand respectively. This estimate is based upon serious underestimation of the fall in the rate of mortality; and the actual rate of increase in most of the undeveloped countries and the world is likely to be nearer 20 than 15, i.e., population in these areas would probably double itself in one generation. This is a very strong argument for doing all that is possible to make the movement for contraception a mass movement everywhere.

All the same it has to be admitted that the very rapid

increase in population in the next two decades is unavoidable in the world and in the undeveloped countries. Broadly speaking it is likely that world population will increase by at least 1,000 million and population in India by at least 250 million, i.e., between 25 to 30 per cent in this period. This prospect has to be faced and provided for. Purposive limitation through contraception of the size of the family is a great revolution, and as it involves profound changes in the exercise of 'passion between sexes', the whole pattern of family life and the place of woman in society, fall in the birth-rate to keep pace with or exceed the fall in the death-rate cannot and should not be expected.

Increase of 25 to 30 per cent of population in the world and most undeveloped countries in the next two decades, as pointed out above being inescapable, this has to be made the underlying assumption of all population studies and population policies. Planned parenthood has unfortunately been outside the orbit of Marxian thinking for reasons cited before. Errors of the past have to be corrected and family limitation through contraception has to be made one of the cardinal features of economic and social policy. If population planning is earnestly undertaken in socialist countries, all the implications of contraception extending right into the deepest recesses of individual and social life would have to be earnestly thought about and examined with the utmost detachment and objectivity. This task has to be undertaken and performed with real understanding and ardour.

This conclusion is unavoidable and has to be, as stated above, taken as a fundamental assumption of population policy. This is going to mean great and growing increase in labour force, increasing burden of a number of children and the aged, imbalance between not only the rich and poor countries owing to widening gap between them, but also among the poor countries owing to the varying pressures to which they are being subjected because of the unevenness of their population growth. This is also true of individual countries for there are

wide variations in the changes of regional population pressures.

All these results produce a dangerous situation and only family planning—increasing use of contraception—is no answer to the situation. Those who need employment in the next two decades have already been born, the dependants who need schools, etc., or have to be maintained in health or provided training for work in life are also already there. Disturbing effects of rising expectations and new social aspirations and their ready responsiveness to the calls for action in face of a very disquieting outlook are also given facts of the existing situation and have to be reckoned with. If the baby boom continues and its mounting pressure cannot be abated, the position will, of course, become much worse. The fact that fall in the death-rate for a long while cannot be neutralised by a parallel fall in the birth-rate or the latter necessarily must lag behind the former is the most decisive factor in the present world population situation.

The case for giving contraception a place of high priority in the social policy of each country and the world is very good indeed; but the vital point is that it will not and cannot make any difference to the existing pressures of population and those which are so clearly in sight. Family planning is often presented as an alternative to communism or other assumed disturbing social or economic changes. It should be clearly realised that it is no alternative at all and revolution will take its own course. family planning or no family planning. Inherent instability of the existing economic system in nonsocialist countries and their inability to meet the necessary social stresses is completely independent of family planning movements and the success which they can achieve. Their limitations referred to above are there; but apart from them, the revolutionary content of the existing situation cannot be affected or altered by whatever success these movements can achieve in practice.

From the Marxian standpoint revolution is inevitable in any case; but the fact that population has been and is increasing so fast makes it much more so. What is essential is:

that all the resources of science and technology should be fully utilised to set up a very fast rate of increase in economic growth in the undeveloped countries. This can be done, however, if their own resources are fully mobilised and, what is far more important, the masses in these countries are deeply stirred and all their energies, intelligence, initiative and capacity to work together for social liberation and well-being should be brought into being and action. This has to be the law of population in the historical situation which exists today and as it is likely to develop.

In other words, a revolutionary situation, which has existed all these years, has become much more so by the mounting pressure of population. The only adequate answer to the accelerated rate of growth of population is much more accelerated rate of economic growth for which modern science, technology and scientific economic management have to be utilised to the greatest advantage. This cannot be done, however, under the existing very regressive social systems of the undeveloped countries. The latter effectively inhibit their use and seriously retard their economic growth so urgently needed to enable them to take their rightful place along the side of and as equal partners of the advanced countries. Dominance of the latter over the former and over the world economy has, of course, to be ended. The poor countries have to come into their own and attain full economic sovereignty and independence. They have to end the dominance of their own exploiting classes and release and realise the development potential of their own masses, which, of course, means that a strategy of revolution is clearly indicated by the pressures of the existing situation, including the population situation.

It also follows that the ghost of Malthus has to be finally and completely laid to rest and the spirit of Marx invoked to deal with the situation of today which is so very explosive not merely because of the great acceleration of the rate of population growth but because formidable problems of 2,500 millions living in the undeveloped countries cannot be tackled,

much less solved, without making their masses the arbiters of their own future and a decisive and irresistible force in shaping it.

Nehru used to say that Marx had been outdated and was largely irrelevant to the problems of today. Similar statements are also made by others who have not even Nehru's insight into and understanding of Marx. The population situation as it has been and is developing certainly does not warrant such an assessment of Marx. It really shows how very relevant his views on population are even today, if their spirit is properly understood and the clues to the solution of its porblems are looked for and followed.

The Historical Approach in Marx

S. C. SARKAR

T

On the occasion of the centenary of the first volume of Das Kapital, people all over the world will recall its epochmaking analysis of capitalism. But Marx was no mere economist; he was also the great political theorist of the working-class movement, a philosopher of distinction, an acute historian. Marxism of course is an integral thought, in which economics and politics, philosophy and history fuse into a complete whole. Yet for the sake of a clearer understanding, it is permissible to separate one aspect of it as an 'isolate' (to use the term once proposed by Professor Levy), provided we do not forget to restore it at the proper time to the logical entity to which it belongs.

History-writing flows in three main channels, on three levels as it were, though it is better not to arrange them in a hierarchic gradation. In the first place, there are the articles, reviews, monographs, theses which examine some specific issue, some 'moment' in the stream of history. Secondly, we have the broader surveys of regions, countries, movements, epochs which afford a more sweeping view. Thirdly, men attempt still wider visions of historical development as such, fringing upon

some kind of philosophy of history. In each of these three forms Marx's contribution is unforgettable.

Professional historians reject such evaluation on the ground of Marx's alleged lack of objectivity. History, we are told, is a record of things 'as they happen', a presentation of 'objective truth' which leaves no room for a 'point of view'. Surely there is here a wrong understanding. In any social study, a point of view is sure to emerge, or at least lurk behind the scenes. The unavoidable primary task of selection and grouping of facts will ensure this. After all, some kind of point of view is part of every writer's mental make-up and arises inevitably from his environment, experience and reflection. Those who prattle against a point of view in history remain blissfully unconscious of their own points of view.

The wiser historian will not disown his point of view but will constantly assess and examine it in the light of the available evidence which must not be wilfully suppressed. Nothing more can be rightfully demanded of him. As for the presentation of objective truth, admittedly man's knowledge has no finality. Every mental construction must be only a search after, an approximation to the truth. But our knowledge and theories are nonetheless objective truth, in spite of their relativity. This is quite possible if we follow the rules of evidence and reasoning. And as in science, so in history, imagination springing out of solid information can never be ruled out in framing a hypothesis leading to further investigation.

The fashionable a priori arguments against Marx's claim as a historian are indeed illogical and puerile. They are facile ways of evading his challenge.

П

Specific studies in history—of the first type indicated above—by Marx and Engels are mostly grouped in the two volumes of Historical Writings, published by the Moscow Institute (first Indian edition in 1944). In addition we have the articles and

notes on India, as well as numerous scattered references elsewhere to other historical topics, and finally the stimulating points raised in the Correspondence. The range of interest and information thus revealed is truly impressive. One comes across penetrating memorable discussions on the histories of France and Germany, East Europe and Spain, America and India, references to the developments in Ireland, Britain, Russia, China, etc.

Most of these studies bear upon contemporary history, though the background information is never absent and often striking enough. It is often argued that contemporary history is not history at all, for inevitably there would be a 'bias'. This bias is only another name for the unavoidable point of view already discussed. And is 'bias' absent from earlier history? Any account of crucial periods like the Renaissance, the Reformation, the French Revolution, the Indian 'Mutiny' is likely to be even more biassed in this sense than sketches of contemporary events.

It will not be too much to claim that no competent teacher, no serious student of 19th century history can afford to miss the light thrown by Marx and Engels. Much of the material they gathered and used has been passed over, unconsciously or wilfully, in the books offered to us today. Conscientious historians cannot ignore such evidence in the interest of history itself.

The most brilliant of the specific historical writings of Marx are the three booklets on French history: The Class Struggle in France 1848 to 1850 (1850), The Eighteenth Brumaire of Louis Bonaparte (1851-52), and The Civil War in France (1871). They are a mine of historical information, with keen observation and deep insight, and illustrate the issues in France in the second and third quarters of the 19th century to an extent which few books have attained. To an unprejudiced reader, they are also gems of historical writing, even if every formulation is not readily acceptable.

Engels does not fall far short of this achievement in the-

two booklets on German history: The Peasant War in Germany (1850) and Germany—Revolution and Counter-Revolution (1851-52). The first, as Engels honestly admits, is based on the factual material presented by the historian Zimmermann in 1841, but goes beyond it in raising fundamental issues like the origins, theories, and consequences of the great revolt of 1525, in the light of Marx's materialist conception. The latter, in which Marx collaborated, is a collection of 20 letters in the New York Daily Tribune, which offer a detailed account of dramatic events with exceptional insight and observation, indispensable for any student of 1848.

Marx's Revolution in Spain (1854-58) is not very well-known and yet of outstanding historical value. It is a collection of 25 contributions, with some of which Engels was associated, published in the New York Daily Tribune, Putnam's Magazine, and the New American Cyclopacdia. Primarily concerned with the abortive revolt of 1854, this work contains background discussions of exceptional historical merit. We find here, for example, a detailed examination of the development in the Peninsula since the 16th century; an analysis of the popular revolts in the first half of the 19th; and a review of the 'dual character' of the movement of 1808-14. Marx raised incidentally the problem why, in the very country where absolute monarchy was among the first to arise, 'centralisation has never succeeded,' so that Napoleon found that 'the centre of Spanish resistance was nowhere and everywhere.'

The Civil War in the United States, a collection of writings by both Marx and Engels, is perhaps equally unfamiliar. It consists of Marx's 7 articles in the New York Daily Tribune; 35 contributions by the two friends in Vienna's Die Presse (both in 1861-62): and extracts from 61 letters by them between 1861 and 1866. Here there is ample historical material—for instance on the British cotton trade and the economic situation; English public opinion and the reaction among the workers: the intricacies of the Trent Case; the course of military events; parliamentary debates; and the Abolitionist

movement.

Marx's discussions on Indian history, by contrast, have attracted considerable attention. In the present context it will be enough to note that Marx had posed here five specific questions—the nature of the ancient Indian economy; the sequence of political events in Muslim India; the functioning of the British East India Company; the character of the Revolt of 1857; and the future results of the British Rule in India. Incidentally, Marx's passion for medieval Indian chronology was only possible in a historian.

Apart from the more solid endeavours indicated above, miscellaneous historical points and comments are scattered lavishly throughout Marx's writings. Often enough they are suggestive, thought-provoking, occasionally brilliant. Anyway, they are quite sufficient to establish the historical approach in Marx, the contention that Marx had a perennial interest in history.

III

In the SECOND TYPE of historical effort—the broad survey—the main contribution of Marx is enshrined in the four volumes of Capital.

The first volume, perfected and published by Marx himself in 1867, is beyond question one of the most stimulating books ever written. It is 'a critical analysis of capitalist production' and depicts this mode of production in historical motion.

In the original preface, Marx defined his aim to be 'to lay bare the economic law of motion of modern society'. He added—'the evolution of the economic formation of society is viewed as a process of natural history... the present society is no solid crystal, but an organism capable of change, and is constantly changing.' In the preface of 1873, we have his further explanation—rational dialectics 'regards every historically developed social form as in fluid movement, and therefore takes into account its transient nature not less than its momentary existence.' Motion, evolution, process, fluid movement are of course

the very essence of history.

Engels in the preface to the English edition (1886) underlines the historical approach of *Capital*. He characterises Marx's theory as one 'which views modern capitalist production as a mere passing stage in the economic history of mankind' and 'the result of a lifelong study of the economic history and condition of England.'

The historical approach in the Capital did not escape the attention of some contemporaries. A Russian reviewer in 1872 summed up Marx's outlook as essentially historical: 'Abstract laws do not exist. On the contrary...every historical period has laws of its own...economic life offers us a phenomenon analogous to the history of evolution in other branches of biology.... With the varying degree of productive power, social conditions and the laws governing them vary.'

Marx's objective in the Capital outlined above did not remain a mere pious ideal. To substantiate his argument, he drew illustrative material from history, alike of economic thought and economic events. We read in the Athenaeum review of 1887: 'Marx has drawn not only upon the works of contemporary economists and a great variety of parliamentary and other reports, but upon the writings also of the earliest English economists of the 16th and 17th centuries, with which he shows a familiarity quite unusual.' A study of the index to Capital I shows that Marx drew materials from no less than 248 authors (ancient, medieval, modern and near-contemporary); from 46 anonymous works (some of these occur in the first list also); from the different issues of 21 newspapers and periodicals; and from as many as 84 official reports. Any historian could be proud of such a range of scholarship.

History involves a command over concrete factual material. In *Capital I*, Marx marshalled his knowledge of facts in a truly overwhelming fashion. We find section after section crammed full with detailed historical information—for example in the Dona Torr edition (1938), between pages 227 and 288—conditions without legal limits to exploitation; legislation to

extend working hours from the mid-14th to the end of the 17th century; the limitation of the working day by factory acts; the reaction in other lands. Between pages 391 and 512 again occur the historical facts about—the employment of women and children; prolongation of the working day: the intensification of labour; strife between the worker and the machine; the crisis in the cotton trade; the effects on domestic industry: the factory acts with their sanitation and education clauses. The mere recital of some of the themes demonstrates Marx's grasp over history.

In Capital I we also come across isolated passages in passing on noncapitalist modes of production—patriarchal primitive. ancient oriental, European classical, medieval servile, etc. But Marx's main discussion of such historic formations must be sought elsewhere.

Much of Capital I is devoted of course to an abstract analysis of capitalism, but the result is nonetheless a revelation of the motion inherent in the system, that is a process of historical unfolding. The labour process is common to all actual and possible social formations, being the indispensable union between nature and labouring man; without it man cannot exist. Whenever a part of society owns the means of production, the surplus product is privately appropriated by the owning classes and there is 'exploitation', a historical phenomenon. When commodity production arises, there is the creation of value. Surplus value comes under capitalist production, with 'capital' on the one hand, 'free labour' on the other. The capitalist quest after surplus value is a 'straining after an unlimited extension'. This involves internal contradiction which ultimately results in the passing away of the capitalist mode of production. Like previous economic systems, capitalism is a mere stage in history.

The origin of capitalism is then a historic process—the 'primitive accumulation of capital' on the one hand, and the massing of free labour ready to sell labour power on the other (free in a legal sense; 'free' from the means of production in the socio-economic sense as well). This conjunction does not

happen always. Capitalism then is not something eternal; it is only a specific historical mode of production.

The accumulation of capital is not the consequence of the existence of two kinds of people in nature, the diligent elite and the lazy rascal—not the result of some 'original sin'. 'In actual history, it is notorious that conquest, enslavement, robbery, murder, briefly, force, play the great part...the methods of primitive accumulation are anything but idyllic.' Chapter after chapter in Capital I offer the historical evidence for this formulation.

Historically once more, the dissolution of the preceding feudal structure is bound up with the growth of the capitalist mode of production. The 'expropriation of the peasantry' was the basis of the whole process. This is again a chapter in real history. It involved in the first capitalist country, England, the spoliation of the church property, the disbanding of feudal retainers, enclosures, decline of the yeomanry, pauperism, the clearing of estates, and such like historical developments. 'Expropriation of the mass of the people forms the prelude to the history of capital.'

Not merely the historical origins of capitalism, but also the process of its further development received in Marx the same historical treatment. Basing himself on the concrete experience of England, he laid bare two stages of growth. In chapter 14 of Capital I, there is the account of the rise of manufactures (mid-16th to end of the 18th century)—with the union of various handicrafts and the splitting up into detail operations, together with the advent of political economy itself. Chapter 15 deals with machinery and modern industry, with an analysis of a machine into three component parts—the motor mechanism, the transmission mechanism, and the working tool. The two chapters cover nearly 200 pages (pp. 327-515) in the first volume of Capital.

Marx traced the historic process at work in contemporary capitalism. 'Expropriation of the mass of the people' from the means of production is accompanied by the growth at the other pole of 'mass of misery, oppression', '(wage) slavery, degradation, exploitation'. 'With this too grows the revolt of the working class...disciplined, united, organised by the mechanism of the process of capitalist production itself. The monopoly of capital becomes a fetter upon the mode of production.... Centralisation of the means of production and socialisation of labour at last reach a point where they become incompatible with their capitalist integument. The integument is burst asunder.' (p. 789). Even if one does not embrace the whole analysis, its essential emphasis on a movement in time, the process of history, remains beyond challenge.

IV

THE LATER VOLUMES OF Capital did not have the benefit of Marx's masterly finished touch. But nonetheless they were compiled faithfully from the voluminous manuscripts and authentic notes left by Marx himself.

The second volume was published by Engels in 1885, his preface being dated on Marx's birthday. Capital II is most severely analytical and abstract, dealing with the metamorphoses, the turn-over and the reproduction and circulation of capital. Its most memorable theoretical formulation is the distinction between Departments I and II.

Yet the historical material contained therein is by no means inconsiderable. Apart from the scattered references, at least 100 pages (Untermann's translation) are covered by historical discussions (chapters 10, 11, 19, sections ix and xiii of chapter 20). The historical approach persists therefore in Capital II in spite of its predominantly theoretical form.

Capital III was brought out by Engels in 1894. It deals with the capitalist production 'as a whole', and necessarily therefore in accordance with Marx's outlook a mass of historical material had to be harnessed.

In the opening chapters, over 30 pages (Untermann's translation) are filled with factual reports on coal mines, work in

closed rooms, economies in power, fluctuations in price, and the cotton crisis of 1861-63. Again in chapters 24 to 35, historical facts and discussions cover about half of the approximately 250 pages. Here we find a survey of credit and currency literature, bank records, English bank laws, exchange statistics. These are enough to dispel any misconception that Marx was occupied only with abstract theorising. In the style of a true historian Marx could comment in passing: 'The monetary system is essentially Catholic, the credit system essentially Protestant.... It is Faith that makes blessed.'

Capital III is of great value to historians for its discussions on merchants' capital, usurers' capital and rent.

Chapter 20 is concerned entirely with the historical data on merchants' capital which of course is 'older than the capitalist mode of production'. The merchant in old societies 'tries to trap' the wealth and luxury of the principal owners of the surplus product—the slave-holder, the feudal landlord, perhaps the state ('for instance, the oriental despot'). 'Where merchants' capital still predominates, we find backward conditions', 'a system of robbery'. The role of merchants' robbery comes out in ancient Carthage and Rome, and among the later Venetians, Portuguese, Dutch, etc. 'But the development of merchants' capital by itself is incapable of bringing about and explaining the transition from one mode of production to another.' 'What new mode of production will take the place of the old does not depend on commerce, but on the character of the old mode of production itself.' Gentle fun is poked at the historian Mommsen who found capitalism and the rule of capital in ancient Rome. In the antique world, merchants' capital saw the rise of slave economy; in the modern world, it has been followed by the capitalist mode. Even in ancient society, merchants' capital did not mark the development of crafts in Rome: in Corinth and the Greek cities, it did. In the modern epoch, the capitalist mode could arise in mercantile Holland, but not in mercantile Portugal. The history of the decline of Holland, in contrast to England, is the history of the lack of any subordination of merchants' capital to industrial capital. The obstacles presented by the precapitalist modes of production to the 'corrosive influence of commerce' is shown in the intercourse of the English with India or China. Where the merchants take possession of production (the English clothiers), there is 'an obstacle to a real capitalist mode of production'; when the producer becomes a merchant and capitalist, there is 'a revolutionary transition from feudalism'. With large-scale industry, 'commerce becomes the servant of industrial production.'

Chapter 36 on 'Precapitalist Conditions' historically reviews the role of usurers' capital. 'It does not alter the mode of production, but attaches itself to it as a parasite and makes it miserable. It sucks its blood.' It 'paralyses the productive forces instead of developing them.' 'Under the Asiatic forms usury may last for a long time, without producing anything else but economic disintegration and political rottenness.' Roman usury ruined the plebeians and the small peasants; slave economy was only more firmly established thereby, instead of any transition to a new society. The medieval church, it is noted in passing, forbade the taking of interest; 'but the sale of property for the purpose of getting out of a tight place had not been forbidden': 'it had not even been forbidden to transfer property for a certain period to the moneylender as a security.' Thus the church profited, as during the Crusades. Holland's economic progress in the 17th century marked the overthrow of 'the monopoly of the old-style usury, based on poverty'. The Bank of England followed the Dutch example and cut down the interest rates, and the usurers, 'goldsmiths and pawnbrokers raised a howl of rage', as Macaulay noted.

Chapter 47 on rent has also an essentially historical approach. The most primitive form is labour-rent, 'the brutal form of forced labour for another'. In rent-in-kind, 'the direct producer is rather driven by the force of circumstances than by direct coercion...to perform surplus-labour on his own responsibility... this form is quite suitable for becoming the basis of stationary conditions of society, such as we see in

Asia. . . . This is particularly the case, when this form is met and exploited by a conquering industrial nation, as India is by the English.' Under money-rent, 'the direct producer no longer turns over the product, but its price to the landlord (who may be either the state or a private individual) . . . a certain portion of this must now be converted into commodities. . . . The character of the entire mode of production is thus more or less changed.' Under capitalism, with propertyless day-labourers and capitalist tenant-farmers, capitalist ground-rent emerges. This is the share of the owner of land in the surplus over capitalist profit in the surplus-value extorted from the direct producer. Ground-rent takes the two forms of differential and absolute rent.

Towards the end, Capital III presents a vivid total picture of the Marxian economic analysis in its historical setting. 'The specific economic form, in which unpaid surplus labour is pumped out of the direct producer, determines the relation of rulers and ruled.... Upon this is founded the entire formation of the economic community which grows out of the conditions of production itself, and this also determines its specific political shape. It is always the direct relation of the owners of the conditions of production to the direct producers which reveals the innermost secret, the hidden foundation of the entire social construction.... This does not prevent the same economic basis from showing infinite variations.... This is due to innumerable outside circumstances.' (p. 919).

Men cling tenaciously to their own mode of production, to capitalism for example, as 'independent of all historical development'. This is the great unhistorical illusion. But 'capital is not a thing. It is a definite interrelation in social production belonging to a definite historical formation of society', while land and labour 'are common to all modes of production.' 'The scientific analysis of the capitalist mode of production demonstrates that it is a peculiar mode of production, specifically defined by historical development; that it, like any other definite mode of production, is conditioned upon a certain stage of

social productivity and upon the historically developed form of the forces of production. This historical prerequisite is itself a historical result and product of a preceding process, from which the new mode of production takes its departure as from its given foundation. The conditions of production corresponding to this specific, historically determined mode of production have a specific, historical, passing character.' (p. 1023).

Again: 'the labour process is a simple process between man and nature, its simple elements remain the same in all social forms of development.... Whenever a certain maturity is reached, one definite social form is discarded and displaced by a higher one. The time for the coming of such a crisis is announced by the depth and breadth of the contradictions and antagonisms, which separate the conditions of distribution, and with them the definite historical form of the corresponding conditions of production, from the productive forces, the productivity, and development of their agencies. A conflict then arises between the material development of production and its social form.' (p. 1030).

Capital IV is better known as the Theories of Surplus Value. Marx called this projected volume the 'historical, historicocritical, or historico-literary part' of his work. It was in effect a thorough examination of the history of political economy. Engels did not live to publish it: it was brought out first by Kautsky in 1905-10 in a very defective form. The authoritative edition came from Moscow as late as 1954.

The book begins with an account of Steuart's 'hopeless attempt to give a rational form to the monetary and mercantilist system' (chapter 1). Two chapters (2, 6) are devoted to the physiocrats, who transferred the origin of surplus value from circulation to production. Two more (3, 4) deal with Adam Smith, who went forward and in part also backward in relation to the physiocrats. Chapters 5 and 7 are concerned respectively with Necker and Linguet. 13 addenda follow in which a host of other economists are discussed. This is as far as part I goes.

Part I drew from as many as 54 economic writers with

their different writings. The sources of the various quotations lie in the English, French, German and Italian languages—a testimony to the historical scholarship of Marx.

One chapter in part II is on Rodbertus (No. 8). Another digression is chapter 9 on different views about differential rent. Then follow the nine chapters with an exhaustive discussion of Ricardo.

In part III, we have the exposure of Malthus in chapter 19. The next chapter describes the retreat of the post-Ricardians from the master himself. Chapter 21 is on the 'proletarian opposition based on Ricardo'. The last three chapters deal with some of the other economists.

The mere catalogue of contents of Capital IV is a demonstration that no survey of political economy up-to-that-date on this scale has ever been attempted.

V

THERE REMAINS TO BE considered the third great stream of history-writing—the generalised view of historical development in its entirety, approaching a distinctive philosophy of history. Marx's main contributions here lie in his German Ideology (along with Engels), the Precapitalist Economic Formations (usually called the Formen), and the famous preface to the Critique of Political Economy. The recent discussion of Professor Hobsbawm on this is of great value and I have freely drawn upon it.

What are the different social formations which can be detected and identified in the historic record? Can the most fundamental principles of social transformation be formulated?

Popular Marxism gives a categorical answer to the first question. The usual current formula is a passage from primitive communism to slavery, feudalism and capitalism (in that order), heading towards socialism today. This is a simple story of unilinear progress for mankind, easy to understand and remember, and certainly not totally wrong.

But Marx had a profound scientific mind, not prone to simplification. He was also a pioneer pathfinder, with a historical temper generalising only from concrete study of reality. His dialectics involved not merely the rejection of Hegelian mystification, he had also no patience with easy ways out like 'wooden trichotomies'. In his search after generalisation he was historical.

There is therefore in Marx no final answer to our first problem. And he went on searching for the different social formations, while he was firmly convinced that there are different forms passing in the span of history, the basic concept of historic transformation, the essence of his historical materialism.

The German Ideology of 1845-46 seems to identify four stages of historic development, corresponding to various forms of property. The first is communal property, tribal ownership. This is an 'extension of the family', with even then some 'slavery latent in the family' as it were. Then comes the 'communal and state property of antiquity', when tribes form into cities 'accompanied by slavery'; we have 'private property developing' alongside, till slavery may become 'the basis of the whole productive system'; the intermediate plebeians then turn into 'a proletarian rabble'. The third stage is 'feudal or rank ownership', feudal or estate property. Here we find the 'enserfed small peasantry' and 'the feudal organisation of trades'; small-scale cultivation and the 'craft type of industry'; the starting out from the country, rather than from the antique cities; the 'division into estates'; the formation of kingdoms by 'a necessity'. Fourthly, we detect the transition into the bourgeois society—the gradual rise of the burgher class; manufactures outgrowing the gild system; the struggle for trade and the world market; the creation through trade and manufacture of the big bourgeoisie.

The Communist Manifesto of 1848 is a rough simplification

of the above picture. It emphasises explicitly however the 'constant opposition' between 'oppressor and oppressed', appropriate and understandable enough in a fighting document which opens and ends with a challenge to existing society. 'The history of all existing society' (Engels later amended this to 'all written history') 'is the history of class struggles.' Three types of class society alone are recognised here: the slave society of antiquity, the feudalism of the middle ages, the modern bourgeois society. This becomes the common parlance of Marxism, a clear simple picture.

Unfortunately perhaps, Marx in his Formen presents us with a later, more sophisticated, more complex, more tentative, more considered sketch of social development. In his search after historic truth, he was evidently not afraid of any charge of 'revisionism'. The main innovation now is the Asiatic or oriental system which did not figure ten years before.

In the Formen (1857-58), we begin with 'the tribal community' of 'communal proprietors'—with the emendation that 'this form can realise itself in a variety of ways.' There appear now alternative routes, not a unilinear path, out of the original primitive communal system: the Asiatic oriental, the classical ancient, the rather inchoate Germanic, the shadowy Slavonic. There is here also a crucial distinction between systems which resist and those which favour historic evolution, absent before. Clearly the Asiatic and perhaps the Slavonic belong to the first category.

The Asiatic society is not characterised chiefly by the absence of property in land and by centralised public works and irrigation, as the articles on India (1853) seem to suggest. The emphasis in the Formen falls rather on 'the self-sustaining unity of manufacture and agriculture' within the oriental village community, which of course would resist economic change. Instead of invariable oriental despotism, it is admitted that authority may be 'more despotic or more democratic' in form. The village communities may come under an 'all-embracing unity' from above, which would then appear as 'the higher or

sole proprietor, the real communities only as hereditary possessors; ... Oriental despotism therefore appears to lead to a legal absence of property.' 'Irrigation system... means of communication, etc.... appear as the work of the higher unity': cities are mere 'locations for external trade', or 'princely camps'.

In the antique European society, which 'like the first gives rise to substantial variations', there is 'a more dynamic historical life'. 'The basis here is not the land, but the city': there is common land, but 'conditions arise which allow the individual to become a private proprietor—of a particular plot.'

We now encounter in post-primitive society a third type—the Germanic (not limited of course to the Germans alone). The community appears here as 'an association, not as a union'; common land is in the form of hunting grounds, pastures, woodlands—'a mere supplement to individual property': 'the foundation is the isolated, independent family settlement' linked by the 'occasional assembly'.

The Slavonic form obviously is akin to the Asiatic, but it is not elaborated in the Formen.

It would appear that Marx thought the oriental and the Slavonic forms to be the nearest to the original primitive community. The ancient classical and the Germanic types are not however derived from the Asiatic oriental society, but represent a more articulated, more dynamic type. This is a clear rejection of the unilinear ladder-like common conception of social progress. Incidentally, this keeps open the road for further investigation and research. The list in the Formen remains thus tentative.

Slavery and serfdom appear in the Formen as 'secondary, never primary', being only further developments of property. They modify the forms above but are least able to do so in the Asiatic mode. Contrary to the popular Marxist presentation, antique classical society now seems to start with citizen small owners, and not slavery; it generally ends in slavery. This picture is much nearer of course to what concrete history has revealed of ancient Europe.

The Germanic form is hardly a complete socio-economic formation, for it is also presented as the substratum of feudal society, in conjunction with the medieval town.

Feudal society and the dissolution of feudal relations to the emergence of capitalism in the Formen is broadly the same

process as worked out later in the Capital.

The Formen is not one of those earlier writings of Marx about which much fuss has been made recently. Though unpublished by him, it is the product of Marx in his maturity, and was intended by him to be a basis of the Critique and Capital. It is the foundation of the celebrated formulation in the preface in the Critique (1859), a full decade after the Manifesto: 'in broad outlines Asiatic, ancient, feudal and modern bourgeois modes of production can be designated as progressive epochs in the economic formation of society.' 'Progress' here obviously refers to Marx's conception of the general social development in its totality, not the simple unilinear 'leap' from stage to stage. What remains solid is the broad transition from primitive society to class societies of different types leading irresistibly towards the classless society of the future. The understanding in the Formen is also duly reflected in the still later masterpiece Capital, in its many scattered references to precapitalist formations.

But Marx and Engels never stopped in their historical enquiries. They were drawn to a further study of primitive communism, under the influence of the historian Maurer, the anthropologist Morgan, the sociologist Kovalevsky. Engels's Origin clearly reflects this deeper interest. Feudalism also attracted their further attention: Engels formulated the concept of two periods of European serfdom, for example, with an intervening freer interval; he pointed out to Marx in a letter in 1882 that 'formerly you expressed a divergent opinion of this.' Evidently, the two pioneers of thought never wearied in their quest after historical truth. Yet the fact remains that Marx never formally repudiated the Asiatic mode, though sometimes it was relegated to the 'archaic types' of society;

Engels dropped it in his Origin, apparently with the same idea that it belonged to the 'prehistory' of civilisation.

However, the need for simplification in the interest of the general movement persisted, and there was the natural demand for certainty. Engels in his Origin (1884) divided prehistoric culture into the epochs of savagery and barbarism, with three stages in each; in the epoch of civilisation he designated 'three great forms of servitude', the three forms of exploitation—slavery, serfdom, wage-labour. Stalin in Dialectical and Historical Materialism (1938) concluded: 'Five main types of relations of production are known to history: primitive communal, slave, feudal, capitalist and socialist.' Mao Tse-tung, writing on Chinese Society (1940), describes an apparently unilinear line of development in China—classless primitive communes, slave society, feudalism.

There is justification for popularisation for the cause. But no indication is usually given that Marx's own thought was more complex, and more historical than this. And thereby, by such silence, the popular craze for pocket-book wisdom may easily be stimulated. It will be a misfortune if Marx's genuine intellectual quest is allowed to be forgotten. Marxism surely cannot ignore Marx himself.

Whatever might be the uncertainties in the identification of the specific social formations in actual history, Marx never wavered about the more fundamental thing, the basic concepts of his philosophy of history, historical materialism. This is clear enough in various parts of Capital (notably the passages at the end of Capital III, partly quoted above), or even earlier writings like The Eighteenth Brumaire. The best short formulation occurs in the preface to the Critique of Political Economy. The often-quoted passage will perhaps bear recapitulation as an appropriate end to this long discussion:

In the social production of their life, men enter into definite relations that are indispensable and independent of their will, relations of production which correspond to a definite stage of development of their material productive forces. The sum total of these relations of production constitutes the economic structure of society, the real foundation. on which rises a legal and political super-structure... The mode of production... conditions the social, political and intellectual life process in general. It is not the consciousness of men that determines their being, but, on the contrary, their social being that determines their consciousness. At a certain stage of their development, the material productive forces of society come in conflict with the existing relations... From forms of development of the productive forces these relations turn into their fetters. Then begins an epoch of social revolution. With the change of the economic foundation the entire immense super-structure is more or less rapidly transformed.... No social order ever perishes before all the productive forces for which there is room in it have developed; and new, higher relations of production never appear before the material conditions of their existence have matured in the womb of the old society itself.

Applications of the theory, identifications of different social formations, definition of their characteristics may not be certain or final, leaving open the door to further historical investigations. The theory itself, the outlook, the approach remain firm enough. And history has never been, nor ever will be the same since Marx's penetrating vision swept over its entire domain.

Marx and Modern Economics

A. K. DASGUPTA

I

IT IS INTERESTING, from this distance, to look back to see what the position of Das Kapital was during the heyday of neoclassical economics. We have travelled far since those days and, if anything, the passage of our science has been towards rather than away from the economics of Karl Marx. So much so that I ventured to suggest in my presidential address to the Indian Economic Association in 1960 that the Das Kapital centenary, as it was soon coming, might well be marked by the appearance of a volume on 'Karl Marx and the Revival of his System' as perhaps a companion to Bohm-Bawerk's critique¹ which appeared towards the close of the last century.

The attitude of neoclassical economists to Das Kapital was more than one of indifference; it was one of hostility. The following quotation exhibits the kind of attitude that even the more sober among them bore towards the propositions of Das Kapital.

We have much sympathy with those who hold that the theories of Marx are beneath the notice of a scientific

^{1.} Bohm-Bawerk: Karl Marx and the Close of his System (German Edition, 1896; English translation, 1898).

writer. However, the refutation of prevailing fallacies has always been recognised as part of the economists' province. It is indeed a peculiarity of our science that its investigations generally start from a point which is, so to speak, behind the zero of ignorance. It is necessary to escape from error before reaching positive truth.

Thus wrote F. Y. Edgeworth, one of the profoundest among the contemporaries of Marshall and Bohm-Bawerk, in the course of a review of Nicholson's The Revival of Marxism, published in 1920.2 Nicholson himself had an equally scant regard for Das Kapital. 'The theory of value as expounded by Marx,' he observes, 'is a retrogression.' The mathematical apparatus in Das Kapital is 'on par with the maps and charts and ciphers put into the novels about the treasures hidden by pirates.' And 'the algebra of Marx compared with the algebra of Cournot... is as the charts of the pirate romance compared with the charts of the Admiralty.'

It is difficult to explain the venom which these criticisms carry except in terms of some provocation. And the provocation, as I would judge, came partly from the style in which Das Kapital was written; Marx himself was not at all sparing in his denunciation of the so-called 'vulgar' economists from whom the neoclassical economists apparently derived their inspiration. Partly also, as I suspect, the provocation was due to the fact that Marx was the author not only of Das Kapital but also of The Communist Manifesto.

II

IT IS SURELY POSSIBLE to pick holes in the specific theories which compose the system of Karl Marx, particularly when they are viewed in an isolated way. And critics who are in-

^{2.} Papers Relating to Political Economy (Royal Economic Society, reprinted by Burt Franklin), USA, p. 273. Nicholson's own observations that follow are quoted in the review.

terested more in the trees than in the wood have used a lot of ingenuity in showing up these lacunae.

The Labour Theory of Value which is the starting point of Marx's analysis can be shown to be wrong as an explanation of the phenomenon of price as it operates in the market, insofar as labour-capital ratios are unequal in different industries. Not that Marx did not realise this. A close student of Ricardo, he could not possibly miss it. However, while acknowledging its deficiencies in the context of what is today called microanalysis, Marx upheld it as significant in the context of macroeconomics. Here also, while he raises questions which his critics just ignored, his attempt in Volume Three of Das Kapital at a reconciliation between the theory of value and the theory of price is open to objection at the analytical level.3

The theory of falling rate of profits in terms of which Marx explains the inevitability of the collapse of the capitalist system is also based on a shaky analytical foundation. While, given the premises with which Marx works out his schema, the equation

showing the inverse relationship between
$$\frac{e}{v}$$
 and $\frac{s}{c+v}$ is

correct, the premises themselves can be shown to be inconsistent one with the other. The process of accumulation may no doubt increase the proportion of constant capital (c) to variable capital (v), but it should at the same time increase the productivity of labour, thus raising the surplus value (s) relative to the aggregate capital (c+v). If, on the other hand, accumulation raises wages through an increase in the demand for labour, as a neoclassical economist would argue, the process would offend the Marxian theory of exploitation, even though it might support the theory of falling rate of profits.4

Not only is the Marxian theory of falling rate of profits analytically vulnerable, it appears to have been unrealistic, too.

^{3.} See Paul Sweezy: The Theory of Capitalist Development (London, 1946), Chap. 7, pp. 112-15.

^{4.} See Joan Robinson: An Essay on Marxian Economics (London, 1942), Chap. 5, passim.

For, in those economies where accumulation has proceeded systematically since the days of Marx, profits have not tended to fall. And if there has been a collapse of capitalism in certain economies in recent years, it has not been due to anything like capital accumulation or the dwindling of profits; the communist revolution came, when it did, not in economically advanced countries but in economies which were yet underdeveloped.

Likewise one would find it difficult, in the face of evidences to the contrary, to accept Marx's explanation of chronic unemployment in a capitalist economy which runs in terms of the capitalists' combined effort at maintaining a reserve army of labour with a view to keeping wages down to subsistence level. As a theory of 'maximum rate of profits' Marx's formulation may be all right. But it surely falls through as an interpretation of reality.

Ш

YET, IN SPITE OF THESE deficiencies in the individual theories that make up the Marxian system, Das Kapital displays a comprehensive vision which is of the profoundest significance for the appreciation of the dynamics of capitalism, paving, as it does, the way to a general theory of economic growth. The questions that it raises transcend the realm of relative prices which were the exclusive preoccupation of the neoclassical economists. No wonder they could not understand Marx and got desperately irritated. No wonder also that after ε lapse of about a century modern economists, whatever their affiliations, are asking just those questions which Marx sought to answer.

Can we have a standard for the measurement of goods in general, so that the aggregate output can be compared with the aggregate input? What function does an excess of aggregate output over aggregate input—which one can call surplus value—perform in society? How does the distribution of aggregate output between wages and profits affect the growth of an economy? What is it that makes for the maximisation of this

surplus? Can this surplus be sustained over time? These are the crucial questions which Marx asked and these are the questions answers to which form the subject-matter of the modern theory of growth.

It is often thought that the Labour Theory of Value is an excrescence and can be dispensed with without injury to the Marxian system.5 If the purpose of the Labour Theory of Value is only to suggest the degree of 'exploitation' of labour, yes. But one can use the theory in other contexts, too, where it is much more instructive. Labour as a measure of output and input can be used with a view to the analysis of the formation of surplus in the way Ricardo originally used 'corn'. Piero Sraffa's formulation of the concept of a Standard System is a modern version of this classical line of thought. If the 'standard commodity' bears a constant relation to labour, then with its help we can have a measure of 'labour command', as Sraffa himself points out,6 and also the 'labour cost', and then proceed back to the system of Adam Smith. For, the excess of 'labour commanded' over 'labour embodied' yields a measure of surplus which. through the employment of what Smith calls 'productive labour', goes into the formation of capital. Both Smith and Marx considered labour cost as being given by the minimum subsistence, so that we have here a notion of the maximum rate of profits and the maximum possible rate of economic growth.7 The modern theory of growth which runs in terms of the relative marginal propensities to save on the part of capitalists and

^{5. &#}x27;No point of substance in Marxian argument depends upon the Labour Theory of Value. Voltaire remarked that it is possible to kill a flock of sheep by witchcraft if you give them plenty of arsenic at the same time. The sheep, in the figure, may well stand for the complacent apologists of capitalism; penetrating insight and bitter hatred of oppression supply the arsenic while the Labour Theory of Value provides the incantation.' Joan Robinson: An Essay on Marxian Economics (London, 1942), Chap. 3, p. 27.

^{6.} Piero Sraffa: Production for Commodities in Terms of Commodities (Cambridge, 1960), Appendix, p. 94.

^{7.} See my paper on 'Adam Smith on Value', The Indian Economic Review, August 1960, pp. 114-15.

labourers may be said to be an extension of this notion to cover the possibility of labour earning more than minimum subsistence and being able to save. The distribution of income into profits and wages is thus recognised as much by the modern economists as it would be by Marx as a significant element determining the rate of economic growth.

The modern procedure of analysis in terms of sectoral distribution of resources is an elaboration of Marx's models of simple reproduction and extended reproduction. Marx divides the economy into two sectors—investment goods and consumption goods. His scheme of extended reproduction is a representation of the process of diversion of resources from the consumption goods sector to the investment goods sector. This also is the basis of the modern theory of economic development. One may find it more convenient for growth analysis to have a few more sectors, such as wage goods, luxury goods and perhaps also raw materials. One can construct multisector models, too, as some of our modern growth theorists are doing. But whatever may be the aesthetic value of these models, the significant elements in the theory of economic growth can surely be shown on the bisector model of Marx, as sharpened in recent years by Feldman and Mahalanobis.

One of the most important developments in modern economic theory that bears affinity to the Marxian system is the shift away from demand to technical ratios. We no longer consider demand analysis, as based on substitution between goods, as an indispensable tool of economic analysis. The modern linear theory dispenses with all the rigmarole that is associated with marginal rates of substitution and concentrates on consistency relationships as representing the equilibrium of a system. Accumulation and technological possibilities are replacing 'consumers' sovereignty' as the mainspring of economic activity, in very much the same way as Marx would have it.

Above all, to turn nearer home, the economics of underdeveloped countries owes the concepts of 'disguised unemployment' and 'unlimited supply of labour' very largely to Marx's teachings. Also the concept of 'saving potential' which, thanks to Ragnar Nurkse, has played such an important part in the theory of economic development of underdeveloped countries clearly takes its clue from Marx's theory of primary accumulation.⁸ No wonder that the principle of planning for economic development in underdeveloped countries has derived more from Karl Marx than from Keynes or the neoclassicals.

IV

SEVEN YEARS AGO, in anticipation of the centenary of Das Kapital, I had occasion to observe that the advent of neoclassical marginalist theory was an attempt at an escape from the unpleasant predicament suggested by Marx's economics of class conflict.9 I feel tempted to supplement my remark this time, on the occasion of the centenary, by suggesting that the modern theory of growth, as it is still in the process of development, is a response to the challenge thrown up by Karl Marx by his prognosis of capitalism in terms of a tendency to a falling rate of profit.

The theory of economic growth is a theory essentially of an interaction between the growth of capital and the growth of population. The formation of capital is due to the creation of surplus over current consumption. If the rate at which the surplus increases lags behind the rate of population growth, a shortage of capital per head of labour ensues which brings down wages. And since there is a physiological limit below which

^{8. &#}x27;Although the number of the tillers of the soil was decreased, the land produced as much fruit as before... When, therefore, part of the rural population was set free from the land, the means of subsistence with which they had been nourished as landworkers were likewise set free. Such means of subsistence were transformed into the material elements of variable capital.' Karl Marx: Capital (Everyman's Library), p. 826.

^{9. &#}x27;Tendencies in Economic Theory', The Indian Economic Journal, Vol. VIII, No. III, January 1961 (reprinted in Planning and Economic Growth, ondon, 1965), passim.

wages cannot fall, unemployment may turn out to be a chronic phenomenon if this shortage of capital persists. This is the kind of phenomenon that an underdeveloped economy experiences. If, however, the economy succeeds in getting over this state of stagnation and in bringing the rate of capital formation into line with the growth of population, then we can surely envisage a situation in which there is a constant rate of growth at full employment, with the rate of profits as well as the rate of wages constant.

Now, how long can this continue? Marx's answer is that, with innovations implicit in capital formation, capitalists are in a position to increase the rate of profits, keeping down the rate of wages for a time. But with an increase in profits and hence an acceleration in the rate of capital formation, wages tend to rise, even though the ratio between total profits and total wages remains the same. In the long run, therefore, the ratio of total profits to total capital which is increasing disproportionately will tend to fall. No help, let us remember, is taken here from the possibility of diminishing returns associated with land, as did Ricardo. Modern theory, too, dismisses Ricardian diminishing returns. Yet, it does see the possibility of the maintenance of profits and hence of growth. Steady growth, or a uniformly progressive economy, is the resultant of a uniform growth of capital and labour, leaving out innovation or assuming neutral inventions. If there is maladjustment between the growth of capital and the growth of population, it should tend to correct itself, if certain rather easy conditions are satisfied. Supposing, to take one of the simplest of modern growth models, that the marginal propensity to save out of profits is greater than the marginal propensity to save out of wages, then oscillations round the steady growth path cannot go far. For, if the growth of capital exceeds the growth of labour, profits tend to decline and wages tend to rise. This itself reduces the average rate of savings and brings back the growth of capital into line with the growth of population. And vice versa, when the growth of labour force exceeds the growth of capital.10

Time is not yet for us to judge which of these prognostications is more realistic. It is yet premature to say by reference to the so-called mature economies that Marx's theory has been tested and found invalid. If our mature economies have succeeded in maintaining the level of profits in spite of a disproportionately high rate of accumulation all these years, the phenomenon cannot be explained independently of exogenous forces. Wars, for example, are a great killer of capital and fear of war a great steriliser of capital.¹¹ Further, mature economics do not operate within a closed field; surrounding them are the vast markets of underdeveloped countries ready for the absorption of their surplus capital. The world, taken as a whole, is still immature, and it will, one is afraid, take a long, long time for it to cease to be so.

^{10.} See, for certain variants of the steady growth theory, F. H. Hahn and R.C.O. Matthews: 'The Theory of Economic Growth: A Survey' in Surveys of Economic Theory (London & New York, 1965), Vol. II.

^{11.} Wars kill men, too. Yet, the loss of men that they entail, one does hope, tends to be smaller relatively to the destruction of capital.

Material Background of the Origin of Buddhism

R. S. SHARMA

BUDDHISM AROSE AND flourished in eastern UP and Bihar, in the kingdoms of Magadha and Kosala. The Buddha spent most of his time in Bihar, and after his death the three councils were held successively at Rajgir, Vaisali (Basarh in Muzaffarpur district), and Pataliputra. Why is it that northeastern India became the cradle of Buddhism in the sixth century BC? It is held that heterodox sects arose as a reaction to the ritual-ridden religion of the Vedic people. But the real key to the understanding of the rise of new religious movements lies in certain significant developments in the material life of the people.

The one single factor that transformed the material life of the people around 700 BC in eastern UP and Bihar was the beginning of the use of iron. With the advent of this metal from 1000 BC, as evidenced by excavations at Atiranjikhera in Eta district, plough agriculture, possibly with iron ploughshare, began in western UP. As the Aryan settlers advanced farther they diffused this knowledge in eastern UP and Bihar, where iron objects are not older than 700 BC. The use of iron implements led to the foundation of large-scale settlements

and introduced new agricultural techniques, but the existing material make-up of eastern UP and Bihar did not favour these developments. Much preparatory work had to be done for the adoption of the new ways of agriculture by primitive peoples, who lived in sparsely inhabited upland areas and practised hoe agriculture.

We can visualise the confrontation between the material culture of the east based on the use of polished tools and weapons of stone and that of the iron-using people. The neolithic people of the east—aborigines and non-Aryans—cultivated small patches of land in the upland regions by burning the forest and then cutting the trees. Their hoe and dibbling stick enabled them to produce rice and small millets, all without the help of bullocks, cowdung, carts, etc. In other words their agriculture was not bound up with animal husbandry. They domesticated cattle not for dairy produce and agriculture but for non-vegetarian food, as is even now done by the Nagesias in Palamau. The Rig Veda (III.53.14) denounces the Kikatas, a non-Aryan people living in Magadha, for keeping cattle. It states that they have no real use for it because they do not use its dairy products and do not offer these to the gods in the sacrifices. Hence the indigenous peoples living in north-eastern India slaughtered cattle for food.

In the land of Kuru and Panchala, in western UP, cattle wealth was being decimated by slaughter in sacrifices, which were probably refined and sophisticated methods to meet dietary needs in the pre-field agriculture stage. But once sanctioned by religion they became a senseless source of the destruction of cattle wealth and consequently an impediment to the progress of agriculture. Cattle had to be sacrificed on numerous occasions, and in the asvamedha sacrifice as many as 600 bulls were killed. The horse-sacrifice may not have been a frequent phenomenon, but cows were killed in several other sacrifices which were common and less expensive. It had to be sacrificed in the fire-laying (agnadheya) ceremony which must precede all public cults. Most authorities consider

the flesh of certain animals to be pleasing to the manes, and beef is thought to be a delicacy for a distinguished guest who is known as a killer of the cows (goghna). The Vedic practice is supported by excavations, for animal bones from Atiranjikhera are largely those of cattle. They bear clear-cut marks and mostly antedate 500 BC. The Vedic religious ideology therefore did not suit the new plough agriculture mainly dependent on animal husbandry. Thus both the pre-Aryan and Aryan practice provided for the killing of cattle, which had to be now preserved to meet the needs of iron-plough agriculture.

The Buddhist emphasis on non-injury to animals assumes a new significance in the context of the needs of new agriculture. The Pali canons do not stress so much the need for non-violence towards men as towards animals. The earliest Buddhist text, the Sutta-nipata (verses 296-97, cf. 309), states that cattle should be protected because they are the givers of food, beauty and happiness (annada, vannada and sukhada). This was certainly a revolutionary teaching at a time when the non-Aryans slaughtered cattle for food and the Aryans for religion.

The new agriculture led to the production of surplus on a scale which could not be attained with stone or copper implements. This prepared the ground for the rise of urban settlements in north-eastern India around 600 BC. The Pali texts speak of twenty towns, six of them being associated with the death of the Buddha. And we have solid archaeological evidence to prove the existence of Kausambi (near Allahabad), Varanasi, Vaisali and Rajagriha in the age of the Buddha, although Sravasti (Sahet-Mahet on the boundary line of Gonda and Bahraich districts in UP), the scene of the Buddha's activities in literary sources, does not seem to be earlier than the third century BC. Some other sixth century urban settlements such as Chirand in the district of Chapra in Bihar cannot be identified in the early Pali texts. Obviously artisans and

^{1.} For references see S. C. Banerjee, Dharma-Sutras (Calcutta, 1962), p. 139.

traders, called setthis, accounted for a good proportion of the city population and were engaged in trade and industry. Trade was facilitated by the use of punch-marked coins which are stratigraphically ascribed to the fifth century BC and may have appeared earlier. Although certain terms in the later Vedic literature are interpreted to suggest the use of coin, actual coins are not found before the age of the Buddha. A new kind of pottery, called North Black Polished Ware, which could be used for carrying, storing and preserving goods, first appeared in this period and may have helped trade.

The brahmanical attitude towards trade was not helpful. The earliest law-books prescribe trade and agriculture for the vaisyas but assign them the third place in society, the first two places being reserved for the brahmanas and kshatriyas. In times of distress the brahmanas are permitted to trade, but this is of a limited nature. They cannot trade in men, liquids, perfumes, cloth, leather, foodgrains, etc.² Apparently the traders who dealt in these commodities were looked down upon in brahmanical society. The inhabitants of Bihar-Magadha and Anga—were held in contempt because they traded in certain articles. Baudhayana, an early lawgiver, ascribes mixed origin to the people of Anga and Magadha and also of some other outlying areas on the fringe of the Arvandom at the end of the later Vedic period and declares them to be guilty of drinking liquor, trading in wool, in animals like the horse, and in arms, and of going to sea. Anthropologists attribute the art of coastal navigation to the Dravidians, but sea voyage (samudra-samyana) is condemned as a sinful practice by Baudhayana.3 In contrast to this the early Buddhist texts record several instances of sea voyage with a sense of approval. The liberal donations of Anathapindika and other lay merchant millionaires to the Buddha and his order can be better appreciated if we bear in mind the brahmanical attitude to trade.

^{2.} S. C. Banerjee, op. cit., pp. 158, 182.

^{3.} S. C. Banerjee, op. cit., p. 185.

Trade involved the use of money, which led to moneylending and usury. But the existing social ideology did not favour lending at interest. An early lawgiver, Apastamba, lays down that the brahmanas should not accept the food of the person who charges interest (vardhushikah) and of those who live on the labour of persons held as mortgage, presumably in return for interest on the loan. The same authority lays down expiation for those brahmanas who go to bed with a non-Aryan woman and approach a person who lends money at interest or drinks liquor.

It is significant that moneylending and slave-keeping are not condemned in Buddhist texts. On the other hand the Buddha advises the householder to repay his debts and does not admit a debtor to the Samgha. An early book of Buddhist canons, the Digha Nikaya, states that paying off debts brings a sense of great relief, and it does not worry a person when he is eating or doing other things. The Buddhist canons define right livelihood (samma ajiva) and right action (samma kammanta) by prescribing a number of don'ts, but the list does not include usury. It is well known that Gautama Buddha had intimate relations with the setthis, who practised moneylending. Thus Buddhism gave implicit support and indirect encouragement to usury which was condemned by the brahmanical law-books.

The urban setting in the age of the Buddha gave rise to certain features of town life which did not find favour with the brahmanical society. Eating houses, a common trait of town life, were not considered to be desirable. People of higher classes (most probably brahmanas) are advised by Apastamba not to take food prepared in shops, although some items are given as exceptions; this shows some prejudice against the new shopping class and its practice in urban settlements in general. But the Buddhist texts do not exhibit such an attitude.

^{4.} Digha Nikaya, ii, 39.16; Majjima Nikaya, ii, 105.16.

^{5.} Walpola Rahul, What the Buddha Taught (New York, 1962), p. 47.

The urban surroundings and break-up of the old tribal family created a class of alienated women who took to prostitution as a source of livelihood. Early Pali texts refer to prostitutes living in towns. Vaisali became famous through Amrapali, who charged fifty kahapanas a night from her patrons. This prompted Bimbisara, king of Magadha and contemporary of the Buddha, to get a courtesan for his own city of Rajagriha. But prostitution was held in contempt by the brahmanical lawgivers. According to Baudhayana the food offered by a prostitute (ganika) is forbidden, and the lawgiver Gautama (XVII.17) asks a brahmana not to take food offered by a prostitute or unchaste woman. This may be contrasted with the Buddha's attitude towards Amrapali, with whom he stayed. Women are admitted in the Order, and there is no bar against prostitutes. So prostitution, characteristic of urban society, is tolerated by Buddhists but not by brahmanas.

The use of iron weapons revolutionised the military equipment of the ruling class and added to the political importance of warriors in contrast to that of priests. They naturally claimed a position of equality in other fields. The conflict between the interests of brahmanas and kshatriyas is evident in many texts. This partly explains the kshatriya origin of Gautama and Mahavira, and also the fact that from the beginning the Buddhist texts accord the first place to the kshatrivas and the second to the brahmanas. The kshatriya rulers could be maintained only by regular payment of taxes. Both the Buddhist and brahmanical texts of the age of the Buddha justify the royal share of the peasant's produce on the ground that the king gives protection to the people. But the Buddhist canonical text Digha Nikaya seems to have been the earliest Indian source to give a reasoned justification of the origin of the kshatriya ruling class by painting in detail a state of misery brought to an end through the establishment of the kshatriya rule. The kshatriya is clearly stated to be the protector of fields which were occupied by individuals in northeastern India in the age of the Buddha. Ability to pay taxes is considered by the Buddha as one of the five fruits of wealth,6 and is meant to serve the new political order based on regular taxes.

The new agriculture, trade, and the advent of coins naturally enabled both rulers and traders to accumulate wealth and gave rise to economic inequalities. Persons possessing eighty koti of wealth are frequently mentioned in the Buddhist birth-stories. Buddhism suggests some remedy peverty. In the Digha Nikaya a prince is advised not to appropriate something which is not given to him. It is said in this text that if the poor are not able to produce wealth, it leads to poverty, which is at the root of immorality, theft, falsehood, violence, hatred, cruelty, etc. To eradicate such crimes the Buddha advises that farmers should be provided with grain and other facilities, traders with capital, and labourers with adequate wages. These measures are recommended by the Buddha for removing poverty in this world. In the next world :also prospects are held for the poor. It is said that if the poor give alms to the monks they are born wealthy.7

Finally, we might consider the code of conduct prescribed for monks and their lay followers. Rules were laid down to regulate the conduct of individual monks as well as their collective functioning in the Samgha. This code seems to have been determined by the material background during the sixth-fifth centuries BC in north-eastern India. The code imposed restrictions on the dress, food, housing and sexual behaviour of the monks. Their personal property was confined to robes, bowl, bed and medicine. Like the Spartan citizens they could not accept gold and silver in transactions and, like brahmanas, could not take to buying and selling. These rules were relaxed later a century after the death of the Buddha, but the early rules envisage a kind of primitive communism based on low standards of pre-field agriculture, and of pre-trade, tribal life.

^{6.} S. V. Anathapindika, Dictionary of Pali Proper Names, i, p. 70.

^{7.} These passages have been quoted in W. Rahul, op. cit., pp. 81-82.

The code of conduct for monks reflects to some extent a reaction against the new elements in material life such as the use of money, private property, better standards of living, etc. In terms of those days these would be regarded as luxuries. But some rules for the Order clearly accepted the new position, in which debtors and slaves could not run away from their obligations, animals could no longer be killed indiscriminately, and private property could not be appropriated without permission.

The rules and teachings meant for the laity took full account of the new changes, and ideologically strengthened them. And since the teachings were propagated by puritan monks they made a greater impact on the common people. The day-to-day puritan conduct of the monks would certainly appeal to lay followers, who could easily see the sharp contrast between it and the greedy life of the brahmanas. So, although the code of conduct prescribed for the monks is different from that meant for lay men, the two together basically serve the same purpose, stabilising and promoting the new elements in the material life of people in north-eastern India during the sixth and fifth centuries BC.

Undoubtedly the objective of the Buddha's teachings was to secure the salvation (nirvana) of the individual. Accustomed to the old ways of life some individuals found it difficult to adjust themselves to the break-up of old tribal society caused by new material conditions which gave rise to gross social inequalities. For them permanent escape was suggested a way out of this state of misery. But this was meant mainly for monks, not for the lay followers of Buddhism. Whatever may have been the ultimate objectives of Buddhism, ordinary people, whose support really mattered to the new religion, were certainly attracted towards it because of its successful response to the challenge posed by the social developments generated by the material conditions created by the use of iron, plough agriculture, and coins and by the rise of towns in eastern UP and Bihar.

Das Kapital : Its Universals and Particulars

ASOK SEN

MARX MADE IT perfectly clear that his analysis of the genesis and development of capitalism in western Europe must not be metamorphosed into the construction of a general path destined by history for every people irrespective of their circumstances. Those observations of Marx on the use of science in history are extremely pertinent to our understanding of the context and the content of Das Kapital. Further, the logic of his method makes it essential for every serious student of Marx to discern the universal from the particular in the first volume of Das Kapital.

The universal element is revealed in the vital bearings that Das Kapital has on the crystallisation of the general dialectics of social change. It was in the famous preface to his Critique of Political Economy that Marx made the first systematic statement about the materialist dialectics of human history. The next stage in the development of Marx's thought followed from his ceaseless concern for the study of the present as history, from his supreme commitment to fulfil the science of

^{1.} Marx-Engels Correspondence, Letter No. 167.

history in the art of ending all exploitation of man by man, to eliminate all the anomalies of the rational and the real, as one might proclaim in typical young-Hegelian moral fervour. Indeed, the human commitment to realise a society free from class exploitation is writ all over Das Kapital and led Marx to reckon with the numeraire for social justice in an appraisal of units of paid and unpaid labour sanctioned by a particular mode of production. This is the total purport of what was achieved in Marx's Labour Theory of Value, in its significant coherence of moral indignation, economic analysis, and historical evidence.

In Marx's world, science had already assumed the role of furnishing the structural foundations of the industrial revolution in west Europe. But the outlook for consciousness in the realm of what Marx and Engels used to call the superstructure of social existence was still subject to pre-scientific constraints. The categories of liberty, fraternity and equality, though of immense importance in transforming the old world, were still lacking in a valid frame of scientific appraisal. Despite all their noble intentions to evolve a science of society, the philosophers of the 'natural order' could not do without so many utopian presuppositions of good and evil bereft of objective historical content. The socialist forerunners of Marx also bore evidence to similar limitations.

And so in his conceptualisation of the economic reality of capitalism, Marx braced the objective of integrating the economic man with his whole life-process and the total human situation comprising the various levels of thought and existence. This would do away with the need to conjure up fanciful states of savage nobility or brutish solitude for an ideological absorption of creative human engagement in changing history. The role and influence of the superstructure, those significant transmutations of 'false' consciousness, would then come to be realised through the unceasing dialectics of material being, thought and value-judgement, in the maturity of man's own self-consciousness, that has no more heroic example

than Marx's own lifelong struggle against all that was humanly evil in his world.

The labour principle rendered quantitative precision to the economic isolate in Marx's system and enabled him to explain the rate of exchange between commodities. But that was not all. The same principle yielded a measurable factor in the reckoning of the basic elements of social movements and thereby furnished, as it were, the numeraire or unit of account for the appraisal of the human situation in its entirety. Here we find Marx come to grips with the task of evolving a science of freedom and justice, to demonstrate that the bases of truth at the level of morality and humanism would admit as well of objective enumeration necessary for their full scientific appraisal. Indeed, Marx's concern for the measurable criterion of human values may be considered to have a close parallel in what symbolism tried to achieve in the search for units of beauty amenable to pure poetic perception.

The labour principle, as used by Marx, provided the basis for an objective unit of reckoning progress, and together with the concepts of variable social existence forms of labour and modes of surplus appropriation, it made of freedom and justice concrete historical phenomena no longer left to the world of interpretation abounding in subterfuges of evasive idealism. In his conception of freedom and justice, Marx arrives at the point of integrating the absolute and the relative terms of the cause he is concerned with, of harmonising the experience of history with the material binding of its specific stages and also with the ideal needs of the promise of evolution, the achievement of a classless human society, which only can look forward into the next stage of man's future.

That promise of evolution does not pry for teleological sanctions, which have no relevance to the Marxian interpretation of history. Progress is objectively definable. It is possible and necessary. So is history. To realise the former, men have to know the laws of the latter and put that knowledge to good effect by acting consciously for what is attainable in

history. Marx's model of history admits of conscious human action as one crucial action parameter of the system. And although Marx brings to his treatment of the superstructure the same scientific method and objective which he applies for analysing the economic bases of society, the totality of his explorations places the argument much beyond the limits of what is merely discursive.

Here we obtain a full measure of Marx's acute feeling for the Whole Man and the state of his alienation in class society, of his terrific rage at the misery of the exploited under capitalism, of his abhorrence of the moral and human failure of bourgeois society, and, above all, of his supreme confidence in the potentiality of man to make a better world, in the historical triumph of the laws of beauty over that of commodity fetishism. All this is cast in terms of the science of history and in a style that, by virtue of its facility to comprehend multiplex relations of the base and the superstructure. converges inexorably to the symbolic consummation of Marx's total view of the present human state and of his vision of wholeness as regards the future of man. And this illumination of the historic path of the struggle for human wholeness is the most notable element of universal significance in the first volume of Das Kapital.

But the particular frame of reference is no less pertinent to our appreciation of the first volume. It contained the investigation of the economic laws of motion of modern society at the stage of industrial capitalism. England was the first country to attain the classical and the most finished form of capitalist development. This was manifested in her pioneering bourgeois revolution of European importance and in her earliest completion of an agrarian and industrial revolution. There emerged the system that marked out the present in history most decisively from the past, by bringing to existence the mode of production based on capital-labour relationship and an unprecedented expansion of productive powers of social labour. Marx made the materialist conception of history

face up to the challenge of interpreting this immediate history of his times. It was primarily from the English experience that Marx obtained the illustrations of the laws in the first volume. Those laws affirmed the reality of capitalism as an existing state of society and also comprehended the negation of that system in the dynamics of history.

The particularity of the scope of analysis in the first volume arises from the nature of the specific problem Marx had chosen as the centre of his investigation. The whole of that magnificent volume gives us a logical elaboration of capital-labour relation at a level of abstraction and in analytical forms that can best crystallise the significant structural characteristics and tendencies of the capitalist system. Hence, the validity of the laws enunciated therein is inseparably connected with the level of abstraction on which they are discovered. At the same time, we must recognise that Marx was not at all concerned with a purely logical process. He had found it useful for creative thought to have that logical explanatory model of capitalism. It enabled him to select certain aspects of the capitalist reality for more intensive investigation. The chief object of Marx's method of abstraction was to grapple with the historic contradictions of capitalism in their most crucial relevance to the crisis and abolition of that system.

The controversies on the validity of Marx's formulations as regards the nature and development of capitalism tend to become puerile unless the contending parties reckon with the level of abstraction, and its particular level of analytical sufficiency, in the first volume. For example, Marx's law of the increasing misery of the proletariat was elaborated on premises that did not admit of full effects of trade union bargaining on the one hand and international exploits of finance capital on the other. Hence, an appraisal of Marx's law can have very little analytical significance if it rests upon empirical evidence subsuming the decisive roles of trade unions and modern imperialism. The truth of the relations in a scientific model is hardly ever affected by their variance to changes in initial

conditions. Moreover, Marx's level of abstraction had its supreme relevance to the mid-nineteenth century conditions of the English working class, to their overriding task of confronting the satanic wheels of triumphant capitalism.

We find similar confusion in some of the assessments made of the predictive value of Marx's theory of crisis. Thisquestion has gained in prominence due to the experience of what is glibly characterised as crisis-free capitalism after the Second World War. The veracity of this image of post-war capitalism is taken to obtain in the absence of a great crash akin to that of the thirties of this century and also in the spectacular rates of growth achieved by Japan, West Germany and Italy in recent decades. But the protagonists of crisis-free capitalism do not take due cognisance of some crucial factors in their refutal of Marx's theory in the light of the post-war capitalist performance. Again, this failure of cognition is related to an utter confusion of the scope and level of analytical abstraction in the first volume, in Marx's statement of the General Law and Historical Tendency of Capitalist Accumulation.

In his theory of crisis, Marx explored the insuperable limits of private investment decisions in a system of freely competitive capitalism. And so his formulations in this regard were not meant to fit in precisely either with the working of capitalism at its monopoly stage, or with what is known, in post-Keynesian vocabulary, as 'mixed economy' after the end of laissez-faire. Indeed, the so-called freedom of capitalism from crisis in the period since the end of the Second World War has, in the main, been due to the new modes of exploitation inherent in oligopolistic integration of the market, to the politics and economics of neocolonial rampage in the poor countries of the world and to the programmes of compensatory public expenditure that has increasingly become a regular instrument of post-Keynesian fiscal policy of capitalist governments. Even then, the basic laws of capitalist accumulation and crisis, as formulated by Marx, and supplemented, of course, by oligopolistic control over price mechanism, have come to assert themselves almost perennially in the recurrent recessions of the American economy, in the persistence of considerable unemployment at the peak of each cyclical boom, in the squabbles over common and exclusive markets, and most of all, in the economic implications of the strategy of continuous cold war or that of an actual aggression like what is now being perpetrated on Vietnam.

We should note here that Keynesian economics made capitalism self-conscious in regard to its contingent viability, to the need of state intervention for the maintenance of an adequate level of aggregate demand. The post-war performance of capitalism shows how in that system the full employment level of aggregate expenditure can only be maintained falteringly and that also at the cost of gross misallocation of resources in terms of opportunities lost for attainable human welfare. As an illustration, let us cite this succinct statement by Baran.²

To the present and future of the American people (and of the world as a whole) it matters a great deal that (in 1956) \$ 42 billion were spent on military purposes while \$ 1.5 billion were found for economic aid to underdeveloped countries; that automobile transportation absorbed \$ 27 billion, while education (private and public) commanded \$ 15 billion; that \$ 3 billion worth of resources were used for recreation goods of all kinds, while \$ 0.6 billion were developed to books; that basic research was assigned \$ 0.5 billion, while the services of stockbrokers and investment counselors were valued at \$0.0 billion.... What is decisive is the nature of the balancing factor, the morphology of the difference between what consumption would be in a rational social order and what it is under the impact of Madison Avenue, of the value and mores of monopoly capitalism.

^{2.} Has Capitalism Changed (ed Shigeto Tsuru), p. 163.

The same issue was brought out by Tsuru³ when he commented that the 'instruments of life' realisable through an alternative use of the huge American military expenditure could certainly be bountiful. 'But the problem is how far the American government can engage in such activities within the framework of the capitalistic system.'

Thus, the post-Keynesian mask cannot conceal the extent and the depth of the crisis of contemporary capitalism, and it is only to dignify the failure of the system that one can call it a state of built-in stability under controlled capitalism. It seems fitting, however, to appreciate the need for fuller understanding of some new dimensions of this crisis. Those dimensions, as pointed out in the above excerpts from Baran and Tsuru, relate to the enormous waste of resources in an affluent capitalist economy. As things are, a decline in wasteful expenditure would result in inadequate offsets to saving and thereby lead to acute depression. In his reflections on the prodigality of capital's expenses for representation. Marx focussed upon the roots of this problem. But its manifold aspects were not quite real in Marx's immediate context, nor would they be theoretically relevant to the particular frame of competitive capitalism. There lies the need to derive the laws of motion of capitalism at its monopoly stage when the market mechanism comes to admit of profit on alienation together with direct exploitation of labour, the latter being the hallmark of industrial capitalism in Marx's periodisation of history. We must emphasise that this admixture of industrial and nonindustrial (profits from circulation) forms of accumulation gives rise to the major characteristics of contemporary capitalism, as revealed in the institutionalisation of colossal amounts of private and public waste.

This does not mean that Marx's estimate of capitalism has to be revised in any fundamental respect. Indeed, the new model, one can conceive of, will have most of its basic

^{3.} Ibid., p. 37.

conceptual materials from the third volume of Das Kapital, in those incomplete, but singularly profound, analyses about the jostling of industrial, commercial and financial forms of capitalist accumulation. Creative Marxism of our own period must grapple with the issues of crucial importance for the problem of the present and its relation to the future. Moreover, the problem of institutionalised waste acquires great significance in the true tradition of Marxism, because it is not merely a question of more adequate theoretical interpretation of contemporary capitalism, but also of the vital bearings such an interpretation can have on the strategy and perspective of the proletarian struggle for socialism.

Fundamentally, that new perspective has already been opened up in the possibility of peaceful transition to socialism. The struggle for peace, in the present-day context, can be a decisive instrument of class-war. It is directed against the largest component of wasteful expenditure that accounts for the survival of moribund capitalism. In the nonmilitary sphere, the items of waste go on proliferating in the giant apparatus for distribution and selling commodities, in the elaborate paraphernalia of publicity and public relations that strive desperately to get through the crisis of realisation, by hypnotising consumers with the wiles of commodity fetishism. Again, the instrument of trade union bargaining is turned into a misnomer by the sham monetary benefits which the big capitalists concede to workers and which they make up through their oligopolistic administration of the price mechanism. Thus, the development of a large nonproductive sphere is used in consonance with the mechanism of inflation to postpone the coming of an open crisis. All this has the double purpose of staving off more overt explosions of the capitalist crisis and of pulling back the workers from developing in an anticapitalist direction. Time and again, such tactics on the part of big business have put the working class movement in doldrums, at least temporarily. The experience of the trade sunions in America can be cited as a vivid illustration of this

phenomenon.

Hence, in this context, the proletarian programme for classwar has to comprehend all the new modes and instruments of exploitation unleashed by monopoly capitalism. To be effective. the strategy of transition has to go in for a relentless struggleagainst the vast complex of institutionalised waste and the multifold modes of monopoly capitalism. Therein lies the scope and possibility of the largest mobilisation of the people under capitalism against the total crisis of that system, against all the economic, political and cultural consequences of the general crisis and its system of waste, against the widespread schizophrenia of affluent capitalism and, what is most important. against the danger of a nuclear war. The path of peaceful transition is indissolubly associated with the realisation of such a popular front. The programme for that front calls for fuller Marxian understanding of contemporary capitalism. This is: where the need for creative Marxism to go beyond the particular frame of the first volume has become most imperative.

Turning now to the case of underdeveloped countries, the foremost importance of the revolutionary initiative against imperialism should be obvious from what has been said above on the strategy and tactics of contemporary capitalism. The challenge of the socialist system adds new dimensions to the international strength of the proletarian struggle in each capitalist country. In this context again, the democratic programmeof the working masses in each underdeveloped country has to evolve the ways and means of the largest possible mobilisation, the national democratic front, against imperialism and suche class forces within, that grow up and operate in close agreement with the interests of imperialism. There emerges the rationale for what is implied by the goal of national democracy and the path of peaceful progress in a noncapitalist political and economic environment. It devolves then on the party of the working masses to adopt and implement the programme for such a national democratic front. This brings us to thecore of the problem which has no adequate answer, if weconfine our attention to the particular frame of the first volume of Das Kapital.

The problem turns upon the question of the basic criterion for the identification and demarcation of the national bourgeoisie. This criterion needs appraisal in terms of the central task before the national democratic front, the economic aspects of which consist in fulfilling the requirements of rapid industrialisation of the country. Now, if we take the Indian example, it should be emphasised that the present stage of capitalism in the country contains an amalgam of the different modes of self-expansion of capital. But in contrast to the situation of monopoly capitalism in the advanced economies of the west, the admixture has taken place on a narrow industrial base. Here we have the structural complex of monopoly capital without the technological concomitants of mature industrialisation. And so we have to grapple again with such dimensions of class struggle that do not fit in entirely with the singular emphasis on capital-labour relationship analysed in the first volume of Das Kapital. More pertinent to this context would certainly be what Marx had to say in his preface to that volume, about his own fatherland in 1867, where 'alongside of modern evils a whole series of evils oppress us, arising from the passive survival of antiquated modes of production, with their inevitable train of social and political anachronisms.'

Indeed, the demarcation Marx made in the third volume of Das Kapital between the various modes of accumulation in the spheres of industry, commerce and finance is essential to our definition and assessment of the appropriate role of the national bourgeoisie. The fundamental difference between commercial and industrial capitalism lies in the initiative of the latter to synchronise technological advance with maximisation of profits. It was by virtue of this coincidence between growing technology and capital accumulation that the sequence of industrial development under the aegis of competitive capitalism was associated with a phase of phenomenal advance of productive forces. On the contrary, commercial or financial

accumulation rests on no such premise of technological development of the forces of production. The mechanism of mercantile or financial gains thrives upon the scope for profit on alienation inherent in monopoly control over markets. The decisive emergence of industrial capitalism in an economic system relegates merchant capital to a position of subservience. In the preindustrial stage of accumulation, commerce rules production not yet free from the constraints of feudal decay. The reverse is true of the stage of industrial capitalism.

Historically, industrial capitalism never arrived at a predominating role in the Indian economy. This has the effect of perpetuating the supremacy of private investment preferences inimical to real capital formation and economic growth. The triumph of industrialisation depends on the extent the socioeconomic structure of the feudal or agrarian society is revolutionised. India, even after two decades of political independence, has yet to carry through that revolution. What is worse, some serious gaps in the making and implementation of the ruling agrarian policy have strengthened the bases of a new kind of landlordism, whereby big landholders are enabled to practise on a large scale the functions of trade and moneylending. With the prevalence of such conditions in agriculture and in the absence of any radical redistribution of labour force from agriculture to industry, the highest profits of capitalist business are rarely found in activities which advance economic development. Monopoly capitalism in India has grown parasitically on this scheme of things where, even today, the motive of maximum profit per unit sale, and not the horizon of large profits through shifts in the technology of mass production, governs, in the main, the behaviour pattern of private enterprise.

The major problems of Indian planning during the last decade can be found in this unproductive complex of the country's capitalist sector. To take an instance of top priority, the solution of the problem of inelastic agricultural supplies, the prime-mover of inflation in our circumstances, calls for a thorough reorganisation of the relative structure of production

and distribution. The digits of that solution are, in turn, linked up with the task of eradicating a whole range of profit opportunities presently open to private business and landlordism entrenched in speculative gains of the food market. Similarly, to ensure the achievement of output targets in other spheres of production, planning has to steer clear of market imperfections and monopolistic practices.

But in the absence of such strategic measures, the pricemechanism is wide open to manipulation by speculative and oligopolistic forces which, ipso facto, remain in decisive control over the basic instrument of allocation and, in consequence, important plan-targets are precariously tossed about and quite often jettisoned in the gamut of endemic hyperinflation. This precisely has been the Indian experience. And the command of such forces over the basic instrument of allocation does at the same time leave the economy liable to be caught up in the paradox of recession amidst inflation. This process of crisis becomes almost inevitable because a cumulative series of disproportionalities and erosion of mass purchasing power is inherent in the inflationery upswing of prices and profits with no commensurate absorption of productive capacity and employment. Moreover, the absence of production-bias in the control and direction of the private sector has been plentifully stimulated in the working of even the public sector. All this has brought the Indian economy to its most serious crisis after idependence and we are today faced with the dangerous offensive of reaction to bury the very idea of economic planning.

Amidst such circumstances, the identity of the national bourgeoisie has to be established in the owning of functional responsibility for the advance of material production. The principle of property and financial status cannot, in itself, be adequate for the purpose. The hallmark of industrial capital, as spelled out by Marx in his analysis of precapitalist formations, bears upon the fact of productive orientation of capitalist enterprise. For us, it underlines the relevance of applying the functional criterion to decide upon the identity of the national

bourgeoisie in a different context of industrialisation. Historically, the developmental aspect of capitalism can be of decisive importance only when their private gains are associated with investment in the actual processes of production. To be specific, in our situation, the working peasant in agriculture, own-account artisans and craftsmen striving to attain a larger scale of production, entrepreneurs in small and medium-scale manufactures fit in with the identity of the national bourgeoisie. In general, there should be room for demarcating entrepreneurs engaged mainly in manufacturing activity from the typical Indian monopolies of a conglomerate nature, in whose business patterns nonproductive investments dominate almost always over that directed to material production.

The question of the functional criterion assumes immense significance in a flash-back perspective of early west European capitalism. Historically, industrial capitalism did not grow merely out of accumulation of wealth. The production orientation of that great change came from other sources. A class of medium and small-scale producers had to make way against the opposition of older commercial monopolies to bring about the transition to a new system of production. This implied a process of growth from below, a process initiated by suitable changes in the relations of agricultural production, that ushered in the ascent of small and medium-scale free producers.

Thus, the foundations of industrial revolution under free enterprise were laid down by a class of entrepreneurs having roots in the background of actual production, and not decisively by those engaged in pure mercantile accumulation. The classical sequence of development was amply borne out by the complementary nature of the agricultural and industrial revolutions. Indeed, the proponents of national democracy in India must be particularly concerned with the struggle against the tendency towards the other historical course of capitalist industrialisation, say the path of Germany or Japan, where the motive-force of a belated transition was more closely linked up with feudal-mercantile wealth. This other path is the antithesis of all that

is implied by national democracy and cannot but lead the country to some variant of fascism.

But this preoccupation with the different paths of capitalist development must not be construed to ordain that national democracy aims at any of these ways of industrialisation. The goal is fundamentally different. It is summed up in the enunciation of the noncapitalist mode of transformation. This mode envisages that within the framework of political democracy in a developing economy, the national democratic front can seize upon state power, through peaceful methods of popular campaign and mobilisation, and wield the same to undertake major economic decisions independent of what private profit-motive might want them to be in quantity and quality. This is the crux of what is meant by the commanding heights of the public sector that can materialise in the noncapitalist path of economic development. Such commanding heights are attained however only when the national democratic front succeeds in creating a programme which can adapt the great mass of toiling humanity to fight and work for the democratic transformation.

There lies the vital need of building the appropriate criterion for the national bourgeoisie into the programme of national democracy. Primarily, it is neither a question of collaboration with sections of the bourgeoisie and, for that matter, nor of alliance with some parties of the bourgeoisie or cross-sections thereof. The party of the working class will guide the democratic movement on the basis of the programme which will admit of only such activities on the part of the private sector that do satisfy the criterion of national identity. The point is to mobilise the vast majority of the working people behind the programme of the national democratic front so that the power and influence of capitalism diverging from national identity can be eliminated under decisive democratic pressure.

Further, the struggle against monopoly capitalism in India requires to be fought relentlessly not only on grounds of equity, which capitalists habitually deny to workers, but also in concrete reference to the problems of overall economic

efficiency and allocation of national resources. The democratic movement must expose, through continuous ideological campaign and day-to-day struggle, that to graft the image of industrialisation on Indian capitalism is an abuse of terms, that capitalism in India has never got round its primitive greed for nonproductive gains, for its El Dorado of black money and fabulous speculation. That is how the toiling masses will be able to build up the largest popular mobilisation for the cause of national democracy.

Again, the solution of the agrarian question in the interests of the working peasantry and rural labour is essential to the achievement of national democracy. Needless to assert that the agrarian programme must also take due cognisance of the production principle, in complement to the questions of equity. What is equally important, the tenets of alliance between workers and peasants must obtain actual operational significance in the movement towards national democracy. To cite an example in appreciation of this need, even amidst the most severe food crisis and inflationary pressures, the democratic movement in India has not yet assumed the dimensions of a national struggle under the leadership of the working class. Time and again, our trade unions appear to be nearly persuaded that they are getting on tolerably well with piecemeal adjustments of cash wages and dearness allowances, and would have reached their goal, if only government did take care of supplying plenty of food at low prices.

But the alphabet of Marxism teaches us not to regard the government as a deus ex machina which can serve the economy with the panacea for any ills it may get into. The forms and slogans of the democratic movement have to rest upon more objective understanding of the real relation between the economy and the state. I am not pleading to absolve the government of its responsibility in the matter. Far from it. But the demands to be realised under democratic pressure should strike at the class roots of the problem, and must not end up in mere palliatives which, in turn, bring about the vicious circle of

dearness allowances perpetually lagging behind rising prices, the draft on fiscal resources of the state to alleviate the effects of the basic failure to organise agricultural production and distribution, and worst of all, the increasing dependence on PL-480 imports with all their political strings.

Herein lies the enormous priority of nationwide democratic campaign against the whole complex of nonproductive accumulation in all spheres of the Indian economy. The leaders of the Indian working class, who know their Marx and Lenin, must be aware that economism of the trade unions never found support with the founders of scientific socialism. Nor was the first volume of Das Kapital ever meant merely to ring up emotional overtones for wage-bargains bereft of complete consciousness of the class that leads the next step forward in human history. Indeed, nothing is more alien to the cause of socialism than the erosion of that basic historical character of the working class, whether such erosion goes with hypnotised consumership under capitalistic affluence, or with the dissociation of the policies and economics of the working class in a poor country from the central tasks of national existence and development, particularly when that nation has already been forced by ruthless foreign and indigenous exploitation to sprawl for centuries between an uprooted present and an unrealised future. Moreover, the task of the Indian working class is perhaps even more arduous, because they will have to get together and give lead to the multiplicity of precapitalist forms of labour which still constitute the majority of the country's toiling masses. And so creative Marxism in India must come to grapple with the full dimensions of that leadership. It is only by owning and carrying out this responsibility that the national democratic front can come to realise what was once meant as the completion of the democratic revolution under the leadership of the working class, or what, in a somewhat different context, is now put forward as the noncapitalist path of national democratic transformation.

In the foregoing pages, I have dwelt on the need for creative Marxism of today to proceed beyond some of the limits of particularity in the first volume of Das Kapital. Nothing appears to be more in keeping to the true tradition of the author of Das Kapital. It is not merely in the nature of the isolate chosen for the first volume of Das Kapital, not merely in the elaboration of the laws peculiar to capitalism at a particular stage, but in the elevation of that analysis to the universal significance of ending all exploitation of man by man, that Marx created the greatest book for the cause of toiling humanity. That universal import of Das Kapital calls us up to the understanding of the present in history in its relation to the future.

This is the primary commitment of Marxism. And, I am certain, Marx brings up this supreme task of human consciousness engaged in the making of history, when he writes:

Thus events strikingly analogous but taking place in different historical surroundings led to totally different results. By studying each of these forms of evolution separately and then comparing them one can easily find the clue to this phenomenon, but one will never arrive there by the universal passport of a general historico-philosophical theory, the supreme virtue of which consists in being super-historical.4

^{4.} Marx-Engels Correspondence, Letter No. 167.

Self-Awareness in Science

SCIENTIST

THE GROWTH OF THE SCIENTIFIC method and its extension to different fields would be a fascinating study by itself. It is curious, however, to note that while the scientific study of nature has taken tremendous strides, over the last few centuries since the time of Galileo, its application to social phenomena has had a retarded growth. The latter is rather surprising as in the 17th, 18th and even the 19th century quite a few efforts were made to apply the scientific methods to social phenomena, with considerable results and promise of still more. Amongst those who had made such contributions Mary was the most outstanding. His contribution was significant from two aspects —use of the scientific method in the study of society and the role of science and technology in social and economic change. The major difference between him and his contemporaries lay in putting both aspects of study in the perspective of history, in other words, giving a time scale to processes and relationships.

It would be worth while to know the impact of this approach, on the study of the growth and organisation of science on the one hand and the benefits which could accrue from such a study towards better and more efficient utilisation of science in social and economic development on the other.

We all know, for instance, what science is. It is what we do

in the laboratories, but when it comes to defining it we know the difficulties with which we are faced. It would not be wrong to say that each scientist, who has attempted to define science, has done so in his own way—some have emphasised the process of acquiring knowledge, others the logical and philosophical aspects, while some others the end product, or its relationship with the use to which it has been put. An interesting point of these definitions is that they have been different in different periods of history and level of development of science. Does it mean that the nature and character of science have been changing with times and in consonance with the level of its development? If it is so, then it would be worth studying as to what has been changing—whether it has been the content, structure or concepts, and the factors responsible for the change—whether these are internal to science or external or both.

Agassi¹ recently, discussing the nature of continuity or discontinuity in science, has put forth the views of three thinkers on the subject:

- Bacon Science is born out of revolution against prejudice and superstition but within science everything is securely founded.
- Duhem Every achievement of science is capable of improvement but not of overthrow.
- Popper Unless a scientific theory is overthrown by empirical evidence it is unscientific and vice-versa.

It is interesting to note, a point which Agassi overlooks, that these three views belong to three different periods. While Bacon represents the beginnings of science, the view of Popper is that of the twentieth century. Placing these views in their historical perspective, it is easy to appreciate why these thinkers should think of science as such. The savants of science made the major break with the medieval outlook to mark the beginnings of science, it was followed by the slow accumulation of data which continued to refine the general picture, till the picture which

^{1.} J. Agassi, Organon 3 (1966), pp. 47-61.

was built around the first generalisations was no longer tenable and had to be revised.

This raises two interesting points. The first deals with the validation of Marx's hypothesis of theory, viz. quantitative change leading to qualitative change—the accumulation of data over years leading to changes in theories.

Secondly, the rate of change in scientific theories. To begin with the 'life' of scientific theories was rather long, but with the passage of time this 'life' has become shorter and shorter, till we reach a stage when Popper is able to assert that a scientific theory is one which is capable of being overthrown. The question which necessarily arises is: what are the factors affecting the rate of change. Is it a function of the number of men involved or the investment in science or is it a part of the evolution of science and as a result of the stage of development? Further, what picture of science would emerge if this trend would be projected to forecast future developments?

It may be worth recalling here what Engels had said about the exponential growth of science. According to him, science developes proportionally to the square of the time from its initial point. The recent studies of Derek Solla Price have further refined and developed this generalisation. According to Solla Price, scientific activity, as judged by number of men involved, by the number of publications in a field, investment in research, etc. doubles up in a certain fixed period. Further, this period of doubling is different for early starters in science, i.e. the so-called advanced countries and the later starters, i.e. the developing countries. His hypothesis raises the question of the levelling off after the saturation point is reached and consequent question of the deployment of resources and the results attained.

These questions and problems raise a series of other questions, which have been admirably pointed out by Bernal and Mackay,² in discussing the new branch of science—the Science

^{2.} J. D. Bernal and Alan Mackay, Organon 3 (1966), pp. 9-17.

of Science—i.e. the study of the growth and organisation of science and the factors involved, aiming at studying how science and scientist work, how science could be utilised for the benefit of humanity. Study of questions like these requires a wider extension of science, including economics, sociology and psychology on the one hand and newer branches of science like operational research, systems analysis, etc. on the other.

Two areas of study have been thrown up as a result of the cumulative growth of science and the increasing attention being given to science in our own times. Firstly, study of science itself aiming at discovering regularities, finding out laws of scientific growth, the mechanisms which give rise to the regularities, etc. These studies are, primarily, statistical in character. The second area of study arises out of the increased investment in research and development leading to the different growth rates in different branches of science, training programmes, etc. the impact of imbalance on science as a whole, the gaps which exist between different branches of science, between science in one country and another and the impact of all these on the increase in production and the solution of problems facing humanity.

Both these areas of study are the development of the early contributions made by both Marx and Engels, not only in the wider social field but specifically in terms of science and its relationship with society.

Both these areas of study are significant if one is to understand what science is and whither it is going, particularly the phenomena which Derek Solla Price has termed as diseases of science.3 In trying to study these areas and to answer some of the questions has one to limit one's study to advanced countries of Europe or America or has one to make a comparative study? Such a question raises the major problem in science, i.e. its international character and the effect of the different national traditions on the internationalism of science, if any.

^{3.} Science since Babylon.

It would be an interesting field of study to investigate the mutual interaction of various national traditions to give shape to the international tradition. The interaction itself is taking place through groups of scientists, research organisations, scientific societies and publications at various levels such as cultural, social, economic and political.

A comparative study, for instance, of the development of science since earlier times would reveal broad characteristics of science which differ from period to period and from one civilisation to another, e.g. contemporary science in ancient India, Greece, or China, or of these civilisations, with that of the later Arab civilisation or modern period.

Further, the development and growth of science since the Renaissance in Europe shows marked geographical trends as would be evident from its beginnings in Italy and gradual dissemination to other countries of Europe and later in America. This growth also reveals that different subjects in science developed in different periods and were given different degrees of emphasis in different countries. In modern times, due to the resources required, these differences have been accentuated as would be evident from such fields as nuclear physics, space research, etc.

It would be worth studying as to what these differences are due to and a knowledge based on scientific study of the problem would help in giving a more conscious direction to science itself. This is what is being attempted through studies on science now. Such a study would involve an investigation on the internal structure of science and its relationship with other social factors. For instance, it would mean a study of diffusion of science within a country, not merely as an impact of a group of creative workers on the intellectual climate of a country but the role of creative workers in the context of their organisations, and societies in a complex framework of social. economic, cultural and political factors. It would also throw light on why and under what social and economic climate science makes progress and is retarded by others, why it makes

rapid progress in some countries while in others it does not, why there is a national discontinuity in a tradition?

Marx's contribution and its significance lies in appreciating the significance and importance of science as an instrument of change in society and further suggesting that science and technology as a subsystem of society could be subjected to scientific analysis based on historical, economic, social, cultural and other such considerations. That he did not carry out this analysis himself was more due to the nondevelopment of science and technology to a stage when such an analysis was possible. Since his time a number of scientists and thinkers, who have benefited by his method of analysis and the consequent theories, have taken up these studies and have made a major contribution to our understanding of science and technology, and its use as a conscious tool to change society and give it a definite direction. The seeds sown by Marx have yielded a rich harvest both in terms of knowledge as well as practical results.

Some Points Regarding Marx's Views on History

ASHOK RUDRA

THE PROBLEMS WE SHALL be discussing in the course of the present article relate to some of the issues regarding Marx's philosophy of history about which much controversy has raged during the last one hundred years. So much has already been said about these matters that it is doubtful whether anything very new can be said and we are suffering from no illusion that anything definitive is going to emerge out of the modest effort represented by this small article. If all the same we have ventured into this much trodden field the explanation lies in a conviction that we have acquired over the years while labouring through the interminable and repetitive debates that have taken place between upholders and critics of the Marxist view of history. It is simply that much of the differences would disappear if one could communicate with the help of a more adequate language system. We have come to believe that many criticisms of Marx's ideas in this field would be found to be unjustified and irrelevant once they are presented in a language which lends itself to greater precision and rigour.

In this essay at persuasion we shall be taking recourse to a rather unorthodox method of argumentation. We shall be making very limited use of certain simple results of mathematics and statistics to illustrate that certain reasonings of Marx which have been criticised as being inconsistent, vague or meaningless could be so presented as to be found perfectly consistent, clear and meaningful.

It is necessary to make clear here what kind of a use of mathematics is involved in this technique of argumentation. We are not translating Marx's ideas into the language system of mathematics or of symbolic logic, though we do believe that such translation is possible in principle. We do believe that all discussions involving comparative and quantitative arguments can be made to gain in clearness and definiteness through the use of the notation systems of mathematics and symbolic logic and the strict adherence to the structure of discourse that distinguishes between axioms, hypotheses and theorems. In having this preference we do not ignore the various intellectual monstrosities that are being perpetrated in the name of econometry and sociometry; but that is only an indication of the infant stage of the application of mathematical tools to the social sciences. Whatever that might be we have not attempted here this very ambitious task of translating Marx into a more rigorous language. Our use of mathematics in bits and pieces is rather comparable to that of an English writer who while writing in English borrows every now and then phrases from French and German wherever he can express himself better by doing so.

I

THE FIRST PROBLEM we shall take up for treatment by this experimental method is the relation between Marx's notion of historical determinism and fatalism. Some of the most powerful criticisms of Marx have been levelled against his alleged faith in 'historical inevitability' and propensity to make 'prophecies'. Thus, Popper writes:

^{1.} Karl Popper, The Open Society and its Enemies, Vol. 2.

For the plausible argument that science can predict the future only if the future is predetermined—if, as it were, the future is present in the past, telescoped in it—led him to adhere to the false belief that a rigidly scientific method must be based on a rigid determinism. Marx's 'inexorable laws' of nature show clearly the influence of the Laplacean atmosphere and that of the French materialists.

It is of course possible to quote from Marx in support of these allegations. Thus, Popper himself cites the following:

When a society has got upon the right track for the discovery of the natural laws of its movement...it can neither clear by bold leaps, nor remove by legal enactments, the obstacles offered by the successive phases of its normal development. But it can shorten and lessen the birth-pangs.²

(This, incidentally, does not lend much support to the thesis of Marx's being a rigid determinist; for in that case the extent of birth pangs has also to be treated as predetermined and therefore not subject to any lessening — A. R.)

and

It is the ultimate aim of this work, to lay bare the ... law of motion of modern society.3

When it comes to utterances such as

... capitalist production begets, with the inexorability of a law of nature, its own negation4

O۴

This integument is burst asunder. The knell of capitalist private property sounds. The expropriators are expropriated.⁵

it is indeed pardonable to think of Marx as one donning the robe of a prophet.

- 2. Preface to Capital, Vol. I.
- 3. Ibid.
- 4. Communist Manifesto.
- 5. Capital, Vol. I.

However, it is equally easy to extract other passages out of Marx which totally contradict the suggestion of his being a rigid determinist. Was it not Marx who proclaimed:

The philosophers have only interpreted the world in various ways; the point, however, is to change it.6

Could anyone have rejected fatalism with greater force than in the following words of Marx?

History does nothing; ...it is men, real living men, who do all these things and fight battles. It is not 'history' which uses men as a means of achieving—as if it were an individual person—its own ends. History is nothing but the activity of men in pursuit of their ends.7

But countering one set of citations by another set does not lead anywhere. For the critic may treat this as only revealing the dual and contradictory nature of Marx's thought. Thus, Popper writes,8

Marx's historicist view of the aims of social science greatly upset the pragmatism which had originally led him to stress the predictive function of science.

A more sophisticated line of defending Marx has consisted in emphasising the distinction between determinism and fatalism. The distinction sought to be established is however quite frequently not very convincing, e.g. by fatalism and determinism we understand as follows:

Fatalism, strictly the doctrine that all things happen according to prearranged fate, necessity or inexorable decree.9

Determinism, in ethics, the name given to the theory that all moral choice, so called, is the determined or necessary

^{6.} Theses on Feuerbach.

^{7.} Holy Family.

^{8.} K. Popper, Op. Cit., Vol. 2.

^{9.} Encyclopaedia Britannica.

result of previously existing mental, physical or environmental causes.¹⁰

We shall see below that Marx's determinism can be so interpreted as to be (a) consistent with both the sets of citations from Marx given above from his writings, i.e. consistent with his pragmatism as well as his prophetism; (b) inconsistent with any kind of fatalism or predestination.

Let x_t represent the result of a certain measurement carried out on a specified aspect of the real world at time t. Fatalism (or predestination) would have it that the state of the world at any time point t is preordained and therefore x_t would take a definite value dependent upon t. In other words, x_t is a single valued function of time t:

$$\mathbf{I} \qquad \mathbf{x_t} = \mathbf{f(t)}$$

Determinism on the other hand requires that the state of the world at a particular point of time be uniquely determined by the states of the world in the past. Let y_t , z_t , etc. be measurements on certain other aspects of the world related to x_t . Then determinism would mean that there are functions F_x , F_y , F_z , etc. such that one can write

$$\begin{aligned} x_t &= F_x(x_{t-1}, x_{t-2}, \dots y_{t-1}, y_{t-2}, \dots z_{t-1}, z_{t-2}, \dots) \\ y_t &= F_y(x_{t-1}, x_{t-2}, \dots y_{t-1}, y_{t-2}, \dots z_{t-1}, z_{t-2}, \dots) \\ z_t &= F_z(x_{t-1}, x_{t-2}, \dots y_{t-1}, y_{t-2}, \dots z_{t-1}, z_{t-2}, \dots) \end{aligned}$$

These may be regarded as homogeneous simultaneous difference equations¹¹ and it can be seen by repeated substitutions from one equation into the other that the most general expression for the set of solutions would be as follows:

$$x_t = G_x(t)$$

$$y_t = G_y(t)$$

$$z_t = G_z(t)$$
etc.

^{10.} Ibid

^{11.} We get difference equations as, for the sake of covenience we have taken 'past' to be represented by time series of measurements taken at equidistant time points, the distance between successive observations being taken as the unit of time.

Thus, if by determinism we understand determination by the past and by fatalism preordination, say from before the beginning of time, the two would mean exactly the same thing for xt. If xt is subject to determinism it is also historically inevitable.

This is so because by determinism is being meant total or complete determination of the present by the past. If instead of complete we allow the flexibility of 'almost complete' determination, we get very different results. The entire spirit of Marx's writings evokes a qualified determination of this sort. He himself writes in The Eighteenth Brumaire of Louis Bonaparte:

Les hommes font leur propre historie, mains ils ne la font pas librement, dans des conditions choisies par eux, mais dans des conditions directement données leguées par la tradition.

(Men make their own history, but they do not do so freely, in conditions of their own choice, but in conditions which are given directly, handed down by tradition.)

The idea therefore is of the past putting restrictions on the present but not completely determining it. We shall now see that so long as any scope is allowed for indeterminacy,

- (1) the whole course of history becomes indeterminate;
- (2) the particular happenings during a brief period become predictable subject to errors, the magnitude of errors being smaller, shorter the distance between the time of making prediction and the period for which prediction is made.
- (3) While the course of history remains unpredictable, the rhythm, pattern, trend, etc.—features that would be revealed by the course—remain predictable in relatively broad and general terms.

Let x_t , y_t , z_t satisfy, instead of II, the following relations $x_t = F_x(x_{t-1}, x_{t-2}, \dots y_{t-1}, y_{t-2}, \dots z_{t-1}, z_{t-2}, \dots) + e_t$ IV $y_t = F_y(x_{t-1}, x_{t-2}, \dots y_{t-1}, y_{t-2}, \dots z_{t-1}, z_{t-2}, \dots) + f_t$ $x_t = F_z(x_{t-1}, x_{t-2}, \dots y_{t-1}, y_{t-2}, \dots z_{t-1}, z_{t-2}, \dots) + h_t$

where the elements e_t , f_t and h_t , etc. stand for the parts of $x_{t\varepsilon}$ y_t , z_t , etc. that are left undetermined by past influences, working directly or indirectly. These parts may represent, in the case of human history, the operations of 'free will': in the case of natural history, that of chance factors. The system IV constitutes a set of nonhomogeneous difference equations differing from the set III for having nonzero elements e_t , f_t , h_t , etc.: and their solutions will have the general expression

V $x_t = G_x(t) + H_x(e_{t-1}, e_{t-2}, ... f_{t-1}, f_{t-2}, ... h_{t-1}, h_{t-2}, ...)$ and similarly for y_t and z_t . Under certain (mathematical) conditions the part $G_x(t)$ would vanish, so that one would be left with

VI $x_t = H_x(e_{t-1}, e_{t-2}, \dots f_{t-1}, f_{t-2} \dots h_{t-1}, h_{t-2}, \dots)$. The observed magnitude x_t thus may be regarded as embodying exclusively the cumulative effects of undetermined factors at different dates in the past. If x_t represents a certain aspect of human history at time t, then formula VI above may be interpreted as describing the way mankind, acting as a free agent, makes its own history. Formula IV on the other hand describes the way this very history, made by man himself, circumscribes his freedom of action at every point of time. Given the past, man's freedom of action is indeed very limited: it may be expected that in formula IV e_t would be small compared with x_t . But this freedom, however little, exercised at every point of time makes the whole history of mankind, a creation of man himself, acting as free agent. Is

The fact that history is made by man acting as a free agent and that the present (and therefore the future) is not completely determined by the past does not mean that it is not possible to have 'laws of history' which lay down certain general charac-

^{12.} If $G_{\mathbf{X}}(t)$ does not vanish, x_t would consist of one part subject to predestination, another part representing cumulative result of undetermined factors.

^{13.} It is not being suggested that all individual human beings act freely and create history. Only that traditions, institutions and the economic infrastructure that condition human behaviour are all created by men.

teristics that would mark the course of history. Popper criticises Marx for assuming that the aim of historical prediction 'is attainable by discovering the "rhythms" and "patterns", "laws" or the "trends" that underlie the evolution of history.' But while formula IV does not permit of any exact predictions or even of approximate predictions far into the future—the margin of error would become larger and larger as one would try to predict xt with formula IV with more and more of the variable xt-1, xt-2, etc. unknown—it is precisely in terms of what may be called the 'rhythms' and 'patterns' and 'trends' that we may foresee the future. An example from the statistical theory of time series might help to understand how.14

A series xt of observations that satisfy the following simple recursive relation

VII
$$x_t = a_1 x_{t-1} + a_2 x_{t-2} + \dots a_n x_{t-n} + e_t$$

where e_t is a random variable is called an autoregressive series of order n. It has the following property that given knowledge of the past up to x_{t-1} , x_t is predictable but for the random error component e_t . Given knowledge of the past up to x_{t-2} , x_t is again predictable, but subject to a much larger error.

It is possible to solve the difference equation VII and write

VIII
$$x_t = e_t + b_t e_{t-1} + b_2 e_{t-2} + b_3 e_{t-3} + \dots$$

The autoregression relation VII and its solution VIII may be seen to be special cases of the general formula for 'almost deterministic' relation IV and its solution, (VI). Now for this particular case, it is known that

- (a) x_t would reveal irregular ups and downs about a certain trend:
- (b) the trend may be a horizontal one or it may rise or decline:
 - (c) while the irregular waves would have no regular periodi-

^{14.} The argument given below is purely illustrative in character. It is not being suggested that reality or any aspects of it can be represented by such a simple model involving cardinal numbers.

city and no fixed amplitude, they would have an average periodicity and an average amplitude;

(d) the average periodicity and the average amplitude might remain unchanged over time; or they may rise or decline.

Here is thus an example of a series each individual member of which is unpredictable and yet its 'pattern', 'trend', 'rhythm', etc. are known if one knows its generating function, VII, which is precisely the type of function which, if we have understood Popper correctly, he recommends for making what he calls 'technological predictions'. There is nothing unscientific if about history too one were to discover such patterns from the identification and analysis of such functions as Fx, Fv Fz, etc. in formula (IV). It should be mentioned here that F_x, F_y, F_z, might themselves change with time, and not following any law. In that case prediction, even in qualitative terms, even about patterns and rhythm, would be ruled out. But if the change of the functions be slow then it is only in the long run that this bar would become effective. In this connection it may be mentioned that Marx never indulged in historical predictions over the very distant future. All his 'prophecies' referred to the collapse of capitalism which he thought was imminent.

II

WE MAY NOW TURN to the question of what it might mean to select one among a number of interdependent factors and describe it as the determinant of the others, in the ultimate analysis. We are thinking of the so-called materialist or economic interpretation of history:

...legal relations and forms of state could neither be understood by themselves nor explained by the so-called general progress of the human mind, but ... are rooted in the material conditions of life. 15

a5. Preface to the Critique of Political Economy.

The mode of production of material life determines the general character of the social, political and spiritual processes of life, 16

and we are thinking of the criticism that has often been made that the superstructure being not without having its influence on the infrastructure (as Marx himself was the first to admit), what does it mean to say that the infrastructure determines the superstructure?

Let A B C D ... etc. a number of interdependent phenomena such that each of them could be predicted to different extents in terms of any combinations of the remaining ones. IF there be a factor B such that after taking into account its contribution one does not gain much in the understanding of phenomena A (in the sense that one cannot make predictions for A any more accurately), by additionally considering factors C, D, etc. whereas even after taking all other factors C, D, etc. into account, accuracy of predictions A is markedly increased by the inclusion of B among the explanatory facts, then we may describe B as the 'basic' or 'prime' determinant of A. It is not necessary to bring in any notion of causality here. All that is called for is an application of the well-known razor of Occam. B, C,D, etc. all of them may be explanatory factors: it is not necessary to find out what causes which result. If in order to understand A, it is sufficient to analyse the direct and indirect relations of A and B, whereas the reciprocal is not true (i.e. in order to understand B, it is not sufficient to analyse only factor A) then one may say that the basic factor explaining A is B irrespective of the fact B is also dependent on A.

This notion of some explanatory factors being more fundamental than others, far from being the product of unscientific habits of mind, directly underlie the technique of regression analysis which finds so wide application nowadays in the social sciences. Let x_A , x_B , x_O , x_D be a number of mutually correlated

variables. Then we may call x_B the basic explanatory variable with respect to x_A if the partial regression coefficients of x_A on the variables x_C , x_D , etc. are insignificant when x_B is given but the partial regression coefficient of x_B on x_C , x_D , etc. are not all insignificant, given x_A Coming now to superstructure and infrastructure, Marx's concept of the latter 'determining' the former might mean only this that measurements on the former could be analysed satisfactorily in terms of their regression on measurements on the latter. But variables relating to the infrastructure, while they are indeed correlated with variables relating to the superstructure, have significant partial regressions on other variables also relating to the infrastructure.

Marx and India

V. B. SINGH

I*

A RIGOROUS STUDY of law led Karl Heinrich Marx (1818-83) to search for an adequate philosophy of history. His further studies convinced him that such a philosophy of history could not be formulated without the firm understanding of political economy, which he called social anatomy. In his Theses on Feuerbach (1845) he observed: 'The philosophers have only interpreted the world, in various ways; the point, however, is to change it.'1 This dictum provides the key to the understanding of Marx's doctrines built on the trinity of his intellectual heritage from German philosophy, French socialism and British political economy. (That he was exiled from Germany, Belgium and France, and subsequently took refuge in England, now appears to be a blessing in disguise.)² It may be argued, therefore, that Marx's interest in India was Marxist. In other words, his interest was not merely theoretical (emanating from a study

^{*}The first three sections of the paper reflect not so much the finished thought of the author as the direction in which he would like to work. A detailed discussion on the ideas presented in the fourth section is to befound in his forthcoming work Theories of Economic Development.

found in his forthcoming work Theories of Economic Development.

1. Marx-Engels Selected Works, Vol. II, Moscow, 1951, p. 367.

2. See the chapter on Marx in author's forthcoming book Theories of Economic Development.

of history, philosophy, political science and political economy) but also practical (rooted in his conviction and action to replace capitalist society by a socialist one).

In his preface (dated London, 25 July 1867) to Das Kapital he wrote: 'In this work I have to examine the capitalist mode of production, and the conditions of production and exchange corresponding to that mode. Up to the present time, their classic ground is England. That is the reason why England is used as the chief illustration in the development of my theoretical ideas.' We know that the main burden of Das Kapital Vol. I is to analyse the relations between wages and profits, the revenues of the two basic classes under capitalism and to explain the origin of profit. In accordance with his adherence to successive approximation here he assumes a closed society. Even then, while discussing the sources of primitive accumulation, Marx has made references to the colonial plunder of India. There are repeated references to India in the first volume of Das Kapital and a larger number in the Marx-Engels Correspondence. These references, when interpreted in Marx's theoretical framework, imply that Marx's interest in India was an integral part of his interest in the study of British capitalist development. When he proceeds from the assumptions of a 'closed economy' (Volume I) and introduces the element of foreign trade,3 as a counteracting factor to the law of the falling tendency of the rate of profit (Volume III), he unfolds the picture of classical capitalism transforming itself into colonialism.4 Even in his preface to Volume I, he could see the shape

^{3.} See B. N. Ganguli, in B. Singh and V. B. Singh (eds.), Social and Economic Change: Essays in Honour of D. P. Mukerji, Bombay, 1967.

^{4.} In the early fifties of the last century Marx (and Engels) wrote on India, China, Spanish Revolution, Russia, the Eastern Question, the Crimean War and the First War of Indian Independence. The interpretation of the historical data was a part of their study of the capitalist development in England. See K. Marx, Articles on India (Bombay. 1943). Marx on China (London, 1951). Marx and Engels, The First Indian War of Independence (Moscow), Marx, Notes on Indian History and Marx and Engels, On Colonialism.

of things to come when he wrote: 'The country that is more developed industrially only shows, to the less developed, the image of its own future.'

П

THE AUTHORS OF THE Communist Manifesto (1848) declared that the history of all human society, past and present, has been the history of class struggles. This conclusion is based on an analysis of class society since primitive times, depending on exploitation—exploitation being defined as an appropriation of surplus labour, surplus product or surplus value of the direct producers by a class that owns the means of production. Following this analysis Marx writes:

The specific economic form, in which unpaid surplus labour is pumped out of the direct producers, determines the relationship of rulers and ruled...It is always the direct relationship of the owners of the conditions of production to the direct producers...which reveals the innermost secret, the hidden foundation of the entire social structure.5

In understanding this 'secret' the concept of class is crucial. Taking their cue from the Tableau Economique; and Adam Smith and David Ricardo, the authors of the Manifesto scientifically described the social anatomy of the capitalist society. It is in this context that they used the terms 'bourgeoisie' (the owners of the means of production), 'petty bourgeoisie' (small owners of the means of production) and 'proletariat' (the wage earners who had no other means of livelihood). The authors of the Manifesto predicted:

The lower strata of the middle class—the small tradespeople, shopkeepers, and retired tradesmen generally, the handicraftsmen and peasants—all these sink gradually into the proletariat, partly because their diminutive capital does not suffice for the scale on which modern industry is car-

^{5.} Marx, Capital, III, Moscow, 1959, p. 772.

ried on, and is swamped in the competition with the large capitalists, partly because their specialised skill is rendered worthless by new methods of production. Thus the proletariat is recruited from all classes of the population.⁶

Referring to the proletarianisation of the professional occupations, the authors of the Manifesto say:

The bourgeoisie has stripped of its halo every occupation hitherto honoured and looked up to with reverent awe. It has converted the physician, the lawyer, the priest, the poet, the man of science, into its paid wage-labourers.⁷

There is no doubt that in the writings of Marx and Engels the manual workers dominate the scene. Because of the technical base of production in the nineteenth century the office. technical, scientific and educational workers naturally could not play that role which the development of science, technology and organisation (of production and distribution) have assigned to them today. Marx's distinct contribution over his predecessors, in clarifying the concept of productive labour, lies in the fact that he identifies it with wage-employment (with a view to earning profit).8 The wage-employment of cooks, waiters, barbers, clowns, buffoons, actors, musicians, physicians, surgeons, lawyers, teachers and office workers conceptually bring them within the fold of the proletariat. Similarly the 'industrially necessary' services of these categories rendering the workers more productive and efficient, render the (traditionally considered) unproductive classes into indirectly productive class.

In the contemporary world costs incurred on education, research and health are being treated, purely for functional reasons, investment in human capital. Science and production are dovetailed into each other; and the elements of education, health services and recreation, apart from technology (a pro-

^{6.} Marx-Engels Selected Works, Vol. I, Moscow, 1950, p. 41.

^{7.} Ibid., p. 36.

^{8.} Marx, Theories of Surplus Value, Part I, Chapter IV, Moscow.

duct of science) are determining the magnitude of productivity irrespective of the patterns of economy. The growth of technology and skill acts and reacts on each other in an upward movement. As a result of these changes, the technical base of production is changing. The role of the researcher, inventor and factory worker is mingling. Behind the factory workers stands an army of educational, scientific, technical and office workers. The flow of production is a confluence in which the labour powers of the educational, scientific, office and factory workers intermix. It is in this context of the technological revolution that the role of nonmanual workers is to be assessed in the contemporary social and economic transformation. The traditional distinction between the 'white' and 'blue' workers is fading. This clarification is essential for identifying the class(es) that play a dynamic role in economic development. The bourgeoisie revolutionised the conditions of production and brought about a transformation in the traditional society by capitalism.

III*

The transition from the feudal mode of production to capitalist, Marx tells us, has taken two paths or ways. In the first path, 'The producer becomes merchant and capitalist, in contrast to the natural agricultural economy and the guild-bound handicrafts of the medieval urban industries. This is the really revolutionising path.'9 In the second path, 'the merchant establishes direct sway over production', the merchant becomes an industrialist, 'tends rather to preserve it and retain it (the old mode of production) as its precondition', 10 'to the real capitalist mode of production and goes under with its development'. 11

^{*}This is based on chapter I of author's Indian Economy: Yesterday and Today, Delhi, 1964.

^{9.} Marx, Capital, III, Moscow, p. 329.

^{10.} Ibid.

^{11.} Ibid.

These two paths are rooted in the Marxian theory and history of economic development as well as underdevelopment.

Whether a country has taken the first or the second path, or a mixture of both, is an empirical question. But both the paths emerge from the precapitalist state of production. The sources of accumulation, in a precapitalist economy, are agriculture, manufacture and trade. That all these three, in the Indian context, have been systematically plundered by the British rule is a commonplace knowledge for students of Indian economic history. Young Marx was fully aware of this mechanism of pumping out the wealth from India, and has made repeated references to this. 12 In Volume I he quotes the Governor General's Report of 1834-35 to say, 'The misery hardly finds a parallel in the history of commerce. The bones of the cotton-weavers are bleaching the plains of India.'

The organisation of Indian agriculture along with cottageindustry, within the framework of the village community, has been treated by Marx as an obstacle to the extension of the market.13 His picturesque description of the Indian village community has generally been misunderstood as a manifestation of the 'unchangeableness of Asiatic societies'—in some absolute sense. Marx's reference to 'unchangeableness' is only in a relative sense. He refers to the survivals only of 'some village communities'—implying that others have disintegrated. He alsorefers to the formation of a surplus when a part of the grain reaches the hands of the state.14 The Indian exports consisting. of manufactures do manifest the formation of a surplus. The natural course of the development of Indian economy wasretarded by the British through its economic, political and military intervention. Had it not been so, it is natural that out of the agricultural, manufacturing, trading and shipping inter-

^{12.} See, for example, his article 'The East India Company. Its History and Outcome', New York Daily Tribune, 11 July 1853.

^{13.} See Capital, I, p. 328.

^{14.} Ibid., pp. 357-59.

ests a new class of capitalist entrepreneurs would have emerged, 15 may be under royal patronage, as it happened in Japan. This was all the more possible because, nature has enriched India with raw materials—cotton, jute, iron ores; and the country has an extensive internal market.

Marx's views, as reflected in the articles in New York Daily Tribune, on the role of British rule in Indian economic development, have often been misrepresented by vested interests and pseudointellectuals. It is argued that had India managed to 'escape' the 'beneficent' effects of the British rule, she would have remained an idyllic, preindustrial and disunited country. In support of this view Marx's references to the 'regenerating role' of British rule in India are unintelligently pieced together. All that Marx has said is: 'England has to fulfil a double mission in India: one destructive, the other regenerating—the annihilation of old Asiatic society, and the laying of the material foundations of Western society in Asia.' In its task of 'annihilation' the British rule was an exogenous factor; because the disintegration of the Indian society, slowly but surely, was taking place.

Further, in Marx's words 'the laying of the material foundations of Western society' (in India) was accomplished by the British, as 'the unconscious tool of history': the imperial necessities forced the British, in their own self-interest, to lay the material foundations—'political unity', 'railways', 'electric telegraph', 'native army', 'free press', 'private property in land', an (English) educated middle class and 'regular and rapid communication with Europe'17—for the future, unborn, society of India. Marx's reference to 'material foundations of Western society', imply the construction of the socio-economic infra-

^{15.} The authors of the Communist Manifesto state: 'The medieval burgesses and the small peasants are precursors of the modern bourgeoisie. In those countries which are but little developed industrially and commercially, these two classes still vegetate side by side with the rising bourgeoisie.'

^{16.} New York Daily Tribune, 8 August, 1853.

^{17.} For comments see R. P. Dutt, India Today, Bombay, 1947, pp. 80-81.

structures—a precondition for economic development. Marx had no doubt that:

The Indians will not reap the fruits of the new elements of society scattered among them by the British bourgeoisie, till in Great Britain itself the new ruling classes shall have been supplanted by the industrial proletariat, or till the Hindoos¹⁸ themselves shall have grown strong enough to throw off the English yoke altogether.¹⁹

IV

As a result of the interaction of the above forces India won freedom in 1947. The Indian national movement has considered political independence as a means to socio-economic regeneration. Therefore, the question of the path of planned economic development that India has chosen may be evaluated in the context of Marx's ideas.

The germs of a theory of planning (and the programmes emanating from it) are found in the following passage of the Communist Manifesto:

The proletariat will use its political supremacy to wrest, by degrees, all capital from the bourgeoisie, to centralise all instruments of production in the hands of the state...

Of course, in the beginning, this cannot be effected except by means of despotic inroads on the rights of property, and on the conditions of bourgeois production; by means of measures, therefore, which appear economically insufficient and untenable, but which, in the course of movement,

^{18.} Marx uses the word 'Hindoos' to refer to Indians. This was a practice in vogue till the 19th century.

^{19.} Marx, op. cit. Even Marxist intellectuals, sometimes tend to overlook this conditional nature of Marx' forecast of the operation of the effects of the infrastructure laid down by the British. See B. Chandra, The Rise and Growth of Economic Nationalism in India, New Delhi, 1966, p. 196, fn. 73.

outstrip themselves, necessitate further inroads upon the old social order, and are unavoidable as a means of entirely revolutionising the mode of production.

These measures will of course be different in different

countries.

Nevertheless in the most advanced countries,²⁰ the following will be pretty generally applicable.

- 1. Abolition of private property in land and application of all rents of land to public purposes.
 - 2. A heavy progressive or graduated income tax.
 - 3. Abolition of all rights of inheritance.
- 4. Confiscation of the property of all emigrants and rebels.
- 5. Centralisation of credit in the hands of the state, by means of a national bank with state capital and an exclusive monopoly.
- 6. Centralisation of the means of communication and transport in the hands of the state.
- 7. Extension of factories and instruments of production owned by the state; the bringing into cultivation of wastelands, and the improvement of the soil generally in accordance with a common plan.
- 8. Equal liability of all to labour. Establishment of industrial armies, especially for agriculture.
- 9. Combination of agriculture with manufacturing industries; gradual abolition of distinction between town and country, by a more equable distribution of the population over the country.
- 10. Free education for all children in public schools. Abolition of children's factory labour in its present form. Combination of education with industrial production, &c., &c.²¹

The above programme, outlined 120 years ago, has been debated, criticised, advocated, banished and accepted. But an

^{20.} India, at her present stage of development, may be included in this category of countries.

^{21.} Marx-Engels Selected Works, Vol. I, Moscow, 1950, pp. 53-54.

insight into the programmes of Indian economic development unfolded by our broad-based revolutionary national movement shows that democratic India is struggling hard to define the above programme in the Indian context. Some of these programmes have been nationally accepted and implemented; and some others have been accepted but not implemented. The inevitability of the acceptance of the fundamentals of the programme of the Communist Manifesto emerges out of an understanding and operation of the mechanism of economic development.

The most crucial factor in economic development is the accrual and expansion of an economic surplus. In countries like India the most important problem is the conversion of the potential (i.e. the difference between the output that could be produced in a given natural and technological environment with the help of employable resources and what might be regarded as essential consumption)22 into the actual economic surplus (i.e. the difference between society's actual current output and its actual current consumption). This is possible only when the accepted policy of industrialisation and modernisation of agriculture is put into operation. At the present stage of development, Indian economy consists of, in the context of Marx's departmental scheme, a subsistence sector (sector A) and a surplus producing sector (sector B). The expansion of sector B implies that sector A is immediately integrated into it; and the expansion of Department I (industries producing the means of production) is made the hub of industrialisation. The integration of sector A into B implies the immediate implementation of radical land reform (land redistribution, cooperativisation, cancellation of old debts of peasants and agricultural workers, abolition of land revenue and introduction of progressive agricultural income tax), nationalisation of banks, formulation of a programme of progressive nationalisation of industries, fixation of the balances between income and consumption, moratorium

^{22.} P. A. Baran, Political Economy of Growth, London, 1957, p. 22.

on foreign payments, compulsory procurement of agricultural surpluses through state trading in foodgrains.

It is a happy augury for the country that the election manifestos of the Indian parties belonging to the centre and the left, generally contain these programmes. The crucial question, today, is the creation of the correlation of class relations that bring together the left and the left of the centre. To understand this social dynamics and to work for a socialist India is the richest tribute that Indian socialists could pay to Karl Marx to mark the centenary of Das Kapital and his 150th birth anniversary. Let us try to understand Marx. Because:

Marx was the best hated and most calumniated man of his time. Governments, both absolutist and republican, deported him from their territories. Bourgeois, whether conservative or ultra-democratic, vied with one another in heaping slanders upon him. All this he brushed aside as though it were cobweb, ignoring it, answering only when extreme necessity compelled him. And he died beloved, revered and mourned by millions of revolutionary fellow workers — from the mines of Siberia to California, in all parts of Europe and America — and I make bold to say that though he may have had many opponents he had hardly one personal enemy.

His name will endure through the ages, and so also will his work!

(Extract from the Speech delivered by Frederick Engels at the Graveside of Karl Marx on 17 March 1883)

Theory of Peasant Farming

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PEASANT FARMING, AS A DISTINCT form of agrarian organisation, has been known to be different in its economic features both from the capitalist as well as the collective systems of farming. In the latter two, farming depends essentially on the employment of hired labour on wages by a private capitalist or by a collectivist management. But in peasant farming, farm labour is supplied by the farm family. The decisions about what to produce, how much to produce, with how much intensity of labour and capital and with what techniques, all rest with the self-employing farm family. Naturally, therefore, the problem of allocation of agrarian population into different economic activities in the countryside assumes an altogether new dimension in a peasant milieu. The considerations of peasant family size, its demographic composition, and the need to provide it with the means of livelihood and economically productive work acquire particular importance. These in no sense are problems met with in the allocation of labour on capitalist principles. Consequently, in peasant farm organisation, the principles of taking decisions on these matters, and the economics of peasant behaviour, may be expected to be somewhat different from those of the capitalist farmers or collective-farm managers.

A number of scholars have noticed and drawn particular attention to these specific features of peasant farm organisation.

The earliest of these was Richard Jones, an English economist, who in 1831, in his analysis of peasant rents, had noted some of these characteristics and cautioned against the universal validity of the Ricardian theory of rent. Later, as knowledge in Britain about agrarian conditions in other parts of the world, particularly about India and Ireland, improved it was widely felt that the theories of Smith and Ricardo regarding the determination of rents, wages, profits and interest rates in agriculture require important modifications in a peasant society. Yet the impact of the ideas of classical political economy in those days was so strong that the dissenting schools did not find a favourable climate for acceptance.

More recently, a number of scholars, especially Doreen Warriner² and David Mitrany³ have dwelt on the distinctive characteristics of peasant farm organisation in Eastern Europe. Mitrany has also discussed the theoretical approach of Marx and Marxists towards the peasant question in these countries, albeit with an anti-Marxist bias. Despite these well-known works, however, few scholars had suspected the existence of a fully worked-out theory of peasant behaviour, as elegant and consistent as one finds in the present work. In fact, Georgescu-Roegen, who had tried to examine Mitrany's materials and formulate a few economic theory for peasant societies, had come to the conclusion that the 'agrarians' of Eastern Europe had no consistent economic theory of peasant agriculture.4

The book under reviews shows that while the East-European 'agrarians' may not have arrived at the formulation of a logically

2. Doreen Warriner, Economics of Peasant Farming, London, 1964.

3. David Mitrany, Marx Against the Peasant, London, 1951.

4. N. Georgescu-Roegen, 'Economic Theory and Agrarian Economics', Oxford Economic Papers, Vol. xii, No. 1, Feb. 1960, pp. 1-40.

^{1.} Richard Jones, An Essay on the Distribution of Wealth and on the Sources of Taxation, New York, (Reprinted), 1956, pp. 1-184.

^{5.} The Theory of Peasant Economy, by A. V. Chayanov, Edited by Daniel Thorner, Basile Kerblay, R. E. F. Smith; Published by Richard D. Irwin Inc., Homewood, Illinois, for the American Economic Association, 1966; pp. lxxv+317; Price \$8.00.

consistent theory of peasant behaviour, there was another school of research workers in Russia which did develop a logically consistent theory of peasant farm behaviour.

For this reason alone, if for no other, the book under review acquires a unique importance. It is perhaps the first and the only publication in the English language which contains a theory of the peasant farm organisation, its distinct principles of labour allocation, and their economic theoretical consequences for the national economy in which peasant agriculture develops, thrives or persists. And it may be said that the book has appeared none too soon.

Peasant farming in the contemporary world is in a new phase of resurrection over the vast terrains of Asia, Africa and Latin America. Many newly-independent countries of the world since the second world war have been engaged in the immense tasks of abolishing feudal and medieval forms of land tenure and are seeking to establish peasant farming. A major portion of their population is engaged in farming with millions of peasant farm households comprising the basic units of exonomic decisions. In such a world, it is of utmost importance and relevance to have a book which examines the peasant farm organisation as a distinct type of economic unit and the theoretical principles of its economic behaviour.

The present volume contains the English translation of a book by a Russian economist, Professor A. V. Chayanov, originally published in Moscow in 1925 under the title Peasant Farm Organisation. An earlier and shorter version of this book had already been published in German in 1923 and was also translated into Japanese. The 1925 version had also been published in Japan in 1957. But so far, there was no work of Chayanov available in the English language.

The volume also contains in English translation (from German) of one of Chayanov's outstanding articles 'On the Theory of Noncapitalist Economic Systems'. Besides, there is an essay by Daniel Thorner on 'Chayanov's Concept of Peasant Economy' and another by Basile Kerblay on 'A. V. Chayanov: Life,

Career, Works'. Then follow a glossary of terms used by Chayanov in his book and an exhaustive, though not complete, bibliography of Chayanov's works. Most of them appear to have been published only in the Russian language.

The approach and methods of theoretical analysis developed by Chayanov formed an integral part of the general approach of large body of scientific men, consisting of economists, agronomists, agricultural officers and cooperative workers, all of whom had begun 'to solve different organisational problems of agricultural production' in the wake of the 1905 revolution in Russia. Their researches and experience provided the 'subsoil' for the emergence of an important school of economic thought described as the Organisation and Production School.

In this school, two streams of research work had merged to provide a basis for their theory. On the one hand, 'an enormous quantity of empirical material on problems of peasant farm organisation had been collected, partly in the Zemstvo statistics and partly by independent researches'. Simple inductive generalisation of this material led to a whole series of incontestable empirical conclusions, which provide the empirical basis for Chayanov's book. And on the other hand, numerous facts and dependent relationships had been empirically established which did not fit into the usual theory of the private economic understanding (theory of the firm in modern economics). And from this fact, 'it seemed convenient to generalise them and to construct a separate theory of the family undertaking working for itself, differing somewhat in the nature of its motivation from an undertaking organised on the basis of hired labour'.

Thus, in his theory of the peasant farm organisation, Chayanov has tried to 'separate' the peasant farm undertaking as a distinct form of economic organisation, different from the capitalist form, and to develop the general principles of its economic behaviour. Prior to his theory, the discussion on 'peasant farming' had been carried on between populists and Marxists mainly in the context of its ability to resist the 'calamity of capitalism' (populist school) or its inevitable collapse

by the processes of differentiation and proletarianisation of peasants as a result of the development of capitalism (Marxist school). Chayanov sought to steer clear of both these approaches, and tried to look at 'peasant farming' as it appeared to function within a system of commodity production in which even capitalist relations may have developed in the sphere of industry and trade but not in agriculture. This was his major point of departure from the earlier populists.

His difference with the Marxists was not as much in principle as in the sphere of practical conclusions. In principle, he even derived support for his theories from the writings of Marx. He also accepted that with the development of capitalism in agriculture, many of the general processes enunciated by Marxists do begin to play their part. But, in his view, '... the organisational shape of the basic cell, the peasant family labour farm, will remain the same, always changing in particular features and adapting to the circumstances surrounding the national economy, as long as the peasant farm exists as such, of course, and has not begun to be reconstructed into other organisational forms' (p. 43). This was perhaps the most fertile ground of his controversy with the Marxists.

Inevitably, a book, so different in approach and method towards the problems of peasant farming, raises many issues of theoretical interest. All these cannot be discussed in a short review for obvious reasons. We, therefore, propose to look into only some of the basic points on which the theoretical structure is based and on which the validity of the theory depends.

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CHAYANOV HAS DEFINED HIS task to be 'an organisational analysis of peasant family economic activity' (p. 51). And he defines the peasant family as 'a family that does not hire outside labour, has a certain area of land available to it, has its own means of production, and is sometime obliged to expend some of its labour force on nonagricultural crafts and trades' (p. 51).

Having thus defined a peasant family—or rather its general characteristics as a unit of economic organisation—Chayanov distinguishes the 'motivation of the peasant's economic activity' from that of 'an entrepreneur who as a result of investment of his capital receives the difference between gross income and production overheads' (p. 42). According to him, a peasant's motivation for economic activity is 'rather... of the worker on peculiar piece-rate system which allows him alone to determine the time and intensity of his work'. Thus 'the whole originality of our theory of peasant farm organisation is, in essence, included in this modest prerequisite, since all other conclusions and constructions follow in strict logic from this basic premise and bind all the empirical material into a fairly harmonious system' (p. 42).

From this basic premise, Chayanov develops his next most important concept of a 'peasant farm'. He defines it 'as a family labour farm in which the (peasant) family as a result of its year's labour receives a single labour income and weighs its efforts against the material results obtained' (p. 41).

In this definition, it is important to emphasise that 'a peasant family labour farm' is conceived here, not as a unit of agricultural production, but essentially as 'a unit of economic activity'. The concept of advantage on a peasant labour farm, developed by Chayanov, also follows from this basic concept. He says:

We ought to stress with particular insistence that by the product of peasant labour, peasant farm income, and so on, we always understand the joint income of the peasant family both from agriculture and from crafts and trades... This circumstance is exceedingly important for us, since our theory of the labour farm... is a theory of an economic unit, or which is the same thing, the economic activity of family labour, and not one of peasant agricultural production (pp. 70-71; author's italics).

With these concepts and definitions, Chayanov seeks to find out as to how a 'peasant family labour farm' will optimise (or maximise) its peasant farm income in any given situation. In this process, he develops a theory of what he calls a 'labour-consumer balance'. He states that 'the energy developed by a worker on a family farm is stimulated by the family consumer demands and as they increase, the rate of self-exploitation (of family labour) is forced up. On the other hand, energy expenditure is inhibited by the drudgery of the labour itself'. Consequently, 'there comes a moment at a certain level of rising labour income when the drudgery of the marginal labour expenditure will equal the subjective evaluation of the marginal utility of the sum obtained by this labour' (p. 81).

This is what Chayanov calls a 'point of natural equilibrium' of the output of the worker on the peasant labour farm, 'since any further increase in labour expenditure will be subjectively disadvantageous' (p. 82). And he concludes: 'Thus any (peasant) labour farm has a natural limit to its output, determined by the proportions between intensity of annual family labour and the degree of satisfaction of its demand' (p. 82).

Chayanov also illustrates these principles graphically, and cites extensive empirical data in support of his theory of 'labour-consumer' balance.

Having thus arrived at the basic principle of peasant behaviour in chapter 2, after the introduction and chapter 1 on 'Peasant Family and Its Influence on the Development of Economic Activity', Chayanov proceeds to examine in the next chapter how this principle actually operates in farm organisation. According to him, 'the basic principles of the family farm...do not belong merely to the peasant farm. They are present in any family labour economic unit in which work is connected with expenditure of physical effort, and earnings are proportional to its expenditure, whether the economic unit be artisan, cottage industry, or simply any economic activity of family labour' (p. 90). However, he adds that 'the peasant farm includes as a family economic unit in agriculture, a number of complications which follow from the nature of agricul-

tural activity. They add to the appearance of its essentially family nature a series of peculiar features in the structure of crop and livestock farming'. And Prof. Chayanov examines the influence of these peculiar features on the working of the farm economy in considerable detail, with extensive empirical and statistical data.

With the size of the peasant family labour force at any point of time being fixed and given, the basic problem in farm organisation is 'to put other factors of production in an optimal relationship to this fixed element' (p. 92). This is determined by technical expediency and necessity, and 'the farm's production elements are fixed in accordance with it in the technical harmony usual among them' (p. 93). However, by no means, 'family size also arithmetically determines farm size and the composition of all its elements' (p. 92). On the contrary, numerous

'empirical dependent relationships show that when, in a particular year, the farm does not have the land or capital needed to develop an agricultural undertaking optimal as to relationship between farm and family size, it is obliged to make its volume of agricultural activity conform with those means of production in minimum supply. The volume is not established automatically by being arithmetically derived from the minimum element, but is set by a complex process of the influence of deteriorating conditions for agricultural production on the basic equilibrium of the economic factors (for instance, of land and capital). Moreover the family turns its unutilised labour into crafts, trades, and other extra-agricultural livelihoods. The whole of its agricultural, crafts and trades income is counterposed to its demands, and the drudgery of acquiring it leads to an equilibrium with the degree of satisfaction of these personal demands (pp. 101-2).

In proof of these propositions, Chayanov cites numerous statistical data which we cannot deal with for obvious reasons of space.

Chayanov also poses three additional questions which he

answers again with the help of empirical data. These are as follows:

- (1) What quantitatively determines the division of peasant labour between earnings from crafts and trades and from agricultural work?
- (2) What determines the availability of land and capital in the peasant family, and does the peasant family not try to develop it from the minimum to the optimum?
- (3) Does not the mass of family labour remaining outside the agricultural undertaking (if organised in conformity with the most expedient technical relationships necessary with given amounts of land and capital) and the mass of demand it has not satisfied have any influence on the economic and technical organisation of the undertaking itself?

In answer to the first, Chayanov's answer is: partly seasonality of agricultural labour, but mainly 'a comparison of the market situation' between agriculture and crafts and trades from the point of view of return per unit of peasant family labour.

In answer to the second, Chayanov does concede that even in peasant agriculture 'in cases where the land regime is not very flexible, the relationship between land and family is regulated by a change in the amount of labour hired or hired out'. However, for the Russian and other contexts, where there exists mobility of land for use under the influence of family growth, by means of raising of land prices and land rents, he concludes that 'the peasant farm with minimum land area and means of production has a real stimulus to develop them to the optimum, and in accord with its capability, carries out this expansion, if, of course, the agricultural market situation is not lower than the market situation for earnings from crafts and trades'. 'Therefore', he adds, 'if, in each particular year, the volume of activity is determined by means of production available in that year, the availability of means of production of itself, taken over long periods, is adjusted by the family, or more accurately, tends to be adjusted to the objective optimal

volume of activity'.

And, in reply to the third question, Chayanov comes to the same conclusion which is already well-known, viz. the forcing of labour intensity on peasant farms even far beyond the optimal limits (laid down by technical considerations). By this means, the peasant family, even while losing on unit labour payment, 'nevertheless considerably expands the gross income of its agricultural undertaking and reaches a basic equilibrium between the drudgery of labour and consumption—within the limits of agricultural activity, of course—at a level of well-being lower than would occur given a farm optimal in size and proportions' (p. 113).

Chayanov further illustrates that 'this forcing up of labour intensity, buying increased annual agricultural income at the price of reducing labour unit payment, is achieved either by intensification of work methods or by using more labour, intensive crops and jobs'. This principle illuminates a lot of

empirical data which Chayanov cites.

Having discussed the basic principles of peasant farm organisation, Chayanov examines the organisational plan of the peasant farm in chapter 5, as it actually existed in different regions of Russia under various combinations of 'natural and market conditions'. He undertakes this exercise in order to arrive at some 'practical methods which our peasants may use for the practical arrangement of their farms'. In other words, his purpose was to evolve some methods of farm extension. But according to him, this can become possible, only after one fully understands 'the work mechanism of the economic machine which...organises a productive process within itself and, in its turn...influences the national economy as a whole' (p. 120).

In the course of his analysis, Chayanov lashes out at the conventional methods of analysing the organisational plans of peasant farms and the difficulties created by them in the solution of practical problems. He writes:

One of the commonest and most unfortunate difficulties in understanding the peasant farm is our characteristic statistical method of perceiving and thinking about it. Concepts of 1.78 horses compared with 8.34 persons of both sexes, 26.15 per cent without horses, a decline in the average number of livestock held depending on a rise in the percentage of literacy—these are the images and conceptions in which Russian economists are accustomed to think about the subject of our enquiry (peasant farm)... to think in this way about the peasant farm production machine is the same as to describe the structure of a modern steam engine as consisting of 39 per cent Fe, 31 per cent Cu, 16 per cent H2O and 14 per cent various organic substances (p. 118).

In Chayanov's view, for

practical work among living peasant farms...one must master more than the tools of classifications by sown area and the correlation coefficients of its elements to understand the peasant farm... One must seize hold of its living organisational ideas, the machinery of its individual economic organism which is 'the subjective toleological unity' of rational economic activity, i.e. running the farm... In brief, we will fully understand the basis and nature of the peasant farm only when in our constructs we turn it from an object of observation to a subject creating its own existence, and attempt to make clear to ourselves the internal considerations and causes by which it forms its organisational production plan and carries it into effect (p. 118).

These words could have been equally well said for Indian economists and their methods of farm planning and extension.

Chayanov recognises that 'each peasant farm is a constituent part of the general system of the national economy and is determined by those static and dynamic factors peculiar to its current phase of development... outside general national

economy analysis, we cannot fully understand the nature of a single private undertaking' (p. 120). Moreover, he also knows that 'the peasant farm's organisational plan at the present time is constructed, not by a system of connected logical structures and reckonings, but by force of succession and invitation of the experience and selection, over many years and often subconsciously, of successful methods of economic work' (p. 119). Nevertheless, he emphasises upon the necessity to examine 'certain organisational considerations of a general character' of the peasant family, which, as the basic economic unit of the economy, 'feels the pressure of national economic factors and reacts to the pressure'. The peasant family uses, within its power, all the opportunities of its natural and historical position and of the market situation in which it exists. But 'the most basic one which determines the whole character of the farm's structure is the degree to which the farm is linked with the market the development of commodity production in it' (p. 121).

With this background, Chayanov proceeds to analyse the organisational plans of peasant farms subsisting in regions of natural economy (where there is no market exchange) and in 'money-based economy'. And by comparing the two types of farms, he comes to the conclusion that 'as the commodity nature of the farm develops the farm's organisation in a non-monetary system, totally established by the consumer demands, begins to be more and more influenced by the market situation as regards farm composition, retaining the pressure of consumer demands only in determining the total volume of activity' (p. 125).

Thereafter, Chayanov discusses in great details the varied systems of agricultural production on peasant farms in widely different regions of Russia, and the many minute aspects of the technical, agronomic and economic elements in the organisational plans of peasant farms. In all these discussions, he is constantly at pains to show how the basic principle of his theory, viz. the labour-consumer balance, is actually operating in all the diverse conditions and situations of commodity pro-

duction. And in these pages, one gets an idea of the great mastery of technical detail that Chayanov possessed of Russia's agricultural conditions and of the vast complexity of peasant economic decisions on a large number of questions which in numerous ways affect the maximum utilisation of the family labour force and meeting family consumption demands. This complexity arises not merely from the influence of the natural and market conditions on the peasant farm, but also from the technical difficulties of crop-rotation, seasonality of agricultural production, specific types of land and capital equipment in use, and the need to coordinate all these elements in a manner so as to secure maximum utilisation of family labour and truly its maximum satisfaction of demands. It is largely these technical constraints which form the core of Chayanov's analysis in this chapter.

In chapter 5, Chayanov undertakes to 'establish that on the labour farm, capital as such is subject to other circulation laws and plays a different part in its composition than it does in capitalist undertakings' (p. 195). Availability of a particular amount of capital, by changing the conditions for labour use, greatly influences the achievement of the labour-consumer equilibrium. But according to Chayanov, on a peasant farm, capital 'does so as one of the conditions, indirectly, and not as the main factor' (p. 196).

In order to prove his contention, Chayanov compares 'the morphology of capital circulation on labour (family labour) and capitalist undertakings' with the help of Marx's schema of capitalist circulation on capitalist undertakings. Interestingly enough, he prefers to use here Marx's schema of exchange given in the first volume of Capital, rather than the schema of reproduction given in Volume II which properly deals with the process of capitalist circulation. This is probably because he has tried to eschew the use of hired labour and, consequently, the category of variable capital which is advanced in the form of wages by a capitalist undertaking. But since these schema are also explicitly used by him for capitalist undertakings, Chaya-

nov's use of them for his exposition appears to be unclear. Is it for getting Marx's theory of surplus value out of the way? In fact, Chayanov's total omission of the use of Marx's theory of value provides a major clue to his insistence on a 'separate' theory of peasant farm organisation.

From this comparison, Chayanov concludes that, while for a capitalist undertaking, the total volume of economic activity and the size of the work force as well as its renewal year after year are determined by the total size of the entrepreneur's capital, for the labour farm, the total volume of economic activity, as well as its renewal year after year, is determined by the peasant family's personal budget. This budget is determined by family size and the extent to which their demands are satisfied, which in turn determine 'the on-farm equilibrium' governing the family's total volume of economic activity. But this equilibrium itself largely depends upon the amount of capital available to family farm labour. This leads at first sight to a logical vicious circle.

Chayanov gets out of this vicious circle by trying to demonstrate empirically that a peasant labour farm tends to increase its capital intensity only up to a certain point of 'economic expenditure' per consumer, and after that ceases to be interested in further capital formation (p. 201). This means that in peasant farm organisation, 'there exists a certain limit to rational equipping of the work force with the means of production' beyond which the peasant family does not consider it economically gainful to increase capital intensity for raising the labour productivity of family labour.

Chayanov also brings out that so long as the 'farm's capital intensity has not yet reached its optimum, the growth rate for capital renewal in most cases exceeds that for personal budgets' (p. 202).

From these empirical findings, Chayanov explains theoretically as to how 'these (economic) expenditures...are included in the system of the basic economic equilibrium between the drudgery of labour and the farm family's demand'. So long as

the expenditure on capital formation leads to 'less drudgery of marginal labour... with greater demand satisfaction', it will be advantageous to the peasant family to undertake it. Conversely, if it leads to 'increased drudgery of marginal labour expenditure' and 'a reduction in demand satisfaction', it will not be advantageous. And it is through this basic mechanism of labour-consumer equilibrium that the processes of capital formation on the peasant family farms are governed.

Another aspect of capital formation which Chayanov analyses theoretically is the principle of allocation on a peasant farm of a given income in any given year between consumption and productive expenditure. Such allocation, according to him, is governed by a comparison 'of the level of well-being in agriculture (which is supposed to be linked to a particular amount of capital renewal in the current year', obtainable by a unit of expenditure, with the level of well-being which can be secured by its direct expenditure for consumption needs.

However, since Chayanov does not have 'empirical material with which to judge capital accumulation over a number of years on the same farm' (p. 218), he makes the assumption of 'a desire to maintain a constant level of well-being' in order to explain the phenomenon that growth of capital formation accompanies increases in gross incomes and parallels the increase in personal budgets.

All this appears very neoclassical and almost indistinguishable from the marginal utility school. Chayanov was extremely conscious of this fact. But he had his defence against any potential attack by the Marxists or the opponents of the Austrian school. He writes:

...many readers who strain through my theoretical formulas might include me in the Austrian school... I have already protested about this in the introduction... The marginal utility school, whose many services to economics I do not deny, attempted to derive from subjective evalua-

tions of the utility of objects an entire system of the national economy. This was its main error.

I do not do this. My whole analysis up to the present has been one of on-farm processes. I have striven to make clear to myself how from a private economic viewpoint the family farm's producing machine is organised, how it reacts to the particular effect of general economic factors pressing on it, how its volume is determined, and how capital formation takes place on it. It seems to me I have succeeded in showing that in its economic behaviour the family farm, lacking the category of wages, differs from the economic unit based on hired labour both in making its estimates and in labour motivation, and that capital circulation takes place on it in a somewhat different fashion from that on the usual capitalist unit, which has been analysed with such brilliance in Volume II of Capital (p. 220).

Chayanov further explains his reasons for his particular approach as follows:

Since without wages I could not give an objective estimate in value-terms of on-farm phenomena as regards determining net-profit as the difference between gross income and expenses, I had to introduce the hypothesis of the labourconsumer balance as a model which replaces the labourfamily's economic consciousness, or rather that of its head. I succeeded in showing that with the help of such an artificial machine the peasant farm can determine the volume of its economic work and react to all general economic factors, to price fluctuations, improvements in production techniques, to increased fertility, and to other factors generating rent in the economic sense. Finally, it can in a regular fashion carry out capital renewal and accumulation and circulate loan capital internally. In brief, it can exist in the present-day commodity structure of the economy as a whole (pp. 220-21).

It is thus evident that Chayanov developed his theory of peasant farm organisation only for the micro-level analysis of peasant family labour farm which, according to him, constituted a distinctly different type of economic organisation. His theory was relevant only for peasant family labour farms, and only for so long as they remained peasant family labour farms. As soon as they began to be organised on different lines, say under the pressures of the process of differentiation and proletarianisation enunciated by the Marxists, his theory would appear to have little relevance.

Consequently, Chayanov was also obliged to show how a peasant family labour farm would subsist in a system of national economy dominated by capitalist relations. And to this task he turned in the last two chapters of his book entitled as 'Consequences for the Economy following from the Family Farm's Organisational Features', and 'The Family Farm as a Component of the National Economy and Its Possible Forms of Development'.

These two chapters, according to the present reviewer, contain some highly suggestive insights and penetrating observations, particularly relevant for an analysis of the economic situation in peasant agrarian societies at any given point of time, particularly during the transition period when capitalist development penetrates into the various sectors of economic activity. Chayanov's rather broad analysis of rent and land prices, fluctuations in prices and wages, and location of agriculture in overpopulated agrarian economies during this transitional period is full of many promising lines of research for scholars in the field of agrarian economics.

Moreover, these are also the most pregnant chapters for an examination of Chayanov's theory from the Marxist point of view. Even if one agrees that, at least provisionally, the principle of peasant economic behaviour may be somewhat different from that of a capitalist entrepreneur, one has to examine whether it actually continues to remain so as and when peasant farming comes to be enmeshed in a national economy

dominated by capitalist relations in industry and trade. A peasant, according to the Marxists, is a unity of opposites insofar as he combines within himself the worker whom he himself employs and the entrepreneur. While Chayanov has stressed only upon the worker-aspect of this contradictory unity, the Marxists have contended that, historically, under continuous pressures of a commodity-capitalist economy, peasant farms tend to become differentiated more and more into capitalist and proletarianised farms. On the former, the peasants gradually develop into big peasants and begin cultivation with hired labour, while on the latter, the peasant farmers tend to be proletarianised in the process of competition against their capitalist counterparts.

And all this inevitably follows from the internal logic of the competitive capitalist mode of production and the theory of surplus value. Capitalism, having once emerged in the sectors of industry and trade, tends to spread inevitably into peasant agriculture as well on account of this internal logic. Chayanov does not appear to contest this view. However, he approaches the problem a little more pragmatically and modestly. Let us examine how Chayanov tackles this basic question of Marxist theory. In our view, his theory, unintentionally, appears to provide a confirmation and empirical elaboration of the Marxist theory of peasant agriculture and not its refutation. Chayanov is unable to see it merely because he eschews Marx's theory of value.

Chayanov poses the question as follows:

Are there any differences in the structure and functioning of the national economy in the phase of capitalist development in which number of family undertakings comprise a substantial part of production and the phase in which they have lost any significance?

According to Chayanov 'there are such differences' (p. 225). He writes:

Great family farm sectors of the national economy, in general always passive, are drawn into the capitalist system

of the economy and subordinated to the organising centres of capitalism. They themselves then begin to influence these centres with the peculiar features of their economic behaviour, and immediately in some sectors this influence starts to act as a determinant (p. 225) (Italics ours).

In the phase to which Chayanov refers, he contends that 'in reality... the classical homo economicus (visualised as a capitalist entrepreneur in economic theory from Ricardo to our day) often does not sit in the entrepreneur's chair, but is the organiser of family production. Therefore, the system of theoretical economics constructed on the entrepreneurial activity of homo economicus as a capitalist is clearly one-sided and is inadequate for learning about economic reality in all its complexity' (p. 225-26).

In order to demonstrate the validity of his approach, Chayanov starts by expounding the 'economics of a pure labour-unit culture'. By this term, he means that in such an economic system 'every homo economicus without exception is an organiser of a family economic unit, that hired labour and employees do not naturally exist, and that the national economy is formed from the interrelationships of these family units' (p. 226).

Chayanov analyses theoretically the complex problems of rent, land prices, formation of the agricultural produce markets, development of industrial crises, and finally location of agriculture in such a hypothetical national economy and comes to some very interesting conclusions.

For instance, on the formation of rents in such economies, Chayanov observes:

In overpopulated areas, in order to establish its internal equilibrium (labour-consumer balance) the peasant farm is obliged to force up intensification (of labour) far above the optimum (defined according to the criteria of wage-labour). Where payment per labour unit in the peasant farm's rural sectors is lower than the capitalist farm's wages, the peasant farm will consider it worth while to pay a much

higher rent than the capitalist rent. This will leave it a labour payment below capitalist farm wages. Nevertheless, given a severe pressure of the land, these 'hunger rents' can improve the peasant farm's internal equilibrium point (p. 235).

For the same reason, 'in overpopulated areas, the poorest peasant families will pay the highest prices for land' (p. 235). And Chayanov supports this conclusion with a reference to Marx's Capital, Volume III, adding: 'His view on land rent in the parcelled peasant farm and on the rents it pays are very close to our theories.'

How the peasant labour farm rents and prices tend to become common in the national economy, Chayanov generalises as follows:

...in areas of overpopulation, as farms increase and there is a relative shortage of land, evergrowing numbers of buyers and hirers appear able to pay prices higher than capitalist ones. At first, this has no effect on the single price of the capitalist market, and labour farm purchases take place as chance sporadic deals. But gradually they become more and more significant, and finally the labour farm valuation becomes decisive for the market and puts aside the capitalist-based price. Moreover, the labour farms, of course, are victorious not only in establishing the market price but also in the struggle for land; a clearly marked transfer from capitalists to labour farming takes place (p. 237).

Similar observations on the peculiarities of a peasant-farm based economy are made on a number of other processes like interest rates on capital, formation of agricultural prices, etc.

In his final chapter, Chayanov examines 'the possible forms of dynamic development' of the peasant farm in the contemporary phase of development of the Russian economy, its link with the capitalist economy, and the forms of their relationship to one another. He is fully aware that this group of questions 'always evokes the keenest interest and the sharpest of polemics'.

He also refers to the accusations against him that 'all our constructs are static, and that we are inclined to idealise the petty-bourgeois spirit of the present-day peasantry and to consider it in its present form almost an ideal economic organisation' (p. 242). But he hopes 'to rout both these accusations' with the help of his analysis in this chapter, 'something we did not do at all in the German edition' of 1923.

Beginning with the vast heterogeneity of composition amongst peasant farms, which had been empirically observed not merely in the 'current historical period', but also in 'very distant periods' in Russia, Chayanov argues against the Marxists 'that the heterogeneity cannot be fully explained by social differentiation' (p. 245).

He agrees 'that some such social differentiation (viz. gradual concentration of production in the hands of large peasant farms, which prepared the way for a further, purely capitalist concentration...parallel with the proletarianisation of small and medium peasants) does take place in the countryside'. But, according to him 'it depends not only on dynamic development but also considerably on the effect of demographic factors which follow from the nature of the peasant farm' (p. 245).

Chayanov proceeds to demonstrate this fact with abundant empirical materials on the size of farm classes. In this process, he discovers 'two powerful currents' of change in peasant farming: One, in which young undivided farms with small sown area mainly participate, is rising, expanding the volume of its farms under pressure of family growth. The other is declining, largely due to the division of old, complex families (p. 248). Again, he acknowledges 'that these currents are determined not only by the demographic processes of family growth and division. Farms may increase and decline with unchanged family composition due to purely economic causes. Apart from this, favourable and unfavourable market situations as regards the general economy can make it considerably easier or more difficult for the family to develop its activity in accordance with its own growth'. Nevertheless, according to

him 'there is no doubt at all that demographic causes play the leading part in these movements'.

Chayanov's analysis of the 'dynamic movements' of peasant farms depends a great deal on this capillary process of changes in farm size and composition, caused on the one hand by 'demographic pressures', and on the other by 'economic causes'. And the differentiation amongst peasant farms brought about as a result of only one of these two independent forces is distinguished by him, following some other scholars, as 'demographic differentiation' (p. 254). And he thinks, this distinction 'acquires exceptional production significance' in the context of his theory of labour-consumer balance.

However, apart from stressing upon the role of the demographic factor, he appears to concede the Marxist argument of social differentiation of peasant farms caused by economic causes. He says:

On the one hand, proletarianisation of the countryside, and, on the other, a certain development of capitalist production forms undoubtedly take place there... where a general economic setting is formed suitable for such economic organisation, these forms inevitably appear (p. 255).

However, Chayanov thinks that 'within Russian peasantry, social differentiation is still in its initial stages', and he did not 'undertake to judge how far the semilabour, semicapitalist "farmer" type unit will be able to improve its position with the tendency of the Russian peasantry for enclosed farms' (p. 256). He merely hoped 'that the labour farm, strengthened by cooperative bodies, will be able to defend its positions against large-scale, capitalist type farms as it did in former times' (p. 256).

This hope of Chayanov holds considerable interest for Indian scholars, because it was precisely on this hope that the recommendations of the Congress Agrarian Reforms Committee of 1949 (Kumarappa Committee) were also based. It will be of great interest to examine whether Chayanov's theories, and the

hopes generated by them, have some real relevance and lessons for India as well. In our opinion, they have considerable importance for India.

In the remaining part of the chapter, Chayanov leaves aside the process of 'demographic differentiation', which, according to him 'depends on biological family growth, and is, essentially speaking, static'. He then concentrates on the 'dynamic processes of agricultural proletarianisation and concentration of production, leading to large-scale production units based on hired labour' (p. 257). These processes were developing throughout the world, and in the USSR in particular, 'at a rate much slower than was expected at the end of the nineteenth century' (p. 257). He is, therefore, concerned to examine how, 'while in a production sense concentration in agriculture is scarcely reflected in the formation of new large-scale undertakings, in an economic sense capitalism as a general economic system makes great headway in agriculture' (p. 257).

In the course of his analysis, Chayanov refers to Lenin's and a few other scholars' writings to 'indicate that bringing agriculture into the general capitalist system need by no means involve the creation of very large capitalistically organised production units based on hired labour' (p. 257). Capitalism can secure this 'in the form of very large-scale tracking undertakings (drawing) masses of scattered peasant farms into its sphere of influence, and economically (subordinating) them to its influence'. This can be done by developing oppressive credit and trade conditions. And through these links, 'every small peasant undertaking becomes an organic part of the world economy, and experiences the world's general economic life, is powerfully directed in its organisation by the capitalistic world's economic demands, and in its turn, affects the whole system of the world economy' (p. 258).

All these processes, which Chayanov discusses in graphic details with Russian examples, 'convert agriculture, despite the evident scattered and independent nature of the small commodity producers, into an economic system concentrated in a

series of largest undertakings, and through them, entering the sphere controlled by the most advanced forms of finance capitalism' (p. 258). And compared with this process which Chayanov names as 'vertical capitalist concentration', 'the transfer of a considerable number of farmers from a semiproletarian to a clearly proletarian position, would be a small detail. If this detail does not take place, it is evidently because capitalist exploitation gives a higher percentage from vertical than from horizontal concentration. Moreover, to a considerable extent it transfers the undertakings' risk from the owner of the capital to the farmer. This form of concentration in agricultural production is characteristic of almost all young agricultural countries, which produce mass uniform produce for distant, mainly export markets' (p. 262-63).

This is Chayanov's generalisation about the forms in which peasant agriculture is gradually subordinated to capitalism in the historical process. And he also describes 'agricultural cooperation', which emerged in many capitalist countries in the activities of processing, marketing and credit, also as nothing but 'a deep process of vertical concentration'. The need for cooperation amongst peasants arose mainly from 'the relative weakness of local capital'—or of local entrepreneur capitalists which could be due to either 'their own absolute weakness' or 'the wealth of the peasant farm' or even from the participation of the state which provides finance for the resources of the cooperatives. But once cooperation amongst peasants had been established, 'this process in its cooperation forms goes much deeper than in its capitalist forms, since the peasant himself hands over to cooperative forms of concentration sectors of his farm that capitalism never succeeds in detaching from it in the course of their struggle' (p. 265).

From these premises, Chayanov derives his policy prescription for Soviet agricultural policy in the contemporary period. He recognised that the processing industry, mining and transport, etc. in the USSR were concentrated in very large undertakings and were managed by or were under the control of

state bodies. Unlike them, however, agriculture consisted of '18.5 million scattered small farms, developing under pressure from elemental factors and little subject to any control' (p. 265). While the aim of policy had to be 'direct organisational control of the elemental farm', during the transitional period, until the system of state capitalism in the USSR was transformed into a socialist economic system, 'the main methods in the reorganisation of agriculture will be those of vertical concentration' (p. 265-66). This was because, whatever horizontal concentration was taking place in the USSR at that period (before collectivisation) 'is not, and cannot be, of such massive size that we could be able to construct on it our whole policy of agricultural concentration' (p. 267). Consequently, 'the main form for the concentration of peasant farms can be only vertical concentration and, moreover, in its cooperative forms, since only in those forms will it be organically linked with agricultural production and be able to spread to its proper depth and extent' (p. 267).

Thus, according to Chayanov 'cooperative collectivisation' was the only course possible under the then prevailing condition, 'almost the only method of involving our agriculture in the system of state capitalism' (p. 267). Chayanov held that 'this process will last a long time... Just as capitalism passed through successive phases of development from the primary forms of elementary trading capitalism and from the home workshop to factory and the formation of trusts embracing the whole of industries, so state capitalism, developing with cooperative forms as regards agriculture should inevitably pass through such a series in its historical development' (p. 268). Thus, in Chayanov's view, cooperative vertical concentration was the best and the only method of taking the peasant farm towards horizontal concentration, through a number of intermediate evolutionary forms, which he vividly describes in the last pages of his book.

This is the hard core of Chayanov's theory of peasant farm organisation. We are leaving out the other parts of the book in our review because they depend essentially on the main book which we have reviewed, and also a number of minor points of interpretation on which one could argue with the editors.

Its theoretical importance and relevance for India should be more than obvious, at least to those who are conversant with the conditions of her agriculture and the details of her peasant farm organisation. Its practical implications for India's agrarian policy, however, are no less important. There are a number of very substantial and significant elements in Chayanov's theory which bear almost directly on our policy problems. This is particularly so in relation to our policies of agricultural cooperation in marketing, processing and credit. There is an important school of thought in India which has views on the development of cooperation almost identical with Chayanov. Consequently, the publication of this book constitutes a landmark, especially for Indian economists, who can study and discuss its content with very great profit, both in the development of an appropriate theory of peasant farm development as well as in the solution of many practical problems.

However, even in the wider sphere of academic debate on the growth theory, the book may well succeed in contributing something altogether new. This would largely depend upon how much interest it arouses amongst economists both of the developed and the developing countries. Peasant economies subsist in vast areas of the contemporary developing world, however much they may have vanished in the developed regions. The Russian peasant's transformation into a collective farmer has been a unique experience not merely for the Soviet Union but for the world as a whole. And yet, paradoxically enough, scholars throughout the world have written about the collectivisation of agriculture in Russia, while the earlier thinking on the peculiar characteristics of peasant agriculture and its 'laws of motion' within the framework of a capitalist or noncapitalist economy has been a virtual terra incognita for the English-knowing world.

It has been well known that, both in Russia and Eastern

Europe, strong and vigorous peasant movements had flourished for many years. And diverse intellectual schools of thought had emerged there which had provided the ideological basis and framework of these political movements. It is also widely known that Marx, Marxists and Marxism had engaged in numerous debates and controversies with these movements. They had devoted considerable attention to the problems of the peasant and his fate in a capitalist economic system. This has been particularly brought out in David Mitrany's book Marx Against the Peasant—A Study in Social Dogmatism published in 1951, already mentioned. Yet, surprisingly, the English-knowing scholars have remained singularly apathetic to these intellectual currents and cross-currents, debates, discussions and controversies, which had affected vast areas and large numbers of people in the Eastern regions of Europe until not so long ago.

This is borne out by the meagre writing, original or in translation, in the form of books or articles, that one finds on these matters in the English language. David Mitrany's book remains almost the only source of information on these debates and controversies, theories and countertheories, which had raged in these countries which later came to be screened behind an 'iron curtain'. And that book, in no sense of the word is 'scientific' or 'academic' enough to answer all queries of the social scientist.

Similarly, in regard to periodical literature, there has been little theoretical writing on these subjects. A search into the pages of the reputed academic journals like the Economic Journal and the American Economic Review, which have been the repositories of western theoretical economics since the 1880's, for any inkling of these academic debates and controversies amongst Russian and East European social scientists has been in vain. They have just chosen to ignore this vast academic heritage, perhaps because it had flourished in countries which have today passed into the communist orbit. Who knows that a resurgence of this academic heritage might

lead to similar results in vast areas of the world once again!

In this background, the publication of this major theoretical work Peasant Farm Organisation of Professor A. V. Chayanov indicates a major step forward taken by a few interested scholars. They have taken all the pains necessary to dig out and discover the writings of one whose 'name and works have slipped into obscurity in both Europe and America' (p. v). And they deserve the sincerest gratitude of all those scholars and research workers, particularly of countries with vast peasant sectors in agriculture, for whom this book would or ought to serve as a major text book on the theory of agricultural development in a peasant economy.

Indian Materialism

—A Retrospect

DEBIPRASAD CHATTOPADHYAYA

THE CENTENARY OF THE Das Kapital is a suitable occasion for us to look back at our own materialistic heritage. We are frequently told that the philosophy of Karl Marx, being but uncompromising materialism, is totally alien to the spirit of Indian wisdom. Its acceptance, therefore, by an Indian today can at best be arbitrary and in open violation of his national tradition. I am going to argue, however, that the actual fact is just the contrary. In other words, materialism, far from being opposed to Indian wisdom, does represent by far the most significant trend of Indian philosophy. For this purpose it is necessary first of all to reexamine the well-known systems of Indian philosophy. The usually accepted view of the place of materialism in these is in need of serious revision.

I

WE MAY BEGIN WITH Kautilya's Arthasastra, with the discovery of which, as Jacobi rightly claims, 'we have acquired a positive starting point for constructing the history of Indian philosophy'.

It is well known, of course, that the Arthasastra is not a treatise on philosophy, nor any compendium of the Indian

philosophical systems like that of Madhava or Haribhadra. Why, then, Jacobi considers it so important for constructing the history of Indian philosophy? Though primarily a work on ancient politics, it is the earliest available Indian literature which contains, in its opening chapters, a systematic and clear-cut classification of the recognised 'branches of knowledge' (vidya) indicating the real place of the philosophical systems in these. We may follow Jacobi's masterly analysis of the data contained in the Arthasastra, though, on considerations purely objective, we shall have to break away from him on a question actually crucial for understanding the material-istic tradition in ancient Indian philosophy.

The main points of Kautilya throwing light on the ancient Indian philosophical situation may be summed up as follows. First, he recognises only four branches of knowledge and calls these anviksiki, trayi, varta and dandaniti. Secondly, he asserts that as anviksiki are to be acknowledged three, and only three, systems of Indian philosophy. He calls these Samkhya, Yoga and Lokayata.

A few words about the terms actually used by Kautilya to indicate the branches of knowledge may be useful for our further discussion. Jacobi renders these as philosophy, theology, science of agriculture and statecraft respectively. But these equivalents—particularly the first two—are to be taken with some caution. Anviksiki is usually considered to be the old Indian word for logic (tarka-vidya) or the study of inference (anumana-vidya). Therefore, Jacobi's rendering of it as philosophy is to be taken with this reservation that Kautilya himself does not allow within his concept of philosophy any place for the alleged mystical or intuitive approach to reality. Philosophy for him is essentially logical or rational. Again, the word trayi does stand for theology, but theology of a special brand only. It literally means 'The Three' and there is no doubt that it refers to the Vedas, which, in the traditional view, are inclusive of the Upanisads (or Vedanta, literally 'the Veda-end'). Therefore, if by anviksiki Kautilya means philosophy, from the

sharp difference drawn by him between it and trayi, it follows that the Vedanta system, which is nothing but a systematisation of the Upanisadic ideas, has no place in Kautilya's scheme of philosophy. So also is the Purva-Mimamsa, which intends to be nothing but a systematisation of the ritualistic contents of the Vedas (its karma-kanda). Varta strictly means the knowledge of agriculture, cattle-raising and trade, and dandaniti does mean the statecraft, though only of the early feudal context.

Such, then, are the branches of knowledge recognised by Kautilya. However, it needs to be noted at once that this scheme of four-fold vidyas was not unanimously accepted in the ancient days. Kautilya himself mentions different views on this point, though for the purpose of differing from these. Thus, according to the Manavas (i.e. followers of Manu), there are only three branches of knowledge, viz. trayi, varta and dandaniti. What, then, is their attitude to anviksiki? Kautilya says that in their view it is already included in trayi. This means that logic is subservient to the Vedas, reason to revelation or the scriptures. It remains for us to see what devastation awaits Indian philosophy from the eventual development of this tendency. For the moment it is important to note that that Kautilya himself has no sympathy for it. Evidently, he shares the other ancient trend which not only acknowledges the autonomy of logic but even goes to the extent of glorifying it as something like the 'science of sciences and the art of arts'. Hence is the famous verse in the Arthasastra: 'Anviksiki has always been considered to be the lamp of all the sciences, a means of performing all the works and the support of all duties'. It is no wonder, therefore, that Vatsyayana, while commenting on the earliest treatise on Indian logic (Nyayasutra) should quote this verse with great enthusiasm, though with what consistency is to be seen later.

What is most striking about Kautilya's statement and what, when properly understood, provides us with a new starting point for the real understanding of the materialistic heritage

of ancient Indian wisdom, is the definite assertion that under anviksiki are to be placed three—and specifically three—systems of Indian philosophy. These he calls Samkhya, Yoga and Lokayata. There is no ambiguity whatsoever about Kautilya on this point and Jacobi comments: 'According to Kautilya, the essence of philosophy lies in systematic investigation and logical demonstration; in his judgement these conditions are satisfied only (iti) by Samkhya, Yoga and Lokayata.'

The materialism of the Lokayatas is well known, as well known is their blunt heterodoxy. They even go to the extent of ridiculing the Vedic priests as but cunning impostors and thieves. By contrast, the systems of philosophy usually referred to as Samkhya and Yoga—i.e. the philosophies associated with the names of Kapila and Patanjali—are generally accepted by Indian orthodoxy as belonging to its own tradition. Besides, though it is impossible to deny the atheism of Samkhya, the basic innovation of Patanjali's Yoga is the reassertion of god within the Samkhya scheme of reality. In any case, none of these two systems will be accepted as materialistic in the sense in which Lokayata is accepted. In such circumstances what is considered most amazing about Kautilya's statement is the way in which he freely associates the three philosophies. What, after all, can there be common between Samkhya, Yoga and Lokayata? Yet there is no doubt that in Kautilya's view these are closely related. As a matter of fact, nothing else in Indian wisdom has for him any claim to be called anviksiki. This, again, is apparently strange. His silence over Buddhism and Jainism may perhaps be explained by his personal sectarian animosity. His skipping over of Vedanta and Purva-Mimamsa is explained by Jacobi by the circumstance that these are already included by him within trayi or the Vedas. But how are we to account for his omission of the Nyaya-Vaisesika, which, among the traditionally accepted six systems of Indian philosophy, represents the standpoint of anviksiki or logic par excellence?

Are we then to look at the entire statement of Kautilya as

being unrealistic, having little or no respect for the actual historical situation? The fact is just the reverse. We have in this an interesting indication of the real philosophical situation in ancient India the importance of which is so far more or less ignored. And the modern scholars miss it, mainly because of their preoccupation with a wrong question. They are above all bothered to find out how can Kautilya assign to Lokayata the same or a similar status as that of Samkhya and Yoga. While concentrating on this, they ignore the more important question, viz. what can the word Yoga mean in Kautilya's enumeration of anviksiki? This question, properly answered, solves the apparent mystery of Kautilya's silence over the Nyaya-Vaisesika. However, before we take up this question, it is necessary to clarify the basic confusion of Jacobi and other modern scholars.

They are too readily inclined to believe that in Kautilya's statement, Yoga stands for the so-called Yoga system of Patanjali. Yet this is absurd and palpably so. First, Patanjali's Yoga is not primarily any philosophical view at all. It means a body of practices which come down from a hoary antiquity and are imagined to be conducive to certain supernatural or mystical powers. Secondly, though Patanjali is above all interested in discussing these practices, he also discusses a certain philosophical view; but the philosophical view has neither any intrinsic connection with the practices nor even a great deal of self-consistency. Except for the admission of god, Patanjali's philosophy is nothing but Samkhya, as a result of which it is called sesvara-samkhya or 'Samkhya with God'. Such a peculiar name itself shows how arbitrary is the assumption of god in the so-called Yoga system, an emphatic denial of god being one of the characteristic features of the Samkhya philosophy. What needs to be said about this has already been said by Garbe:

The object of the Yoga system in inserting the conception of a personal God into the Samkhya is merely to satisfy the theists and to facilitate the propagation of the theory of the

universe expounded in the Samkhya. The idea of God, far from being organically interwoven in the Yoga system, is only loosely inserted. In the Yoga-sutra the passages that treat of God stand disconnected, and are, indeed, in direct contradiction to the contents and aim of the system. God neither creates the universe, nor does He rule it. He does not reward or punish the actions of men, and the latter do not regard union with Him as the supreme object of their endeavour...It is evident that this is no God in our sense of the term, and that we have to do with perplexing speculations the aim of which is to conceal the originally atheistic character of the system, and to bring the assumption of God into bare accord with its fundamental teaching. Assuredly, these speculations prove, were there any need at all for proof, that in the real Samkhya-Yoga there is no room for a personal God.

Just as this god is to Samkhya quite arbitrary and extrinsic, so is the Samkhya philosophy itself to the Yoga practices. The practices are in fact immensely old. Concrete material relics of the Indus civilisation indicate that these were prevalent in the country as early as the third millennium BC. In course of time these become the floating possessions as it were of all sorts of religious beliefs and even philosophical speculations, of which Samkhya is but one. As S. N. Dasgupta observes,

the Yoga practices had undergone diverse changes in diverse schools, but none of these shows any predilection for the Samkhya. Thus the Yoga practices grew in accordance with the doctrines of the Saivas and Saktas... they grew in another direction as the Hathayoga, which was supposed to produce mystical and magical feats through constant practices of elaborate nervous exercises, which are also associated with healing and other supernatural powers... Patanjali was probably the most notable person for he not only collected the different forms of Yoga practices, and gleaned the diverse ideas which were or could be associated with the Yoga, but grafted them all on the Samkhya metaphysics, and gave them the form in which they have been

handed down to us. Vijnana Bhiksu and Vacaspati Misra...agree with us in holding that Patanjali was not the founder of the Yoga, but an editor.

More words are not necessary. It is already obvious why there is nothing in the so-called Yoga system of Patanjali that answers even vaguely to Kautilya's conception of anviksiki and as such it is clearly inconceivable that Kautilya refers to this as a form of anviksiki. What, then, can he possibly mean by the word Yoga? A clear clue to this is to be found in Vatsyayana's commentary on the Nyaya-sutra.

The Nyaya-sutra defines pratitantra-siddhanta or 'proved doctrine on the basis of one's own branch of learning' as that 'which is accepted in one's own allied branch of learning (samana-tantra) but unaccepted in other branches of learning (para-tantra)'. Comments Vatsyayana: 'For example, (the pratitantra-siddhanta) of the Samkhyas are: the nonexistent never comes to being, nor the existent absolutely destroyed... (The pratitantra-siddhanta) of the followers of Yoga are: ... the nonexistent comes into being and the existent in absolutely destroyed.' Apart from the fact that the context clearly precludes the possibility of the Samkhya and what is referred to as the Yoga being allied branches of learning—which is by itself a proof that by Yoga here Vatsyayana cannot mean the so-called Yoga system of Patanjali—to the students of Indian philosophy it is obvious that he is referring here to two wellknown views of causality—viz. sat-karya-vada and asat-karyavada—of which the first is as characteristic of the Samkhya system (and of course of Patanjali's Yoga) as the second that of the Nyaya-Vaisesika. In short, by Yoga Vatsyayana means here nothing but the Nyaya-Vaisesika.

Nor is there anything arbitrary about such a use of the word Yoga. Thanks to the stupendous scholarship of Mm. Phanibhusana Tarkavagisa, himself one of the greatest of the recent exponents of the Nyaya-Vaisesika philosophy, we are now in possession of solid evidence to see that Yoga is in fact the old name of Nyaya-Vaisesika. We do not unfortunately have

the scope here to quote Mm. Phanibhusana at length. Here is only a brief summary of his comments:

Vatsyayana mentions a number of theses maintained by the followers of Yoga. But whom does he refer to by this? They cannot obviously be the followers of the well-known Yoga system of Patanjali, because the theses referred to are flatly contrary to their doctrines. On the other hand, by the followers of Yoga we can understand here only the Naiyayikas and Vaisesikas, because the doctrines mentioned by Vatsyayana as their pratitantra-siddhanta are characteristic only of the Naiyayikas and Vaisesikas. In any case, the Vaisesika system was known by the name Yoga even in ancient times. In accordance with this tradition, the Jaina philosopher Vidyananda Svami, in his Patrapariksa, quotes a sutra of Kanada and adds, 'as it is said by the followers of Yoga'. Gunaratna also opens his discussion of Nyaya with the words, 'The Naiyayikas, also known as Yaugas...' Vatsyayana also follows the same ancient tradition and mentions the doctrines characteristic Vaisesikas as those of the followers of Yoga. But these doctrines are also the doctrines of the Naiyayikas. Thus, by the followers of Yoga are to be understood the Nyaya-Vaisesikas.

But what accounts for this ancient tradition? Why, in other words, are the Nyaya-Vaisesikas referred to as the followers of Yoga? The more orthodox explanation is that because they are traditionally known as Saiva Yogins. Prasastapada, e.g. says that Kanada received insight into the Vaisesika doctrines as a result of pleasing Mahesvara with his Yogic practices. As against such patent mythologies, Phanibhusana has a remarkably logical explanation. The word yoga also means samyoga or conjunction. The Nyaya-Vaisesikas are anciently known as the followers of Yoga because they subscribe to the doctrine of creation through the conjunction of the atoms. In short, the philosophy of atomic conjunction is known from ancient times as the Yoga philosophy. We have already seen why it is impossible for Kautilya to mean by Yoga the so-called Yoga system of Patanjali. We

can now see why by this name he can refer only to the Nyaya-Vaisesika.

Jacobi completely misses this point and is led to conjecture on the possible cause of Kautilya's silence over the Nyaya-Vaisesika. This appears to him specially peculiar, because, as he rightly notes, the Nyaya-Vaisesika fulfils the conditions demanded by Kautilya of anviksiki in a higher degree than any other Indian philosophical system. 'All the more it is, therefore, of importance', says he, 'that Kautilya does not mention by name Nyaya and Vaisesika while enumerating the systems recognised by him as anviksiki. From this we can draw the inference with certainty that at his time, i.e. 300 BC, Nyaya and Vaisesika had not yet received the recognition as philosophical systems, not to speak of the existence of the sutras of Gautama and Kanada in the form in which they are now before us.'

We need not digress here on the question of the possible dates of these sutra works, or, for that matter, of Kautilya's Arthasastra itself, which is really not as simple as it appears to the Indologists of Jacobi's generation. What needs nevertheless to be noted is that the very literary form in which the works of Kanada and Gautama come down to us—i.e. the form of the cryptic mnemonical aphorisms—presupposes a long line of discussions and transmission of ideas through generations. Therefore, even assuming that the actual date of the two sutras is later than that of the Arthasastra, we have no sure ground to argue that in Kautilya's time the Nyaya-Vaisesika was yet to receive philosophical recognition proper. Besides, the internal evidences of these sutras clearly show that the philosophy itself is much older than its expression in the form of these sutras.

In the light of all these, we may ask ourselves two simple questions. Is the mention of Yoga in Kautilya's list of anviksiki expected to make any real sense? If so, what sense can it possibly make except as a reference to the Nyaya-Vaisesika or the philosophy of atomic conjunction, though by its ancient name?

II

WE MAY NOW SUM UP the results we have reached so far.

As against an ancient trend trying to make reason subservient to revelation, Kautilya maintains that the logical approach to reality is to be clearly distinguished from the scriptural one, that anviksiki is as independent a vidya as trayi. This explains his silence over the Purva-mimamsa and the Vedanta systems, which are the rationalisations of the Vedas or trayi. Secondly, as the logical approach to reality, Kautilya is aware of three and only three philosophies. He calls these Samkhya, Yoga and Lokayata, meaning thereby Samkhya, Nyaya-Vaisesika and Lokayata. Assuming, therefore, that he includes Purva-mimamsa and Vedanta in trayi, it needs to be noted that Kautilya's classification of the vidyas takes note of all the major philosophical systems of ancient India outside, of course, Buddhism and Jainism, into the complexities of which we need not at the moment enter. It will indeed demand drastic revision of the usually accepted view of the materialistic tradition in ancient India if we can now see that all the systems mentioned by Kautilya as anviksiki are, in their original or ancient form, nothing but materialistic philosophies. This will amount to the admission that apart from the rationalisation of the scriptures, i.e. the Purva-mimamsa and Vedanta, the whole of the philosophical tradition proper known to Kautilya is the tradition of materialism. To this may perhaps be added that even the Purvamimamsa as philosophy is starkly atheistic and at least precariously near materialism. However, let us not digress to discuss the Purva-mimamsa here. Let us concentrate instead only on the systems mentioned by Kautilya as philosophy proper. My contention is that all these, namely Samkhya, Nyaya-Vaisesika and Lokayata, do in fact represent the standpoint of materialism, differing from each other mainly in their conception of matter.

As far as Lokayata is concerned, nobody will seriously question all these. As for Samkhya and Nyaya-Vaisesika, my contention is that only the later and distorted versions of these

philosophies, resulting primarily from large-scale transfusions of Vedantic ideas into the former and theistic beliefs into the latter, prevent the modern scholars to see their originally materialistic character. Still, at least the atheism of Samkhya is not questioned. Even the later work Samkhya-sutra returns again and again to demonstrate the denial of god. Further, as I have elaborately argued elsewhere, this philosophy, known to its opponents as above all 'the doctrine of unconscious primeval matter being the original cause of the world', must have originally been unquestionably materialistic. Instead of repeating all these arguments over again, I should prefer to concentrate here mainly on the Nyaya-Vaisesika.

To begin with, nothing is apparently more strange than to claim that the Nyaya-Vaisesika is a materialistic philosophy. Are we to overlook the fact that the greatest work on Indian theism called the Nyayakusumanjali comes from Udayana, a great Naiyayika? Are we too overlook further that from the same author we get the Atmatattvaviveka, another classic on the soul and its salvation? Surely not. It is surely impossible to deny that the later representatives of the Nyaya-Vaisesika, with all their enthusiasm for Indian logic and atomism, are also devout theists and exponents of what is called adhyatmavidya, i.e. 'a philosophy which recognises the existence of the soul and leads to its liberation' (Jacobi). Such a version of the Nyaya-Vaisesika, therefore, need not and must not be considered as materialism. At the same time it is necessary to note that this enthusiasm for god and soul is shown by the later champions of the Nyaya--Vaisesika in open violation to its original spirit, and, what is worse, clearly at the cost of logical consistency.

We may begin with an analysis of what is clearly contained in the Nyaya-sutra itself. Of the total 528 aphorisms in it, only one contains the word 'god' (isvara), and, even on the admission of the most theistic-minded interpreter, this aphorism is of the nature of a purvapaksa, i.e. the statement of a rival view that the author refutes in the very next sutra.

The rival view is: 'God is the cause, because of the observed futility of human actions in producing their results.' (Nyaya-sutra iv.1.19). This is refuted by the argument: 'No. In the absence of human action there is no result.' (iv.1.20). I am fully aware of the theological niceties discovered by the theistic interpreters in these two sutras. But they do it in open violation of their plain meaning. On the other hand, the controversy referred to here is quite well known to the students of ancient Indian philosophy. According to a certain view, human actions by themselves cannot produce their own results and as such it is necessary to postulate god as the real dispenser thereof. Gautama refutes this view and argues that human actions by themselves produce their results and therefore god is only an undue assumption.

The aphorism occurring immediately after is extremely brief and is in the form of an incomplete sentence. Literally it means: 'Because of being produced by it,—there is no proof.' (iv.1.21). What does it really mean? The way to interpret such aphorisms is to seek the missing words in the immediate context or to connect the incomplete sentence with the sentence of the preceding sutra. When we do this, the full meaning leaps before our eyes: 'Because the result of human action is being produced by the action itself—there is no proof for the existence of god.'

About a hundred pages of wearisome theology are produced by Mm. Phanibhusana Tarkavagisa in interpreting the last of the above sutras, completely ignoring the possibility of there being in these three sutras one of the best-known arguments in favour of ancient Indian atheism. As a matter of fact, primarily on the same ground the Purva-mimamsa philosophers reject god and it is also one of the main grounds on which his existence is disproved in the Samkhya (Samkhya-sutra v. 2-5). There is nothing to prevent Gautama to share the spirit of Jaimini and Kapila on the question of god.

Pending further researches, it is perhaps premature to speculate on what led the later representatives of the Nyaya-

Vaisesika to break away from its original spirit and to become vigorous defenders of Indian theism. However, with all their zeal to prove the omnipotent and omniscient creator and moral governor of the world, they succeed only in finding the actual function of god extremely circumscribed within the basic structure of their philosophy. The atoms of which the world is made being eternal like empty space (akasa), god has in fact nothing to do as far as the material cause of the world is concerned. Further, the results of human actions being determined by the nature of the actions themselves, god's glory as the moral governor is at best nominal. In the ultimate analysis, god's function in creation appears to be nothing more than effecting the first conjunction of two atoms, more or less in the way in which the potter produces the pot by joining the two parts (kapalas). Left only with this function, the omnipotent creator is acclaimed as the efficient cause or nimitta-karana of the world.

But the question, again, is: How far such a conception of the nimitta-karana is acceptable to the author of the Nyaya-sutra himself? Three aphorisms of the work, occurring immediately after the three we have quoted, suggest the answer. Let us not be carried away by the stupendous capacity for textual twisting shown by some of the later commentators and let us concentrate on the plain meanings of these three sutras.

Sutra iv.1.22: 'Existent things originate without any efficient cause (i.e. are due to the mere material cause), because of the observed sharpness of the thorn etc.'

Sutra iv.1.23: 'Absence of the efficient cause, being itself a form of efficient cause, the (alleged) absence of the efficient cause is untenable.'

Sutra iv.1.24: 'The objection is unsustained, because of the clear difference in meaning of (there exists) "an efficient cause" and the "absence of the efficient cause".'

How are we to understand these sutras? The first point to be noted is that with the third of the sutras above ends a section (prakarana) of the work. This means that this sutra

contains the final position of the author himself on the topic concerned. But this *sutra* is clearly in answer to the objection raised in the *sutra* immediately preceding it. In other words, the second of the above *sutras* represents a *purvapaksa*. But the usual practice in Indian philosophical writing is to raise a possible objection (*purvapaksa*) immediately after stating one's own position. Assuming this textual order, therefore, we are to admit that the first of the above three *sutras* mentions the position of Gautama himself.

In other words, the discussion contained in these three sutras is as follows: Gautama denies that there is any efficient cause of the world. To this is raised the objection that the very denial of the efficient cause amounts to a tacit assumption of it. Gautama answers that such a verbal manoeuvre is futile, because the assumption of the efficient cause and its denial have clearly different meanings.

This section immediately follows the one in which Gautama disproves the existence of god. The logical sequence of the two sections is thus clear. The denial of god entails the question: But is there no efficient cause of the world? Gautama argues that there is no such cause. But, how can the world come into being out of the mere material cause? Gautama's answer to it is extremely striking: 'because of the observed sharpness of the thorn etc.' This is undoubtedly a reference to what is known in Indian philosophy as svabhavavada or the doctrine of natural causation. The typical verse expressing the doctrine is: 'Who made the thorn sharp and the beasts and birds so varied, the sugarcane sweet and the nim bitter? All these are produced by their mere nature.'

Referring cryptically to this doctrine of svabhava by the expression 'because of the observed sharpness of the thorn etc.', Gautama argues that the assumption of any efficient cause of the world is redundant, because the material cause (the atoms) by the laws inherent in its nature produces the world.

This argument is decisive. In Indian philosophy the doctrine of svabhava is characteristic only of the materialist. It is

usually attributed to the Lokayatas alone, though, as I have argued elsewhere, on evidences absolutely indisputable, we are obliged also to attribute it to the Samkhyas.

We can now see the full justification of Kautilya's mention of Samkhya and Nyaya-Vaisesika along with Lokayata. The three philosophies represent the real rationalistic approach and, at least as Kautilya knows these, these are also bluntly atheistic and even materialistic. This leads us to revise drastically the usually accepted idea of the materialistic tradition in ancient Indian philosophy, an idea according to which materialism proper is confined only to the Lokayatas.

Our discussion could have ended here but for one circumstance. The materialistic character of the original Nyaya-Vaisesika will be seriously questioned on a different ground altogether. This philosophy is usually assumed to be a form of atma-vidya or adhyatma-vidya, i.e. a doctrine of soul and its salvation. If so, how can we call it materialistic?

But this claim itself is clearly artificial. Vatsyayana, who is among the earliest to make such a claim in favour of Nyaya, seems to be already aware of its real difficulty. The fact is that the Nyaya-sutra, taken as a whole, is primarily a discussion of logical issues, or, more strictly, of topics relating to the technique of debate. Though it opens with the assertion that a knowledge of these topics—of the sixteen categories of Nyaya—leads to the 'highest good', the concluding portion of the work shows no concern at all for the concept of the 'highest good' and simply discusses the well-known techniques of debate. If Nyaya is intended to be a philosophy of the self and its salvation, why does the Nyaya-sutra itself attach such an overwhelming importance to pramana (i.e. the instrument of valid knowledge), samsaya (doubt), etc.? Vatsyayana answers,

For the benefit of mankind, four branches of knowledge—each having its unique subject-matter (prasthana)—are prescribed. Of these, this study of logic (anviksiki-vidya) is the fourth and its unique subject-matter consists of these

categories, namely doubt, etc. Without the separate mention of these (in the opening aphorism of the Nyaya-sutra), it (i.e. logic) would have been a mere study of the self (adhyatma-vidya), like Upanisad. Therefore, by mentioning the categories of doubt etc., it is shown to have its unique subject-matter. (on Nyaya-sutra i.1.1).

The recognition of the four branches of knowledge with subject-matter characteristic of each is clearly reminiscent of Kautilya, whose glorification of anviksiki Vatsyayana quotes with enthusiasm. At the same time, he clearly deviates from Kautilya when he says that without the specific mention of the unique subject-matter, anviksiki would have been mere adhyatma-vidya like Upanisad. It means that in spite of being an independent branch of knowledge with its unique subject-matter, anviksiki is somehow or other also an adhyatma-vidya like Upanisad. As a matter of fact, Vatsyayana goes to the extent of saying,

Now, this anviksiki, which is differentiated from the other branches of knowledge by the categories like pramana etc., is specially mentioned (by Kautilya) in the enumeration of the branches of knowledge as the lamp of all the sciences, a means of performing all the works and the support of all duties. The knowledge of truth and the attainment of the summum bonum are to be understood in accordance with the respective branches of study. In this particular branch of study called adhyatma-vidya, the knowledge of truth means the knowledge of the self etc. and the attainment of the summum bonum means liberation. (on Nyaya-sutra i.1.1.).

This is flatly incongruous. What is worse, it virtually amounts to a surrender of the standpoint of anviksiki itself. To equate the knowledge of truth with the knowledge of the self and to consider this knowledge itself as salvation means nothing but Upanisad or Vedanta and the serious acceptance of the standpoint of the Upanisad means to abandon the independent efficacy of anviksiki itself. Upanisad is claimed to be

revelation and the claim of revelation is the negation of the rational approach to reality. We have already seen that in the ancient times the Manavas deny independence of anviksiki; they propose to include it in trayi, which means making reason subservient to revelation. The same tendency accounts for the denunciation of mere anviksiki in the Laws of Manu (ii.11; iv.30), the ground of this denunciation being that the rational approach, left to itself, gravitates towards heretical views, as is seen in the case of the Lokayatas. The same is claimed in the Vedanta system, though perhaps with a bit of philosophical flavour (Brahma-sutra ii.1.11).

Nothing proves more devastating for Indian philosophy than the development of this tendency and the prestige which it eventually receives. It means the death of logic and the darkness of mere belief. To say that reason has efficacy only as subservient to the scriptures is as good as saying that the prisoner has liberty though within his prison-cell alone. But this is certainly not the standpoint of Nyaya-Vaisesika as Kautilya knows it. For him it is anviksiki and anviksiki is distinct from trayi. The later Nyaya-Vaisesikas, in trying to prove that it is also a form of the adhyatma-vidya, virtually annihilate its original spirit. Like its theism, therefore, this aspect of the later Nyaya-Vaisesika has no interest for us for our present purpose. What interests us is the Nyaya-Vaisesika known to Kautilya by its ancient name and as sharing the same tradition as that of the Samkhya and the Lokayata.*

^{*}The article forms part of the author's forthcoming Further Studies in Indian Materialism. Due to technical difficulties diacritical marks have been omitted.

Marx on Indian Railways

SUNIL SEN

When the Renewal of the East India Company's charter came before Parliament in 1853, Marx wrote a series of articles on India for the New York Daily Tribune. The 'railway mania' had seized the British investors, and railway companies were being incorporated in England (following the Registration Act of 1844). In his famous Railways Minute, dated 20 April 1853, Dalhousie pointed out the commercial advantages of railways for England which 'is calling aloud for the cotton which India does already produce'. Engrossed by a major phenomenon of his time, the consolidation of the British empire in India, Marx had to devote his attention on an analysis of the British rule in India. He was the first analyst who discovered the 'at once destructive and regenerative' role of the British rule in India. In one of his famous pronouncements on India Marx called attention to the future results of railway building:

I know that the English millocracy intend to endow India with railways with the exclusive view of extracting at diminished expenses the cotton and other raw materials for their manufactures. But when you have once introduced machinery into the locomotion of a country, which possesses iron and coals, you are unable to withhold it from its fabrication. You cannot maintain a net of railways over an immense country without introducing all those industrial processes necessary to meet the immediate and

current wants of railway locomotion, and out of which there must grow the application of machinery to those branches of industry not immediately connected with railways. The railway-system will therefore become, in India, truly the forerunner of modern industry.

In this passage Marx clearly indicated the motivation of the ruling class; the primary object was, in his view, to promote the export of 'cotton and other raw materials for their manufactures'. This analysis has been borne out by modern historical research. In 1846 the Cotton Commission proposed the improvement of the port of Bombay and the opening up of the Deccan by railways. Charles Wood wanted the Government of India to proceed with the construction of public works 'as rapidly as circumstances will allow', and especially with 'works in any way tending to facilitate the production and transit of cotton'.¹ In a recent careful study on railway investment Mr. Macpherson has averred that the primary motive behind railway building was to facilitate the transport of primary commodities, and especially cotton to Britain.²

In 1853 Marx could not anticipate the strategic motive which in fact began to figure prominently in government policy after the rebellion of 1857; strategic interests played no mean part in the construction of the North-Western railways and of the Shan railways in Burma. It is also noteworthy that the state directly undertook the construction of strategic railways which entailed large capital expenditure.3

The construction of railways in India was undertaken by some joint-stock companies incorporated in England, and there was considerable export of British capital to India for invest-

^{1.} For a detailed treatment of government policy see S. K. Sen, Studies in Industrial Policy and Development of India, 1858-1914, pp. 99-103; also M. N. Das, Studies in the Economic and Social Development of Modern India, 1848-56, pp. 72, 81, 82.

^{2.} W. I. Macpherson, 'Investment in Indian Railways, 1848-1875', Economic History Review, 1955-56.

^{3.} S. K. Sen, op. cit., p. 102.

ment in railways. Over the years India imported railway stores from England which had to be paid for in sterling. Who were then the beneficiaries of railway building in India? What was the outcome of railway building? Did the railways lay the basis of industrial advance?

We are familiar with the gloomy prognostications of Romesh Dutt who raised the irrigation vs railways controversy, and emphatically opposed the extension of state railways or of guaranteed railways: 'The further extension of state railways or of guaranteed railways would be a betrayal of the interests of the people of India under pressure from other quarters.' Unlike Dutt, Naoroji generally welcomed railways and public works, but severely condemned the 'crushing and economically crude and unintelligent policy of making the present generation pay the whole cost of public works for the benefit of the future', and pleaded for economy in government expenditure. To the rising Indian bourgeoisie, however, the railways appeared as a blessing; they were lured by the prospect of extending trade and commerce. The sprawling hinterland opened up new vistas for their development. Professor Thorner has told us that Ram Gopal Ghose, Dwarakanath Tagore, and the Bombay merchants warmly welcomed railway building.4 Similarly the Bengal National Chamber of Commerce which was the organ of the Bengali bourgeoisie, repeatedly pleaded for the extension of railways and feeder roads.5

There is a tendency among modern scholars to underestimate the memorable positive results of railway building in India. Mr. Jenks, for instance, averred that 'railroad building in India did not give rise to a flood of satellite innovations and it destroyed more occupational opportunities than it opened up.'6 Dr. Ganguli, an eminent economist, approvingly quotes

^{4.} Daniel Thorner, Investment in Empire, pp. 51, 77, 97.

^{5.} See the Annual Reports of the Bengal National Chamber of Commerce, 1887-89. The chamber was founded in 1887.

^{6.} L. H. Jenks, 'British Experience with Foreign Investment', Journal of Economic History, December 1944.

Jenks, and suggests that Marx 'proved a false prophet with regard to the revolutionary effects of railway development in India.'7

Such criticism appears to be unreal. The critics seem to forget that the railways released the latent potentialities of India for industrial advance. The coal industry could grow and expand because of railways; the development of the engineering firms (e.g. Jessop, Burn, Richardson and Cruddas) was geared to the needs of the railways. In fact, the engineering firms mainly supplied government orders of wagons, bridge materials, points and crossings, petty tools. When the Tatas embarked on steel manufacture, they depended, in the initial years, on government orders of rails, and the prestige of the Tatas rose high as they fulfilled contracts for rails for state railways. In their letter, dated 5 June 1912, they acknowledged with gratitude 'the very generous concessions made to our enterprise which more than any others have made an enterprise like the Tata Iron and Steel Works possible'.8

It is a commonplace that the Indian government pursued a laissez-faire policy, and avoided, sometimes scrupulously, any association with the productive process. Yet the needs of railway building in an immense country like India forced the government to participate in production. In fact the association of the state with the productive process revealed the importance and necessity of expanding government activity to accelerate India's economic development. The government founded and worked coal mines in the Central Provinces, central India, Baluchistan, and the Punjab. The main object was to supply the state railways with fuel. With a view to reducing the enormous expenditure on the import of railway stores Ripon decided to purchase the Barakar Iron Works which was worked as a state enterprise between 1882 and 1889; Ritter von Schwartz, a German metallurgist, did a good job of work

^{7.} B. N. Ganguli, Dadabhai Naoroji and the Drain Theory, p. 27.

^{8.} Sen, op. cit., pp. 65, 66, 88 and 89.

in re-establishing the Barakar Works, the premier iron works of India. It was surely not the policy of the government to develop state enterprise; in fact the Barakar Works was sold to the Bengal Iron and Steel Co. which was incorporated in England.9 Nevertheless, the experience was revealing; it pointed to the compulsion posed by railway building in India. Indeed the ruling class was faced with the dilemma of choice. Laissez-faire proved to be an elusive ideal.

The impact of the railways on industrial activity and employment was particularly evident in the construction of the railway workshops that were founded by the state and the companies. Some of the railway workshops, e.g. Jamalpore workshops, Kanchrapara workshops, Parel workshops (of the GIPR), Lahore workshops (of the NWR) grew to a substantial size even before World War I. In 1898 two blast furnaces and a rolling mill were erected at the Jamalpore workshops, and production of steel, though on a small scale, was started in 1901. A. Rendel, the consulting engineer of the India Office, pointed to the potential of these workshops in an ably written memorandum in 1907, and urged the construction of locomotives, rolling stock, railway plant in these workshops, so that India could be free from 'the disastrous effect, on her railway finance, of the high prices which sometimes prevail in England'. This was indeed a novel and illuminating suggestion, but the government rejected the proposal.

Yet the government had to extend the railway workshops when the war came in 1914; the total capital outlay on railway workshops down to the end of 1923-24 was about Rs. 12 crores. 10 In a period when the engineering industry was in the initial phase of development, the great importance of the railway workshops cannot be doubted. As the Indian Industrial Commission noted, these workshops represented 'by far the

^{9.} Ibid., p. 50.

^{10.} Sen, Studies in Economic Policy and Development of India, 1848-1926, pp. 5, 6, 8.

most important development of mechanical engineering in India'.11

It would be fatuous to hold that the railways failed to generate domestic incomes and employment. From 1900 the railways had begun to be remunerative, and gross earnings rose steadily. It should be remembered that the bulk of the railways had become state-owned by 1913-14. The number of employees (including administrative staff and industrial workers) rose from 383,762 in 1914 to 487,147 in 1922. The number of workers employed in railway workshops alone rose from 60,294 in 1901, to 79,082 in 1905, and to 112,000 in 1921.12

It was not fortuitous that the workers employed in railways and railway workshops took a leading part in early trade-union movement. In 1918 the M&SM Railway Employees' Union was formed in Madras. The workers of Jamalpore railway workshops participated in the strike-struggles which swept the country in 1919. The BB&CI Railway Employees' Union which exists even today was formed in 1920.13

We have tried to indicate the positive results of railway building in India which could be anticipated by the genius of Marx as early as 1853. It should, however, be noted that the possibilities inherent in railway building were not fully realised. In the first place, public investment in railway workshops was on a small scale, and these were not extended or developed in the direction of self-sufficiency. In fact, India has begun to manufacture locomotives only after decolonisation. Secondly, there was no development of iron and steel industry when

^{11.} Report of the Indian Industrial Commission, 1916-18, pp. 25-26. There were over 70 railway workshops, some of which were equipped 'with the most modern plant and machinery'.

^{12.} Report of the Indian Retrenchment Committee, 1922-23, p. 71; also Parliamentary Papers (House of Commons) Vol. 94, 1907. Europeans were mostly appointed 'to the superior establishment', and hence the nationalist demand for the Indianisation of the services.

^{13.} V. B. Karnik, Indian Trade Unions, p. 26; also R. K. Das, Labour Movement in India, pp. 36-37. Mr. Das states that the strike in Jamalpore workshops (December 1919 to January 1920) involved about 16,000 workers.

India was passing through the railway age. The Tatas undertook steel manufacture in 1912. Even so the progress of steel industry was extremely slow. Thirdly, the construction of railways was left with some joint-stock companies incorporated in England, and it was not until 1913-14 that the bulk of the railways had become state-owned. Fourthly, India had to face the menacing problems of finance, as large sums of money were annually remitted to England as Home Charges.

As Marx noted in Das Kapital, (Vol. III): 'India alone has to pay 5 million in tribute for "good government", interest and dividends on British capital, etc. not counting the sums sent home annually by officials as savings from their salaries, or by English merchants as part of their profit to be invested in England.'14 This was precisely the line of argument followed by nineteenth century Indian nationalist writers.

Last but not the least, we have to comprehend Marx's views on the mode of production in pre-British India. In Marx's writings on India there is a recurrent theme: The reactionary character of the old village system which was based on 'the union of agricultural and manufacturing pursuits'. In Das Kapital (Vol. III), he emphasised 'the obstacles presented by the internal solidity and organisation of precapitalistic, national modes of production to the corrosive influence of commerce'.15 He condemned in a famous passage the 'idyllic village communities' which 'had always been the solid foundation of Oriental despotism', which 'restrained the human mind within the smallest possible compass, making it the unresisting tool of superstition, enslaving it beneath traditional rules, depriving it of all grandeur and historical energies.' To Marx the development of modern industry was of crucial importance for social advance in India: 'Modern industry, resulting from the railway system, will dissolve the hereditary divisions of labour, upon which rest the Indian castes, those decisive impediments:

^{14.} Karl Marx, Capital, Vol. III (Moscow, 1959), p. 577.

^{15.} Ibid., p. 328.

to Indian progress and Indian power.'16

This was how Marx brought into focus the problem of India. 'Precapitalistic mode of production' and the caste system were the decisive impediments to social progress. Modern industry alone could shatter the old system which inhibited India's economic advance. The full effects of the new forces unleashed by railway building in India were to become evident as time passed. When Marx wrote on the positive results of railways in 1853, he was predicting the future. Like all great scientists Marx had 'the future in his bones'.

^{16.} Marx, 'The future Results of British Rule in India,' On Colonialism, Moscow, 1960), pp. 79-80.

A Marxist View of Ancient Indian History

DWIJENDRA NARAYAN JHA

Ι

IN RECENT YEARS THERE HAS been a phenomenal increase in the volume of Indian historical research, though the bulk of it follows the lines laid down either by the 'leisurely and pontifical writings of the British administrators and scholars', or by the nationalist historians of preindependence India who were largely motivated by the ideological needs of the freedomfighters. The influence of western imperialist school is seen in the choice of such themes as dynastic histories isolated completely from their socio-economic milieu. The hangover of the nationalist bias is evinced in the writings of historians who are seriously preoccupied with proving that ancient India was the cradle of world-Aryan culture with colonies of its own among other peoples. These trends have gone a long way in making the waters of Indian historiography rather stagnant and turbid, only recently stirred by such researchers as try to 'see India as part of Asia and the world and to explain its history in terms that are not peculiar to it alone but are of a more universal application'. In this context the Marxist trend represented by D. D. Kosambi¹, an amateur and not a professional historian, is playing a significant role in Indian historical research.

Generally Indian scholars have so far been highly allergic to Marxists who are held guilty of blatantly forcing the historical evidence to fit into a supposedly rigid framework laid down by Marx and Engels. Admittedly, some historians (e.g. Dange, Hussaini) have adhered to the orthodox Marxist scheme of periodisation in reaction to which there has grown up a belief that Marxism stands—and falls—for a unilinear development of history. Not all this can be said of Kosambi who admits that 'Indian history does not fit precisely into this rigid framework' (p. 25). According to him ancient Indian society, unlike the Greek and Roman, cannot be characterised as based on slavery. Although some people were not free from earliest times to the present century, he holds that the importance of chattel slavery in the relations of production and as a supply of labour for economic production was negligible (p. 23). The place of the slave whose surplus could be expropriated was taken by members of the sudra or lowest caste in older days. Kosambi's statement is especially true of the Vedic period when the number of slaves was very small and hence could not have engaged in productive activities like their Homeric counterparts. This is borne out by the fact that whenever the Vedic passages refer to the gift of slaves they invariably speak of women slaves made over to priests.

But during the period 400-100 BC, represented by the early Pali texts and the Arthasastra, slaves emerge as a factor in production. The Pali works, the oldest of which cannot be taken beyond 400 BC, indicate that in north-eastern India slaves and hired labourers were employed in cultivation, especially in large-sized fields ranging from 500 to 1000 karisas. This is confirmed by Kautilya who enjoins the superintendent of agriculture to requisition the services of dasas and karmakaras for

^{1.} D. D. Kosambi: The Culture & Civilisation of Ancient India in Historical Outline, pp. xi-243, 98 plates, line illustrations; Routledge and Kegal Paul, London, 1965; price: 50s.

working on state farms. Though slaves participated in the productive activities of the community, it is not possible to find out their numerical strength, therefore it is difficult to qualify to any significant degree Kosambi's statement cited above. Nevertheless, certain basic problems remain to be examined. For example, what precisely was the relation between sudras and slaves? Again, how did the two producing classes, sudras and slaves stand in relation to their masters? Unless these questions are adequately answered Kosambi's total denial of the existence of slavery in ancient India may not be acceptable. However, the author does not show any procrustean adherence to slavery-feudalism-capitalism scheme. Slavery, he tells us, did not precede feudalism in Brazil, whereas it came in the USA without any feudalism at all, with the bourgeoisie for the development of cotton plantations (p. 24).

Nor does Kosambi seem to accept the concept of Asiatic mode of production unreservedly. Although never clearly defined by Marx and hence put to a highly tendentious use by western scholars (e.g. Karl Wittfogel), there runs through his idea of Asiatic system of production the concept of a society characterised by tribal communal ownership of land and a self-sustaining economy based on 'a combination of manufacture and agriculture within the small community'. Connected with this agriculture-manufacture connubio is the notion of both Marx and Engels about the slow-moving character of Oriental society, as can be inferred from the former's prominent reference to its 'stagnatory and vegetative life' and the latter's remarks on its 'tremendous staying power—thousands of years!'

Kosambi departs from the orthodox Marxist notion of the 'unchangeableness of Asiatic societies'. After all, the very formation of the village economy with the plough used on a fixed plot of land implies a tremendous advance in the means of production (p. 16).² Self-sufficiency, which according to the

^{2.} The myth of millenary stagnation of Indian society has been ably exploded by R. S. Sharma who marks definite stages in the development of its economic basis till the beginning of feudalism from the Gupta period

founders of Marxism is the characteristic feature of Asiatic societies, is not possible in the strict sense of the term. For, we are told, most of the Indian villages produce neither salt nor metals, the two essentials that had to be obtained by exchange. Nevertheless, it does remain true, according to the author, that the Indian village became nearly self-contained from the Gupta period onwards owing mainly to the decline of trade and urban life. This led to the break-up of the guilds of merchants and artisans who migrated to the villages to eke out a living by catering to the needs of the rural population. Though Kosambi accepts the notion of Asiatic society or Oriental commune with some reservation, some Marxists (e.g. R.S. Sharma, Irfan Habib) are chary of associating the idea of common ownership of land with the self-sustaining village economy.

Thus there are a number of points of departure from orthodox Marxism noticeable in the book. Marxism is for him not a 'substitute of thinking' as some anti-Marxists often feel, but a 'tool of analysis' the importance of which was realised even by Gordon Childe who interpreted the vast mass of archaeological material with its application. Kosambi has demonstrated beyond doubt that dialectical materialism does not make the muse of history lie on the bed of Procrustes.

For all this Kosambi remains a Marxist. For him 'history is the presentation in chronological order of successive changes in the means and relations of production' (p. 10). His history does not flourish 'under the aegis of the muse Clio who has an abacus to determine chronology and a trumpet to celebrate victories of kings and generals'. Any 'personal', 'episodic', drumand-trumpet history of India, he points out, 'should be enjoyed as romantic fiction' or 'like some Indian railway time table' (p. 23). It is in accordance with this attitude that the author treats culture as the essential ways of the life of the people, and not purely as a matter of intellectual and spiritual values.

The type of history Kosambi seeks to reconstruct is difficult, onwards. See his Light on Early Indian Society and Economy, Bombay, 1966, pp. 52-89.

more so in the case of India which has 'virtually no historical' records worth the name' (p. 9). Whatever historical documents exist are overwhelmingly religious and ritualistic so that an attempt to extract history from them without some previous knowledge of the actual structure of Indian society at the time of writing 'gives either no results or the ludicrous conclusions that may be read in most histories of India' (p. 10). Such knowledge is possible only through archaeology and anthropology that guard the historian against the pitfalls which often beset a purely philological and linguistic approach. Archaeology helps documents to tell us how the people of the vanished age actually lived.

But here again the difficulty is that Indian archaeology is 'not advanced enough to solve the really important questions, not even to ask some of them' (p. 13). Therefore increasing use has to be made of anthropological data which are available in plenty in India. This implies that Indian archaeologists will be better at their own job if they were able to pass through the purlieu of anthropology first. There is nothing new or eccentric about Kosambi's stress on the ethnographic material. That historians might profit from an acquaintance with anthropology was suggested by Professor Tawney as early as 1933 in his Inaugural Lecture at the London School of Economics. Kosambi's renewed emphasis obviously derives from the fact that anthropological material offers a detailed analysis of phenomena roughly comparable to those which the historians are endeavouring to reconstruct with a good deal less evidence. Thus the technique followed by him is the collation of written records with archaeology and the interpretation of each of these inconjunction with ethnography.3

II

THIS PROFUSELY ILLUSTRATED book, which sums up for thegeneral reader the results of Kosambi's historical inquiries, con-

^{3.} For a detailed treatment of Kosambi's methodology see his article-'Combined Method in Indology', Indo-Iranian Journal, vi.

sists of seven chapters, the first of which is introductory and focusses attention mainly on methodological problems. The remaining six deal with topics ranging from prehistory to the flong process of emergent feudalism and the decline of Buddhism, which brings us into the Muslim period and the Indian Middle Ages, to the end of what may reasonably be called ancient Indian culture' (p. 25). The author, after demonstrating the groundlessness of the idea of any golden age in human history, brings into relief certain aspects of primitive preclass society in India. He underlines the process of mutual acculturation between the food-producing advanced immigrants and the food-gathering aboriginals.

An important feature of Indian prehistory is that 'food-gathering apart from hunting and fishing remained much easier over most of India and had a far greater range than in Europe or elsewhere in the Eurasian continent... even a region of average fertility like Maharashtra has over forty kinds of indigenous staples, most of which are cultivated but can also be found wild' (p. 34). Perhaps for this reason food-gatherers have lived side by side with food-producers, with resultant influences of the one on the other and vicc versa. Kosambi culls several instances from his field work to show how some of the primitive techniques and ideas have survived in Indian life and thought to this day. His illustrations are mainly drawn from his home state of Maharashtra and need must be extended to other regions by future researchers.

Introducing the reader to the prehistoric civilisation of the Indus valley, Kosambi explains why the first great urban development on the subcontinent should have taken place along a river that flows across a virtual desert (pp. 58-59). The river is necessary for water and fish, an important source of food; the alluvial desert keeps the early population confined to a strip along the river, making food-gathering beyond a certain stage and range impossible, thus giving stimulus to the development of a food-producing economy, with a surplus necessary for the maintenance of urban centres. The world's ancient civilisations,

the author thinks, grew up along such rivers, perhaps because the more fertile valleys were too densely overgrown with forest or too swampy to be workable with the crude and inadequate tools available. According to him the loess corridors (with thin forest) which provided a reasonably fertile base for agriculture in the Danubian and Chinese prehistoric civilisations are as good as a surrounding alluvial desert (p. 58).

He, however, ignores the Bronze Age civilisation of Crete and the neolithic cultures of Mexico and Peru, none of which is riparian or associated with desert conditions. Although civilisation grew up along the Indus and West Asian rivers flowing through similar geophysical conditions, the remarkable continuity of urban culture in Babylonia and Egypt was missing in India. In Mesopotamia, in a smaller area, and one not more fertile than the Indus basin, there were more than half a dozen cities. As compared to this, the Indus settlements were sparse; there were only two large cities. This was so because the Indus people, unlike their West Asian counterparts, did not practise canal irrigation, nor did they have the heavy plough (p. 62). These reconstructions seem reasonable, but must be confirmed by future excavations before they can be finally accepted.

In point of fact, on several other assertions made in the chapter on the Indus valley, scholars may have reservations. Thus the Great Bath at Mohenjo-daro may have been a ritual tank originally connected with primitive fertility rites, but one may not accept his interpretation of it as a prototype of the later sacred pond (puskara).4 It may be difficult to agree with the contention that 'internal economic distribution was administered by the great temple and its priesthood'; he equates the citadel mound by the side of the Great Bath with the templeziggurat structures of Mesopotamia (p. 69). This implies that the Harappan state was theocratic, a proposition which is unwarranted in the absence of definite traces of temples like those of Mesopotamia in the region.

^{4.} JAOS, lxxvii, p. 220.

The Aryans, who brought the ruin of Indus cities, were a pastoral, nomadic, patriarchal people, and, unlike the native inhabitants, used horse-chariot for war and ox-carts for heavy transport. Later they also mastered the use of plough and iron. Thus with a definite technological superiority over their predecessors, the Aryans gradually expanded eastwards, burning down the forests, first along the northern foothills and then in the plains, till the widespread use of iron implements made large-scale land clearing possible. Kosambi ascribes the origin of the caste system to the period of aryanisation of the Gangetic valley. He adduces the stories of Vasistha and Agastya, the two jar-born seers with non-Aryan antecedents, and considers their adoption into the high Aryan priesthood 'a fundamental innovation' (p. 83). He seeks to prove that it was through an interaction of the Aryan and autochthonous elements that 'a new class of specialists developed which would eventually claim monopoly of all Aryan ritual—the brahmin caste'. This may embarrass the racist whose favourite pastime is to postulate an Indian home for the Aryans and an unequalled purity for their blood.

About the beginnings of a slave class Kosambi remarks: 'the Aryans who moved eastward differed from the first invaders of India. A new sort of tribal slave, the dasa, was available for extra labour' (p. 83). In one of his earlier books he says that 'this was the beginning of the caste system in India'.5 This has been contested by Ingalls' whose alternative hypothesis about the possible role of famines in the proliferation of castes, if substantiated by patient research, may be no less valuable. Ingalls has approvingly emphasised the contentions of Hocart, according to whom, in Polynesian cultures caste is intimately connected with a belief in mana, and of J. H. Hutton who reports a similar belief among the Nagas of Assam.7 Apparently

^{5.} Introduction to the Study of Indian History, Bombay, 1956, p. 93. The author has also expressed some of his ideas on the caste system in 'Early Stages of the Caste System in Northern India', JBBRAS, No. xxii, pp. 33-48.
6. IAOS, lxxvii, p. 222.
7. Ibid.

any analysis of the origin of caste on the lines suggested by these scholars may go against the tenets of Marxism which does not seem to recognise 'superstructure' as a catalyst in historical process. But one keeps wondering why Kosambi does not take account of the possible correlationship between the mana-superstition and caste, particularly in view of his admission that 'no materialist can afford to neglect the effect of ideas on social development' (p. 28).

The caste system had begun to crystallise in the later Vedic period leading inevitably to the predominance of the Brahmana priesthood in an increasingly ritualistic religion, which developed during the transition of the Aryan society from pastoral to agricultural life, rendered possible presumably by the use of heavy plough and the availability of metal in significant quantity from the east from about 800 BC. Elsewhere, with regard to the use of iron in India, Kosambi has stated specifically: 'the date 800-700 BC seems to me a reasonable beginning for the Iron Age in India.'8 The beginning of Iron Age in India, however, has been a matter of considerable discussion. Formerly it was held that iron was first introduced in India around the 5th and 6th centuries BC. But this goes against the later Vedic literary evidence as well as the presence of iron objects in pre-NBP levels at several archaeological sites. The latest archaeological evidence available from Atranjikhera (UP) proves the existence of iron in the Painted Grey Ware strata dated 1000 BC or earlier by radio-carbon. Kosambi takes note of this in the postscript, but does not revise his opinion in the body of his book presumably because it was too late for him to do so.

Whatever the date of its earliest provenance in ancient Indian sites, iron played a significant role in transforming the pastoral Aryans into a class-oriented agrarian society whose reaction against Vedic ritual animal-slaughter may have paved the way for the heterodox religions—Buddhism and Jainism.

^{8.} JESHO, vi, p. 318.

Although the nature of evidence at our disposal precludes any conclusive proof of the causal relationship between iron technology and the development of new religions in the 6th century BC, what lends strength to Kosambi's thesis is the fact that iron also seems to have provided the material background of the origins of Judaism in Palestine, Zoroastrianism in Iran and Confucianism in China.

With the growth of agrarian society and the consequent break-up of the tribal society, the new religions (Buddhism and Jainism) naturally crossed the barriers of the tribe. The new philosophies 'that formulated and preached a doctrine beyond the tribe had their political counterpart. There was parallel move towards a universal government for society' (p. 120). This can be seen in the process of transformation of north India into a monarchical government with Magadha as the seat of imperial power. Of the 16 Mahajana padas in the 6th century BC, only four, Licchavi, Malla, Kosala and Magadha, retained any importance in the final struggle for power that was fought at the end of the 6th and the beginning of the 5th centuries BC. Kosambi's explanation as to why Magadha, and not any other janapada, finally leaped into prominence, is highly convincing. Magadha, 'destined to grow into India's first "universal monarchy" and empire, controlled...the supply metals... The hills near Rajgir have the northern-most Dharwar outcrop, a geological formation in which iron is rather handily available. Rajgir has the added convenience of an easily defended perimeter of hills, fortified quite early with cyclopean walls, twenty-five miles in length, enclosing the inner walled city... Beyond Gaya came the primeval forest through which hardy explorers passed to locate copper and iron ores in the hills to the south-east, the richest such deposits in India... This, then, was Magadha's great source of power, for that state used the metal systematically to clear the land and to bring it under the plough' (p. 123).

The ideal of a universal monarchy was, however, not fully realised until the time of Candragupta Maurya whose task of

unifying the country was rendered easier by Alexander who defeated the tribes of the Panjab and made pastoral life difficult in the region.

The age of the Mauryas, to which Kosambi attributes the Arthasastra of Kautilya, witnessed an unprecedented expansion of village-economy, because the Kautilyan state itself was 'the main land clearing agency, the greatest producer of commodities' (p. 143). The Mauryan government flourished on a powerful cash economy and a vast salaried bureaucracy including the developed police system for coercion. But Asoka, the grandson of Candragupta, much softened the coercive power of the Mauryan state by introducing serious changes in the administration. This can be inferred not only from the practice of quinquennial tours of the empire by the king and his high administrative officers but also from the fact that there came into being a 'new class of plenipotentiary supervisors (dharmamahamatras) with control over official and special funds' (p. 161).

During Asoka's reign the Mauryan state seems to have fallen into financial straits. For, we are told, the state monopoly of metals was gradually being lost; copper mines in Bihar had begun to reach water-level; Magadhan supply of iron fell short of total demand for it. New sources of iron had been located and developed to some extent in Andhra and Mysore, but the expansion of the Mauryan power beyond the river valleys of the north into the less fertile Deccan was precluded by the increasing financial difficulties that faced the administration. Here much of what Kosambi tells us remains conjectural and cannot perhaps be documented. But the continued debasement of coinage, to which he draws attention, indicates that the Mauryan treasury was impoverished and further expansion would only strain it all the more.

The seventh chapter (pp. 106-210), which is also the last, deals somewhat sketchily with main changes in the political, economic and religious life in the post-Maurya and the Gupta periods. In the north a welter of small tribes, both foreign and

indigenous, divided the hegemony among them, whereas the Deccan was controlled mostly by the native dynasty of the Satavahanas. Under them the period witnessed the gradual subjection of the region to the plough—a process which, according to Kosambi, goes back to the 5th century BC. On the other hand, the brahmin priesthood, shorn of its Vedic ritualism, imposed itself on non-Aryan tribes, thus accelerating the process of mutual acculturation and their merger into general agrarian society. Flourishing trade with the Roman empire made high commodity production possible as also the rise of a mercantile class which financed the establishment and construction of many Buddhist cave temples in western India.

By the end of the Gupta period certain factors paved the way for feudalism. Overseas trade with the western world was interrupted by the fall of the Roman empire in the 3rd century AD. The demand for village essentials, which had increased tremendously after the extension of village settlements, could not be met by the towns and cities. The total amount of coin in circulation, Kosambi points out, was not sufficient to support commodity production on a scale consonant with the increased population and growth of new village settlements (p. 195). The main problem therefore was of 'servicing the village to make it self-contained without commodity production and cash payments' (p. 195). This was solved by the gradual ruralisation of artisans and craftsmen and the emergence of traditional Indian village community which fostered feudalism in India through centuries.

The ideological basis of the feudal society, Kosambi states, was provided by the doctrine of bhakti which runs through the Gita, a work, according to him, of not earlier than the 3rd century AD.9 The date of the Gita, however, is highly controversial. Sukthankar has assigned it to the 2nd century BC—a contention recently strengthened by some fresh Chinese

^{9.} For detailed discussion see D. D. Kosambi, Myth and Reality, Bombay, 1962, pp. 12-41.

evidence brought to light by Mrs. S. Jaiswal in her doctoral dissertation.10 Admittedly, it may be difficult to disagree with Kosambi when he points out the similarity between the doctrine of bhakti which advocated an 'unflinching loyalty to a god (Krsna) whose rather questionable personal record was not allowed to stand in the way' and the feudal ideology which 'links together in a powerful chain the serf and retainer to feudal lord, baron to duke to king'. But if the Gita is placed in the last centuries before Christ, the cult of bhakti expounded in it cannot reasonably be treated as an ideological basis of the personal relationship that may have subsisted in feudal times between the lord and his retainer. For, in so doing one may be guilty of presuming that the work, which in the words of the author himself was unpopular enough in the beginning to lead to the compilation of the 'insipid' Anugita, determined the material life of the people.

Kosambi has something new to say on the decline of Buddhism. While Brahmanism, divested of expensive Vedic rituals, strengthened its hold on the newly-colonised areas and their aboriginal population, Buddhism and its vast unproductive monastic foundations served no useful purpose after the decline of trade and emergence of closed village economic units. The passing away of Buddhism was logical when it 'had become a drain upon the economy instead of a stimulus' (p. 185). Here evidently the author's formulation is too simplistic, especially when judged in the context of Hindu temples. We have ample evidence to show that early medieval Indian temples amassed fabulous wealth mainly through donations. Most of them played significant role in the economic life of the country, especially in the south, if not by investing their accumulated wealth in trade at least by extending the area of cultivable land and thus augmenting the economic production of the adjoining areas. What however is difficult to explain in the light of the author's contention is that these temples have survived through centuries

^{10.} S. Jaiswal, The Origin and Development of Vaisnavism, Ph.D. Thesis, Patna University, 1963.

and attract a large number of pilgrims from distant regions of India to this day, though, without doubt, they are a serious drain on Indian economy in that they increase the total volume of unproductive wealth and reduce the capital-investment potentiality. If Kosambi's thesis were true, all famous Hindu temples should have decayed and dwindled by now through sheer neglect.

It is not only in broad generalisations that one may differ with the author; even in matters of detail there is scope for difference of opinion. Kosambi's unusual faith in the totemic origin of names and gotras goes to irritating lengths. His statement that the Mauryas derived their name from peacock-totem (p. 189) does not sound convincing, for it is mentioned in the list of birds killed for the royal kitchen till Asoka's time (R.E.I.). In spite of all this, the importance of Kosambi's interpretation and analysis cannot be minimised. In fact his conclusions remain a set of valuable hypotheses which future researchers will do well to test in the light of data available through diversification of sources.

The work under review gives evidence of the superb mind of its author who throws up on every page some fresh and stimulating idea. Many Indians, however, will be horrified by Kosambi's attacks on their cherished dogmas, the seeds of which are sown not only through granny's tales told around a family fire-place in an informal atmosphere but also through the classroom lectures in a somewhat sophisticated manner. On page 102 he writes: 'A modern orthodox Hindu would place beef-eating on the same level as cannibalism, whereas Vedic brahmins had fattened upon a steady diet of sacrificed beef'. On page 114 he states: 'The Gita with its brilliant Sanskrit and superb inconsistency is a book that allows the reader to justify almost any action while shrugging off the consequences. The many-faceted god (Krsna) is likewise inconsistent, though all things to all men and everything to most women'. Again he speaks of the Gita: 'This divine but rather scrambled message with its command of expository Sanskrit is characteristically Indian in attempting to reconcile the irreconcilable, in its power of gulping down sharp contradictions painlessly' (p. 207).

These are only some of the mordant assertions made by Kosambi; there are many more in the book. Evidently he is an iconoclast for whom ridicule is the first step in sapping the foundations of a faith which has become effete in the context of changed material conditions. 'It is doubtless more important', he tells us, 'to change history than to write it' (p. xi). Here one is naturally reminded of Karl Marx who observed almost a century ago: 'The philosophers have so far interpreted the world, in various ways; the point, however, is to change it.'

Marx After Hundred Years of Das Kapital

Did Marx abandon his Labour Theory of Value?

P. R. BRAHMANANDA

ON THIS DAY¹ FALLS THE HUNDREDTH anniversary of the publication of Das Kapital, Volume I. This occasion may be utilised to appraise the exact position which Marx's economic thoughts occupy in contemporary economic theory at its frontiers. Such an appraisal is subject to the limitations of the writer on account of any possible imperfections in his understanding of Marxian economics as well as of contemporary economics.

I

THE FOUR VOLUMES OF Capital (treating Theories of Surplus Value as the fourth volume) must be taken together and in an integrated manner. From this angle it is good to trace the developments of Marx's thought from the Selected Correspondence of Marx and Engels. We learn that as early as in the

1. This paper was presented at a seminar in the Department of Economics, University of Bombay on 14 September 1967. An Appendix examines the crucial issue of the hypothesis of 'falling profit-rate'.

beginning of January 1851, Marx was engrossed in Ricardo's theory of differential rents. Here we find Marx challenging the need for a law of diminishing returns in order to explain differential rents. The latter could be explained simply by postulating the existence of land units of different fertility and of different yield—response potentials for successive applications of capital. By these means Marx was able to reconcile Ricardo's position with (Carey's) criticisms about the order of cultivation and with the empirical fact of falling differential rents with economic progress. Marx appears to have been impressed by the pace of technical improvement in agriculture. It appears that by April 1858 Marx was able to report to Engels a short outline of his critique of political economy. Here he asserts that value has no other 'material' but labour itself. He also develops here his views on the role of money and the circulation process. In a letter dated 2 August 1862, Marx outlines the resolution of the conflict between the postulates of equal rates of exploitation and unequal rates of profits in different commodities as indicated in the doctrines of labour values and the empirical phenomenon of equal rate of profits and unequal rates of exploitation in prices as they prevail. He emerges with a distinction between 'values' and 'prices' (of production). He criticises Ricardo for confusing value with costprice (note here that the term cost-price is used by Marx in Volume III of Capital in a different sense. In that volume, by cost-price Marx refers to a portion of the price of the commodity, i.e. that portion which returns the capitals used in the production of the commodity). In this letter, Marx also emerges with the idea of a portion of rent known as ground-rent separate from differential-rents. Another concept which is introduced here is 'organic composition of capital'.

In a letter dated 6 July 1863, Marx has his own version of a tableau economique. In his letter dated 31 July 1865, Marx refers to three chapters which still remained for the completion of the first three books. We find him also referring to a fourth book on the history of economic theory. In a letter dated

13 October 1866, he reconciles himself to the publication of the first volume earlier than the other volumes. He had modified his scheme to produce now three books in place of four (actually the original scheme of Marx has prevailed). On 24 August 1867 he refers to the two important contributions of his work: (a) the double character of labour in the form of use-value and exchange value and (b) the treatment of surplus value independent of the particular forms of profits, interest and ground-rents, etc. He points out that (b) would be more prominently developed in Volume II.

Volume I of Capital appeared on 14 September 1867; volumes II, III and IV were published posthumously. In the selected correspondence there are very few allusions to Marx's further thinking on the subject, say between 1867 and 1883. In a letter dated 22 April 1868, Marx refers interestingly to how when the value of money falls the rate of profit instead of remaining constant is raised. This he explains as being due to the delay in the adjustment of money-wage rates. In view of contemporary interest in so-called 'Neo-Keynesian' models we give below a relevant extract from Marx:

If, when the value of money is falling, the price of labour does not rise to the same degree, then it falls, the rate of surplus value rises, and therefore, all other things remaining the same, the rate of profit also. The rise of the latter—so long as the ascendant oscillation in the value of money continues—is simply due to the fall in wages, and this fall is due to the fact that the change in wages only slowly accommodates itself to the change in the value of money. (So at the end of the sixteenth and seventeenth centuries.) If, on the contrary, when money rises in value wages do not fall in the same proportion, then the rate of surplus value falls, and therefore, other things being equal, the rate of profit.

These two movements, the rise in the rate of profit when money falls in value, and its fall when money rises in value, are, in these circumstances, both only due to the fact that the price of labour has not yet been adjusted to the new value of money. These phenomena (their explanation has long been known) cease when the price of labour and the value of money are adjusted.²

Remember that when Kaldor went to China in 1955 he lectured to the Chinese economists on the distinction between Marxian economics and Keynesian economics. The chief distinction was that Keynes treated money wage rate as lagging behind price-level changes, hence 'Keynesian' models would demonstrate a relatively painless way of raising the relative share of profits. According to him, Marxian economics treated real wage rates as being sticky. In fact in the doctrinal history of inflation theory Marx must be credited as perhaps one of the first to have perceived the relation between profits in the short period and the level of prices.

In a letter dated 30 April 1868 he discusses the outline of Volume III. In view of the crucial significance of Marx's position in Volumes II and III, we give the relevant extract in full below:

At last we have arrived at the forms of appearance which serve as the starting point in the vulgar conception; ground-rent coming from the earth, profit (interest) from capital, wages from labour. But from our point of view the thing is now seen differently. The apparent movement is explained. Moreover, Adam Smith's nonsense, which has become the main pillar of all economics hitherto, existing, that the price of a commodity consists of those three revenues, i.e. only from variable capital (wages) and surplus value (ground rent, profit (interest)), is overthrown. Then—the whole movement takes place in this form of appearance. Finally since these three (wages, ground rent, profit (interest)) constitute the respective sources of income of the three classes of landowners, capitalists and wage labourers, we have, in conclusion, the class struggle, into

^{2.} Marx and Engels, Selected Correspondence, Calcutta, 1945, pp. 211-12.

which the movement and the smash-up of the whole business resolves itself.3

From the above brief excursus into the Marx-Engels correspondence, we get the impression that Marx's approach to economic theory was continuously evolving. Marx began with the position that labour and labour alone is the sole source of the value of commodities. In his early writings and particularly in Volume I of Capital he concentrates upon the point that value is a sum of variable capital and surplus value; in other words upon what is known as the component of value-added in commodity prices. In Volume I, he conducts discussions sometimes on the assumption that the component of constant capital in the exchange values of commodities is zero. Again, in Volume I he refers to the whole of prices as cost-price. No doubt, even as he was writing Volume I, he was clear in his mind about the distinction he would develop later between values and prices. To Marx himself, according to his own thought development, there is no logical contradiction between the procedure he has adopted to determine values and prices of production. Those who criticise Marx on the score of fundamental change in this respect between Volume I and Volume III have simply missed the bus. However, there is a rather fundamental change between the viewpoints as developed in Volume I and as emerging in Volumes II and III and as reflected in Theories of Surplus Value. It is to this aspect that we should now turn.

H

MARX'S IDEAS ON ECONOMICS particularly on matters of pure theory developed as a result of his prolonged and probing reflections on the writings of the Physiocrats and of the English classical economists. In Theories of Surplus Value Marx draws pointed attention to the peculiar characteristics of agriculture in which surplus value appears independently of circulation.

But if the creation of surplus value in the sphere of pro-3. *Ibid.*. p. 218. duction is what has to be established, it is necessary first of all to go back to that branch of production in which surplus value is found independently of circulation. The initiative was therefore taken in a predominantly agricultural country.4

In commenting upon Adam Smith's views on the Physiocrats, he states, 'And it remains true that, taking a single country..., surplus labour must first be applied to agriculture before it becomes possible in the industries that get their raw materials from agriculture.'5 Marx believed that unless the surplus of agriculture commodities can be expanded it would not be possible to provide more employment in manufacturing. Marx was a believer in the possibility that a production system could be so constructed that mutual exchanges of materials would be so governed as to lead to outputs in a similar form and in similar proportion as inputs. He repeatedly refers to a reproduction model dealing with the same kind and number of commodities.

However, from the Theories of Surplus Value⁶ we note that he enlarges the Physiocratic circle by bringing in all the industries involved in the production of means of subsistence and instruments of production thereof. From the Physiocrats Marx adopts the notion that the maximum rate of profits in a production system (the sum of variable capital and of surplus value divided by the sum of constant capital and of variable capital) depends solely upon the conditions of productivity in the generalised matrix as above. As industries producing means of subsistence and related activities were crucial here, Marx could take the position that unless the expenses of production of goods necessary for evoking the flow of labour power could be reduced by technical improvements, any potentially higher value in the rate of profit could be obtained only by either keeping real wage rates at a lower level and/or by the exten-

^{4.} Theories of Surplus Value, Part I, London, p. 51.

^{5.} Ibid., p. 167n.

^{6.} Ibid., vide portion of 'Accumulation of Capital and Crisis', p. 343ff.

sion of the working day. If we assume that real wages have reached a conventional level, that the length of the working day has been sufficiently elongated, and that the maximum rate of profits is unchanged, we could deduce the conclusion that the rate of surplus value would be constant. Granted that there is tendency towards a secular rise in the proportion of constant capital to total capital, and assuming that the rate of surplus value remains constant, the magnitude of profits would be lower if the proportion of the variable capital to total capital is lower than if it were higher. Hence there was a built-in tendency for a fall in the rate of profits.

Unlike Ricardo, Marx was not so much obsessed by the prospect of diminishing returns in agriculture. He took from Ricardo the fundamental notion that machinery and labour are always in perpetual competition. He also noted the tremendous significance of Ricardo's proposition that the proportion of fixed capitals and of circulating capitals (as conceived by Ricardo) in total capitals was arbitrary, even given a rate of profit; the conception of the rate of profit was independent of the capitals' proportions. Hence the volume of employment was also arbitrarily determined. To Ricardo's position, Marx appended a dynamic proposition that there would be a secular tendency to a rise in the proportion of constant capitals in total capitals. Note that when Marx identifies this tendency with the 'development of the productive powers' of labour, he does not maintain that the maximum rate of profit is raised. In fact, this rate is not affected by the capitals' proportions. The best way to appreciate Marx's position is to postulate that workers live and work on zero wages. Constant capital consists of fixed capital and of circulating capital. Suppose mechanisation has gone to such an extent that only a minimum of labour technically feasible is being used. Yet so long as the tendency towards rising mechanisation implies a correspondingly rising provision for primary commodities as inputs and for wear and tear, etc., there will still be a tendency for the rate of profit to fall. In fact we face here the increasing technical difficulty in raising the proportion of fixed capital without at the same time causing a rise in the proportion of circulating capitals though these may consist of only materials other than subsistence. However, we may note the plausibility of Marx's position though it appears that, thanks to innovations, the predictions of both Ricardo and of Marx have not been corroborated; this is an empirical point.

What lies at the secret of the falling profits' rate hypothesis? After all any displacement of labour by machinery does not rule out the need for given quantities of primary commodities (apart from the increased wear and tear, etc. provisions), as inputs in the production process; only less labour is employed now than before the displacement; the composition of inputs and of outputs consists of less of means of subsistence. Yet machinery can't work on nothing. It is therefore important to realise that, in terms of Marx's terminology, variations in the proportions of machinery and of variable capitals in given total capitals do not imply any economy in the requirements of primary commodities as inputs. Thus we reach the conclusion that with given growth rate of laboursupply and unchanged technology, if the share of profits is higher than that needed to keep continuous full employment, any incremental rise in the proportion of machinery cannot stave off a fall in the rate of profit. A potential inadequacy of labour may be made good by a rise in the proportion of machinery; but so long as diminishing returns obtain in regard to primary commodities, the rate of profit cannot but fall. Thus if we view the production process as one of production of commodities by means of commodities, including machinery in inputs and outputs the rate of profit would necessarily tend to fall so long as diminishing returns operate. The falling rate of profit hypothesis of Marx is a generalisation of the Ricardian position on diminishing returns in agriculture.7

^{7.} This writer must admit that this new insight into Marx has been made possible only because of Sraffa's book. The appendix to this note examines the falling profit-rate hypothesis in greater depth.

THE REFERENCE TO SRAFFA'S BOOK, Production of Commodities by Means of Commodities, is just appropriate at this stage. In our view the line of theoretical development in economics starts with the Physiocrats; it extends through Smith and reaches a high water-mark in Ricardo. Thereafter it reaches further heights in Marx and is almost obliterated between the long period from Marx to Sraffa with whom again a higher water-mark is achieved. It is Sraffa's work which ties both Ricardo and Marx in a golden bond. Perceived through the perspective of Sraffa, Marxian economics appears wholly in a different light. Suddenly an entirely new vista is open to unravel Marx's own thought processes.

We have seen that Marx pondered deeply over Smith and Ricardo. Marx commences with the position that labour and labour alone transmutes value to commodities. Yet labour does not reap the fruits of its effort. Marx treated labour-power as a commodity whose value is determined by the costs of production of the commodities constituting conventional subsistence. In a capitalist system labour does not own means of production nor does it have access to means of subsistence independent of its role as a commodity. The capitalist system is organised for maximum accumulation. Accumulation is not conceivable without surplus. It is here that Marx introduced a hypothesis that capitalism seeks to obtain an equal rate of exploitation on variable capital. Marx took the view that constant capital is not a contributor to surplus value. It just replaces itself. A chief difficulty in the above exposition is that whereas the rates of exploitation have to be equal in different industries this is not actually so and the rates of profit are equal. The rate of profit is a rate of return to total capital. The sets of exchange ratios as governed by the principle of Marx's law of equal rate of exploitation and as governed by the principles of equal rate of profits are not necessarily the same except when the ratio of labour to means of production is the same in every activity. Values and prices are different for the same rate of profit when the ratios of labour to means of production are different. And they are.

Marx was aware of the difficulty. He noted that in the actual market, because of competition and principle of mobility of capital, profits would be equalised and values would be transformed into prices. However, such transformation would leave the average rate of profit unchanged. The problem here is one of a proper unit of account. Suppose we adopt Sraffa's standard commodity as the medium to state prices and wages. It is easily seen that in terms of the standard commodity, profits would be the same in the transformation process; so would be the macro-value of capital and of output. The rate of profit would be undisturbed. Sraffa has therefore laid to rest the ghost of the transformation problem but there is no reason why we need Marx's law of value in that form.

As Bortkiewicz notes in his 'Value and Prices in the Marxian System's Marx's analytical apparatus was designed to show the institutional nature of distribution shares. No eternal immutable principles fix the shares. Wages could be deemed as deductions from potential profits; and profits could deemed as deductions from potential wages. Unlike Malthus, Marx believed that wages could be kept close to conventional levels without resort to potential tendencies for population to be larger and smaller at levels of wages other than the above. Wages were residually fixed at conventional levels because of the propensities of the capitalist system 'to accumulate and to accumulate'; the Malthusian theory had no relation to this. But the theory of value in terms of prices would not at all have implied any belief in unalterable and immutable distribution shares. Nor can Engels's hunch that there was some stage in economic history when values according to Marxian law of equal rates of exploitation obtained any empirical basis. But if one postulates a world of similarly pro-

^{8.} International Economic Papers, No. 2, 1952.

duced commodities with a similar lag and with no durable instruments and no joint-products one may construct a prototype in which Marxian values and prices are identical. Even if we bring in durable instruments, by treating the latter as non-basic, we may stick to the above prototype.

It is important to remember that there is nothing logically absurd in a distinction between prices and 'values'. In fact in a world of 'fixed coefficients' even if commodities are dissimilarly produced so long as we have a resort to standard commodity as a medium to state values and prices in, for every rate of profits there could be a set of 'values' and of prices. If one can postulate the existence of such computers which would give us both the results, so long as we are dealing with basic goods, we can get along. But Marx's procedure may perhaps be deemed as superfluous and never erroneous. It may be interesting to note that Marshall himself appears to have followed a similar procedure as Marx. Note that Marx proceeds to fix 'values' in Capital Volume I by ignoring constant capital. Add to this Marx's position that constant capital does not contribute to net product and not at all to profits. Marshall, in his great Principles, considered quasi-rent to be his most important contribution. In each short-period, prices were determined by prime costs. In the writings of Kalecki and Kaldor a similar viewpoint prevails. The full significance of Marshall's line of thinking makes his contribution exactly akin to that of Marx. In fact, Marx's 'values' are Marshall's short-period prices; and Marx's prices are Marshall's long-period normal values. It is surprising that the close affinity between Volume I of Capital and of Marshall's Principles does not appear to have been noted so far.

We have referred earlier to the evolutionary aspect of Marx's economic thinking. His own view developed out of a critique of the views of Smith and Ricardo. We have seen that he distinguished between values and prices and thus found a basis for criticising Ricardo. Ricardo was worried by the unpredictable effects of variations in the rate of profit upon the

prices of different commodities. No worthwhile discussions of distribution could be conducted unless one thinks in terms of an invariant measure of value. He adopted the device of treating gold as having a condition of production similar to that of the mean-commodity. Marx noted that the average rate of profit of society would be the same whether Marxian 'values' or prices prevail. He also argued that the aggregate profits would be the same. Marx would be correct to the extent that the unit of account is the standard commodity. All these we have noted, but a significant step forward is Marx's visualisation that the social results would be unaffected by the prevalence of 'values' or of prices. May we submit that Sraffa's standard commodity might have itself been evolved after a contemplation of Marx's brilliant intuition. After we get the standard commodity, there is no need for labour-values a la Capital Volume I.

There were two fundamental points of criticism in Marx's views on Smith and Ricardo. The first criticism which also was first from his thought-evolution was directed against the procedure of the classical economists in considering wages, profits and ground-rents as the respective rewards for the productive contribution of labour, capitalists and landlords. Classical economy has personalised the distribution categories. In this way it has forgotten that the three shares came out of surplus value plus variable capital. There was a tendency to consider 'value' to be a sum of wages, profits and ground-rents. One may agree that Marx had conclusively demonstrated the erroneous nature of the above conception.

A second point of criticism is more fundamental and emerges, according to us, only at a later stage of thinking, may be after Volume I of Capital. This is his profound criticism that the classical economists were wholly erroneous in decomposing the prices of commodities into the sum of distributive shares. This point of view, according to us, is not present in Volume I and in the earlier writing of Marx. It is there in Theories of Surplus Value, particularly in the discussion on

pages 343 to 367. It is there in the discussion in Part III of Volume II dealing with 'The Reproduction and Circulation of the Aggregate Social Capital'. It is there in the whole of Volume III. When we commence Volume III, we are introduced to a conception of price which is a sum of constant capital plus variable capital plus profits (or surplus value). As we go on to the penultimate chapter of Volume III, particularly Chapter XLVIII in Part VII dealing with 'The Trinity Formula' and Chapter XLIX dealing with 'Concerning the Analysis of the Process of Production', we are overwhelmed with an entirely new point of analysis. Marx completely rejects here the procedure of reducing the price of each commodity into only a sum of distribution shares. There is always constant capital and variable capital to be reckoned with. In other words, capital cannot be analytically decomposed into sums of distribution shares. Historically one may go backwards into time and emerge with a civilisation of savages. Even here, the savages must be assisted with some commodity residue which exists prior to him. While from the historical angle, capital can be conceived to have been formed out of the plough-back of the surplus value or of revenue into the accumulation process, the origin of capital itself has to be accounted for outside of the accumulation process. Marx himself is excited at this result. The closing portion of Volume III consists of thoughts gushing forth as it were from a fountain. Marx notes that classical economy has completely missed the profound implications of the existence of capital outside the distribution process.

In the analysis of the social reproduction in Volume II, Marx distinguished between the department producing instruments of production, and the department producing means of subsistence. He notes that the technical requirements largely govern the mutual exchanges. He even visualises a situation in which each department goes to the other department only to meet requirements which it cannot meet from within. The interrelations in the exchange process as concerning the

maintenance and renewal of capitals are distinguished from those connected with the utilisation of profits or the accumulation process. Accumulation or the transformation of a portion of net revenue into increments in capital is made to stand apart from capital itself. When once capital has been formed, it tends to maintain itself. The variations in the relative share of profits and of the amount of accumulation have no effect upon capital. In Volume III Marx notes the implication of all these to production theories. Capital, though largely formed out of surplus value, stands independent of surplus value after it has been formed. Distribution therefore can only determine whether capital can grow or remain constant. It cannot reduce existing capital away out of existence.

Just imagine what the implications of the above is for Marx's own labour theory of value! Howsoever back we go, a commodity residue always obtains. A fund must always precede a flow. How then are the prices of the component of commodity residue determined? It is here that Sraffa has taken over. Prices are mathematically determined by the exchange relations embedded in the technology of production and production is prior to distribution just as the stock of commodity residue is prior to production. There is always a labour residue along with a commodity residue. But if we treat labour as synonymous with inputs of circulating capitals, prices are independent of distribution. No doubt with various sets of distribution shares prices of commodities change in all sorts of manner. But this had nothing to do with distribution itself as such. One cannot conceive of invariant values of micro-capital intensities. The conception of an invariant structure of organic composition of capital in the face of distribution changes is untenable even though the macro-ratios measured in a standard commodity remained unchanged. Capital therefore has an invariant measure only when we think in terms of society as a whole; so are conceptions like wages, profits, national income, etc. From this angle, Marx was on right lines in his discussions of social aggregates in Volumes II and III. But can we say this of the entire body of orthodox economic theory from the period of 1870 up to the present day? If everyone has his desert Marx will certainly be spared any whipping!

If our analysis is along right lines Marx at the close of his system had reached a position in his thinking which had taken him much further than that reached by all the earlier economists and perhaps all the modern economists excluding Sraffa. The tremendous advance of Sraffa himself is because his work is related to those of Physiocrats, Ricardo and other classical economists and of Marx. Hundred years after Capital, economic science has regained its lost link with the penultimate portion of Marx's Capital, Volume III.

Marx was fundamentally a scholar. It was economics which absorbed most years of his life. No wonder at the closing stage of his life Marx must have glimpsed the secret of the origin of capital. The torch of the concept of commodity residue was handed by him to posterity. This concept forms the capital of Sraffa's revolutionary book, The Production of Commoditics by Means of Commodities.

Come on, Paul. Be an honest child. Where were you looking when the Emperor rode by?

Appendix

THE FALLING RATE OF PROFIT

An important aspect of Marx's thinking is his position on the rate of profit. Marx's contribution here should be studied in the context of the earlier models. The Physiocrats perceived in nature the source of 'net product'. Assume perfect elasticity in the supplies of all land-oriented goods and thus assume away the complications introduced by diminishing returns and differential rents. Assume that (a) the rate of population growth would be so adjusted as to be equal to the maximum rate of profits in the system, (b) the level of the wage rate would be equal to the conventional level of subsistence, (c) there would be no backlog of unemployment at any stage in the life-course of the economy, (d) only goods constituting circulating

capitals are used as inputs and as outputs. Interpret 'wages' in a matrix circular flow sense, and, assume that (e) the turnover period of each of the goods included in the basket of circulating capitals is the same and is equal to the length of an agricultural year. We can now derive a proposition that the economic system's capitals, size of output-flow, size of population and labour force would all be expanding at the maximum technically feasible rate, which, itself, would be constant year by year. The gross output-flow of the economy consists of two portions, each of which is expressed as a fraction of the gross output-flow; (a) the matrix wages-flow fraction, and (b) the matrix profits-flow fraction. If we divide the profits-flow fraction by the wages-flow fraction and multiply the resultant number by hundred, we get the percentage 'rate of surplus value' or the percentage 'rate of exploitation'.

Under the assumption stated earlier, capitals, wages and profits consist of similar commodities taken also in a similar proportion. Profits can be here perceived as a physical relationship between inputs and outputs; and within the framework of the assumption, profits are also seen as the relation between the volume of population and of labour (abstracting from complications of technical labour) that exists at the beginning of the year and the increment in the volume of population and of labour that takes place over the year. The rate of profits in terms of commodities and in terms of labour are equal in this model. The profits in terms of the volume of labour are proportionate to profits in terms of commodities.

From the above model, let us go to the case in which, because of diminishing returns, the output to input ratio in circulating capital goods goes on steadily falling. Here, the rate of profit in terms of commodities and in terms of labour will be steadily falling year by year.

Suppose now we assume no diminishing returns; but the population growth rate is now no longer deemed to adjust so as to be equal to the maximum rate of profits. Suppose the population growth rate, which was once equal to the maximum rate of profits, and, which was adjusting to the latter for some time in the life-course of the economy, becomes autonomous and manifests the property of being constant but lower than the maximum rate of profits technically feasible in the sphere of commodity production had the population growth rate been wholly induced. In our model, given the other earlier stated assumptions, the ruling rate of profit has now to be lowered to be equal to the constant but autonomous population growth rate. This is the case where the maximum physical surplus in terms of commodities becomes larger than the surplus which is required to be kept as an increment in the circulating capital goods to be advanced as conventional subsistence wages for the growth in population and in production.

What happens now to the circulating capital goods which have become surplus as capital in that form? What happens to the labour engaged in the replacement of the above 'surplus' of circulating capital goods? What happens to the circulating capital goods advanced to the above labour which has now become surplus? Assuming vigorous competitive conditions, and a

propensity on the part of the capitalists to seek to plough back all their surpluses, wages must now tend to rise to absorb the whole net-output potential of the surplus labour engaged in the replacement of the surplus of circulating capital goods in that form. It is possible that the increment in wages may be of the same goods and in the same proportion. In that case, the composition of goods advanced and of outputs remains the same. It is possible that the surplus labour is used to produce goods other than the circulating capital goods. This creates a complication as goods other than circulating capital goods enter as luxury goods. But the essential properties of the model do not undergo any change. The rate of profit would have, however, fallen; and the wage-rate now assumed to be taken in the form of circulating capital goods expressed as a fraction of outputs assumed also to be wholly taken in the form of circulating capital goods has risen. We may say that the national matrix wages-flow fraction has risen, and the notional matrix profits-flow fraction has fallen. The percentage rate of surplus value has fallen; so too has the rate of profit fallen.

In the above model, the workers find their absolute consumption well-being going up, as the population growth rate has become autonomous and constant, at a rate below the maximum rate of profits. If this is the vision of a capitalist society, one cannot but assent that it is not an unpleasant prospect. What is more, any improvement in the output to input ratio, i.e. any rise in the maximum rate of profits cannot but augment the consumption well-being of the working class. Note that sometimes improvements in productivity may take the form of a rise in leisure.

One essential condition for the emergence of the above happy prospect is the prevalence of competition. Suppose competition prevails, can the capitalists be deemed to have no propensity to plough back all their potential surplus? Now, this assumption cannot be reconciled with the postulate of competition. Any individual capitalist who has a higher propensity to plough back his potential profits than is the general propensity will tend to drive out other capitalists. His relative share in the total capitals would be expanding at a faster rate than the share of others. This may occur first in his own business and then spread to other business as well. Thus all capitalists will try to expand their relative shares. This cannot but boost wages up and bring down profits. It would therefore be natural to assume that, given competition, capitalists cannot but plough back all their surpluses. If wage-earners save, the disposal of their income thereof follows the same properties as that attributed to the wealth and income of capitalists.

Within the framework of our model, a rise in wages implies a fall in profit rates. A falling tendency of the profit rate has now to be accounted in terms of the falling tendency of the autonomous profit rate. Thus in the pure circulating capital goods as sole capitals model there are two reasons why the rate of profit must have a tendency to fall: (a) a secular reduction in the output to input ratio of circulating capital goods as inputs and as outputs, (b) a secular tendency to fall in the rate of population growth

which is deemed autonomous. In both these cases, population growth rate will be declining. In one it is a consequence of the operation of the law of diminishing returns. In another it is a consequence of social volition.

All the above models can have only circulating capital goods in their list of commodities if they are transformed into circular flows, of only the same goods taken in the same proportion as inputs and as outputs. (It does not matter if the basket of goods includes raw and crude materials which indirectly enter into the production processes of subsistence goods.) In the actual world, we have to permit the scope for machinery in the stock of capitals as inputs and for commodities going for the physical construction of and replacement of machineries. As noted, machinery cannot be part of commodity residue in the historical sense. Machinery enters at a later stage in the life-course of an economy; the pure circulating capitals model is a necessary precursor to the 'mixed capitals' model. The entry of machinery, hence, presupposes the existence of methods of production without machinery.

Ricardo introduces machinery at the stage at which the rate of profits has fallen or is expected to be falling. In the Ricardian model, this is so because of the operation of the law of diminishing returns in the production of circulating capital goods. In the Ricardian theory, (a) labour is indispensable in the production of every commodity, and (b) circulating capitals as advances are a precondition for the existence of labour, and (c) the rate of growth of circulating capitals determines the rate of growth of labour-force. With diminishing returns, the long-term rate of profit is falling. Hence, the prospective rate at which growth of circulating capital goods can occur is falling. The growth rate of population and labour cannot therefore be sustained at constant percentage rates. A fall in the rate of profit is a rise in the matrix-wage-flow-fraction. It is a reflection of the rise in the cost of production of goods necessary to sustain a unit of labour's productive power.

The adoption of machinery renders a portion of current annual labour and population redundant; thus even though the rate of profit continues to be constant at its reduced rate, the rate of growth of labour too has been reduced and kept at a lower rate corresponding to the reduced rate of profit. If the latter is steadily falling, so would the rate of growth of labour. But the machinery content in total capitals would be rising. Ricardo notes that after machinery has been brought in, a portion of annual labour is diverted from producing circulating capital goods to producing goods needed for maintenance of machinery due for renewal. Secondly, as some labour has been diverted to produce machinery when it enters, the quantity of circulating capitals to be annually replaced would have been reduced. Thus machinery affects adversely the circular flow of the output of circulating capitals, and its maintenance constantly diverts a portion of labour from production of circulating capital goods.

Thus in Ricardo, if we assume, (a) diminishing returns, and, (b) existence of more than one method of production for each or some of the commodi-

tics, there will be a tendency towards a growing resort to machinery as the rate of profit goes on falling. The resort to machinery postpones the period taken to reach the stationary state. As the proportion of machinery in capitals is raised, unemployment cannot but ensue. As a result of the latter, the capitals' proportions will not be reversed and the proportion of machinery in capitals will not be reduced. Machinery thus 'economises' on the inputs which consist of circulating capital goods.

Ricardo also notes that, at any point of time, the rate of profit would remain unchanged if the capitals' proportions are varied more in favour of fixed capitals as against circulating capitals. Such variation would cause unemployment but the rate of growth as given by the rate of profit would be unchanged so long as the rate of growth of population and labour is unchanged. Variations in favour of fixed capitals thus cause a disequilibrium between available labour and employment labour, the latter quantity being given by the quantity of circulating capitals.

When machinery is introduced, the inputs and outputs of each year consist of (a) machinery, (b) circulating capitals (used as such directly), (c) raw and crude materials for replacing worn-out portion of (a), and (d) raw and crude materials for (b). Postulating just self-replacement, the machinery at the beginning of the year emerges as such at the end of the year. When there is a positive profit-rate, assuming expansion in a similar form, each component must have an expansion at the same rate. Suppose we introduce the assumption that workers live on air, but are necessary for production. Items (b) and (d) would go out. We have inputs of (a) and (c) only. Machinery, with labour, working on raw and crude materials, basic in the manufacture of machinery, replaces worn-out machinery as well as the crude materials and constructs new machinery and adds to the stock of crude and raw materials. The profits are now only in terms of materials and of machinery. Suppose diminishing returns accrue in regard to the crude materials, the rate of profit will now be falling; there is also a possibility for a switchover to machinery employing new sources of materials, etc. The falling tendency of the rate of profit is a universal phenomenon. It is independent of the assumption of diminishing returns in agriculture. Given the state of arts, production presupposes the utilisation of commodities for production of commodities and all commodities have their source in land, which is interpreted in a wider sense than just agricultural land.

Even if production consists of inputs of machinery and of basic goods required for the above and of outputs of machinery and of basic goods, the rate of profit can go on falling.

Suppose the maximum rate of profits is in excess of the rate of population and labour growth. Labour is assumed not to require any wages. In this case, the physical surpluses consist of quantities of machinery and of basic goods required for the above; these surpluses are larger than those required for being added to increments in capitals in the context of the given rate of population growth. There is now scope for raising the proportion

of machinery in relation to the proportion of basic materials (other than machinery) in the inputs-mix. Such variation in the proportion automatically implies a curtailment in the volume of employment. As the proportion of machinery inputs to total capital inputs goes on rising there tends to be a rise in the proportion of unemployed to total labour force. Out of the basic goods inputs advanced as capitals, a higher proportion will now have to be devoted to replacing the worn-out machinery and a lower proportion to increments in the production of basic goods and of machinery. Thus, the rate of profits would be falling as compared to the case when the rate of population growth adjusts to the values of the maximum rate of profits so as to preserve equality between the two rates.

The postulate of zero wages demonstrates conclusively that, the rate of profits will have a tendency to fall under conditions in which (a) the ruling rate of profits is equal to the maximum rate of profits, and (b) the maximum rate of profits being in excess of the ruling rate of profits. The first case occurs when there are diminishing returns, and when methods of production involving machinery are brought in; the falling rate of profit goes with a rise in the content of machinery in total capitals. In the second case, the rise in the machinery content of capitals occurs despite the absence of diminishing returns. The physical surplus of basic goods seeks an outlet in raising the machinery content; the consequent rise in depreciation provisions reduces the volume of profits and thus the rate of profit.

The transition to Marx's version of the falling profit-rate hypothesis may now appear as an automatic further step. Marx did not accept the wagepopulation link of Ricardo and Malthus; nor did he set much store by diminishing returns. The maximum rate of profits would be in excess of the ruling rate of profits. Labour could not be taken to live on zero wages. Advances would include items of 'constant' and 'variable' capital. The capitalist system, in the absence of sustained productivity changes in the 'variable' capital sector, would not permit wages to go up and remain permanently at a higher level. With the fall (actual or expected) in the profit-rate because of a rise in wages, the machinery content of capitals would go up. The proportion of annual labour-power devoted to replacing 'constant' capitals would be raised and that devoted to replacement of 'variable' capitals would be reduced; the advances in latter form would now form a smaller proportion of total capitals. The mass of profits would naturally be reduced; and the rate of profit would have fallen. Once over, improvements in the output-input ratio in the variable capitals sector would again lead to a further scope for the raising of the machinery content in total capitals.

Thus in Marx as there is no belief in the proposition that the rise in machinery content in given capitals leads to a rise in net product per worker, a rise in the machinery content in capitals leads to an inversely proportionate fall in the rate of profit. Note that the Marxian position is the antipodes of all neoclassical positions in this respect. Almost all neoclassicals assume net productivity per worker to go up with a rise in the

machinery content in total capitals. This is the basis of the dogma that capital accumulation at rate faster than population growth (assuming initial full employment and unchanged technology) will lead both to some fall in the interest rate and some rise in real wage rates. The 'popular' impression that a rise in the organic composition of capitals for society is associated with a rise in net productivity per worker has no basis in Marx's own writings. This impression has been created by some neoclassical opponents of the labour theory to demonstrate an internal contradiction in Marx, 'to break Capital from within Capital'. (Witness also the parallel misinterpretation of Ricardo's theory by the orthodox school).

Let us now recapture the links in the chain of Marx's reasoning concerning the motion of capitalist society:

- a) Commodity production under capitalism is solely motivated with a view to maximising the rate of accumulation of capital.
- b) Accumulation is conditioned by the profits accruing in each year; these profits are at a maximum when the difference between the net product (after rents) per given volume of employment and the matrix wage-bill for the same is at a maximum. The rate of profit is a ratio between the volume of total capitals and the mass of profits (in value).
- c) The mass of profits being proportionate to the size of the matrix-wage-bill, or to the quantity of 'variable capital', the rate of profit will vary directly with the proportion of variable capital to total capital, or inversely with the proportion of capital embodied in machinery to total capital, given the quantity of the total capital.
- d) The rate of profit cannot exceed the rate of growth of population, given full employment. If the mass of profits as determined by applying the 'ratio of surplus labour to necessary labour' to the volume of variable capital exceeds that required to yield a rate of growth equal to the rate of growth of population, wages would have a tendency to rise and profits would have a tendency to fall. But the proportion of capital embodied in machinery to total capitals will so alter as to cause sufficient unemployment to pull down the wages or to keep it from going up. However, the absolute or relative diminution in variable capital will connote a fall in the rate of profit but with no sizable rise in the real wages or no rise in it at all.
- c) The life-course of capitalism will thus be marked by a rhythm of (1) rising profits, falling wages, rising employment, and (2) rising wages, falling profits and falling employment.
- f) Hence, so long as (d) and (e) obtain capitalism will never be characterised by steady growth; and, while innovations can temporarily prevent the rate of profit from falling, by raising the permanent rate of surplus value (from its usual value), they make the subsequent position worse. When innovation is incipient or weak, the forces of mechanisation will be conspicuous and strong.

g) Unless innovations can be expected in a successive sequence, the secular tendency of the rate of profit is to fall.

Suppose one finds that since 1870's the relative share of wages and of profits has been constant and that the rate of profit too has been aboutconstant. Suppose the level of real wages has risen. What do these tendencies indicate? Absence of cycles? No, there have been cycles; and, even after World War II, several recessions. Absence of tendency towards mechanisation? Perhaps not. Mechanisation with rising productivity? Productivity rise, yes. But if innovations have been rapid, we cannot attribute the gains to mechanisation. How do we assert that the so-called relative share in growthcontribution attributed to 'capital' on the basis of the marginal productivity apparatus is not wholly due to the technical changes, assuming we agree on what is 'capital'? Why not due to increasing returns, improvements in the quality of labour, improvements in mobility, greater spread of knowledge? Why not also to discoveries of new natural resources, to inversion of the Ricardo-West order of cultivation? Unless we can win our 'own applause' for a correct theoretically-satisfactory analytical explanation of the sources of growth, how dare we decry the analytical apparatus and vision of Marx? Is it or is it not true that the consequences of massive automation loom large in many countries? Are not economists in these countries worried by the great leeway for automation when innovation becomes weak?

The statistical procedures to find out the growth-contributions of 'capital' and 'labour' assume that if we increase 'capital' per worker, such an increase being noted by a rise in 'capital-intensity' per worker, 'capital' referring predominantly to 'fixed capital', there tends to be an increase in 'net product' per worker. In a static setting, different industries are associated with differences in 'capital per worker'; from this we can only derive the proposition that, if wage-rates are similar in different industries and there is quasiperfect mobility of capital, there tends to obtain an equal rate of return to capital in all industries; hence, the differences between the net product per worker and the wage are proportionate to differences in 'capital' per worker! But this is Marx's own position. We cannot conclude from this that if 'capital per worker' in the entire economy goes up, there must occur an increase in net product per worker, and that such an increase must be attributed to the increase in 'capital' per worker. The issue is not about the extent of the increase in net productivity, nor about the portion of this to be specifically attributed to 'capital', but about whether given the postulates of competition including absence of returns to scale, and assuming away innovations, major or minor, there can be any increase in net product when 'capital' per worker is assumed to go up; any postulated rise in wages may be solely due to the leakage of a portion of capital from being used for a rise in the organic composition of capital per average worker in the economy.

Let us not baulk the analytical issue, which is not just an issue in the history of doctrines. Marxian analysis does not become nonrelevant if we permit some rise in the level of real wages and some rise in the organic

composition of capital. The latter is not the cause of the former; it is the preexistent positive ratio of the net product to capital that causes some rise in real wages; and in a dynamic context, it is innovation that is the cause of the rise in the ratio and hence of the scope for a rising trend in real wage-rates. Mechanisation is always at the cost of a potential rise in real wages. Can the neoclassicals refute this proposition?

If one has to explain the mechanism of (a) a rising content of machinery in total capitals and (b) a falling tendency in the rate of profit, one cannot but follow the same procedure as Marx did. Without first showing that the maximum rate of profits is greater than the rate of growth in labour supply and of population growth, we cannot explain the choice the system faces either in allowing the wage-rates to move up and thus use up the output of the potential surplus-labour for raising consumption of the mass of the workers or in causing the machinery content of capitals to go up and thus use up the output of the potential surplus labour in the production of machinery and of materials related to it. The first choice is open to a society organised on principles other than that of capitalism; hence, the second course is the natural course in capitalism. If machinery is permitted a role as a primary or basic commodity which enters into the causal determination of the technological output to input ratio, then Marx's procedure would be dead wrong. The maximum rate of profit (i.e. the rate of profit in the sole commodity-form) would be unchanged whatever the composition of capitals, assuming that corresponding adjustments in labour-availability takes place. This position implies as a corollary, given the assumption of labour-availability, that machinery happens to be an integral part of the composite of basic goods even at the earliest historical stages of simple commodityproduction. The commodity-residue must always be assumed to have included machinery!

The above is not the position of the Physiocrats, Ricardo and Marx. Ricardo and Marx would include commodities out of which machinery is constructed as basic at the stage in which machinery is brought in and a major portion of basic goods are produced with the aid of machinery; at a stage in which machinery and materials specific to it are inputs and outputs, machinery would also enter as a component of the standard commodity. But in a world in which labour needs advances of circulating capitals to subsist, and circulating capital goods themselves can have an independent rate of profits in a pure commodity-form, abstracting form payments of wages and constraints on labour availability, it is difficult to see how machinery can enter in as a basic goods. Besides, there is always the issue of historical reduction of capitals to commodity-residue.

Indian Capitalism and Its Crisis

MOHIT SEN

THE PERILOUS POSITION OF India's economy and the downturn it has undergone in 1965-66 and 1966-67, as well as the expectations of a climbout in 1967-68, raise some interesting theoretical problems which Marxist economists might do well to consider. It is all the more appropriate that some effort should be made in this direction in the year of the centenary of the publication of Volume I of Das Kapital. The contemporary relevance apart, there is need for some attempt at a tribute, the best one can do despite the hopeless inadequacy.

While it is true that the elements—Marx never seemed to have got the time to work out a systematic comprehensive theory—of the Marxist concept of economic crisis are to be found in Volume III of Das Kapital, yet the basis on which rests the whole superstructure of the Marxist economy of capitalism, i.e. the labour theory of value and surplus value, is to be found fully worked out in Volume I, which was the most pondered and polished work of the greatest thinker that ever lived. Without understanding capitalism as the economic social form of the appropriation of surplus value, resting on the wage-labour-capital contradiction, and the nature of capitalist accumulation, any theoretical model of crisis would lack roots. The relatively distinct and quite definitely interrelated disproportionality, falling rate of profit and consumption lag

aspects of a typical capitalist crisis are, after all, the manifestations of a deeper and the most profound contradiction of capitalism, i.e. the increasingly restricted private appropriation of increasingly socialised production. And this latter contradiction has been splendidly and passionately mirrored in the searing and yet scientific pages of Volume I of Das Kapital.

It became necessary, therefore, to make this seeming digression in view of a certain current in circles fairly close to Marxism which asserts that everything of basic importance in what is now called Marxism was left unfinished by Marx. The definition of class is the point at which the manuscript of Volume III of Das Kapital breaks off and Engels himself admits that manuscripts left behind of Volume II and Volume III were in a dreadfully unfinished state—and in the famous handwriting of Marx, which the author is on record as saying that he himself could not often decipher! All this is true and leaves room for a great deal of controversy—which has, indeed, historically taken place and which continues today-and for various kinds of 'what Marx really meant' writings. But the logic of capitalism as the logic of crisis, the intervention of class struggle on the basis of this logic and producing its impact on this logic, the inevitable result of this interaction ('the expropriators are themselves expropriated')—all this is to be found in Volume I. It would seem, therefore, that there is little basis for overscepticism, for making unnecessary and rash 'new' beginnings when the vantage point has already been secured for human thought a century ago.

It is also, perhaps, necessary to add that the Marxian theory of capitalist crisis is also a theory of growth, i.e. crisis does not exclude growth and the fact of growth itself along capitalist lines is pregnant with crisis. Complete stagnation and automatic collapse as against rising production and technological revolutions are 'false' opposites or, rather, importations of a subjective nature into the really contradictory nature of capitalist development. Fastening upon either of these 'false' opposites at a given moment of time when seemingly they

have made their appearance (one must use the old distinction between actuality and reality) often enough leads and has led to wrong conclusions and a certain bewilderment in the face of succeeding developments. Those who have attentively followed or participated in the various efforts at a Marxist analysis of the postindependence economic developments in India would, perhaps, better appreciate the harm wrought by these 'false' opposites. (In contrast to the onesided emphasis so often made in the study of this complex progress one would like to point to a somewhat neglected classical work of Lenin, The Development of Capitalism in Russia, published in 1899. The growth-crisis duality and the structurally modifying nature as well as the agonising and inhibiting character of capitalist development are splendidly illustrated in this most painstakingly written work.)

Finally, in any consideration of the nature of India's capitalist crisis one has to take note of certain extremely important elements of a precapitalist, developed capitalist (or senile capitalist) and postcapitalist nature which impinge upon the phenomenon. Indeed, one can legitimately question the extent to which a completed capitalism and, therefore, a self-generated crisis has found a home in India. Every downturn or even a very sharp and pervasive one such as we are witnessing for the past two years, need not be an indication of crisis as it is understood in the Marxian sense. One would find so many specific features as to make it not a very special case of a capitalist crisis but rather a crisis of the capitalist path, of a structure of production relations and of policies flowing therefrom which are yet transitional. One would also discover the distortions induced by an industrial-financial oligarchy that has not yet shed its merchant-moneylender ties or propensities.

One would come across what has been called the 'dependence coefficient', the alarming extent to which the attempt to 'end aid through aid' has placed our economy in a position of vulnerability to imperialist pressure and, hence, to 'exported' crises. This is not merely a matter of being tied to the imperial-

ist markets but of being enmeshed in the imperialist division of labour, of occupying what has been called a 'special position' in that division of labour. One would like to point out that this entails also neocolonialism adapted to the specific conditions of India, i.e. of inducing a particular type of capitalist development, a collaborationist, dependent capitalism.

Additionally, there is the extremely important material factor of that branch of state capitalism which takes the form of productive assets in the industrial and, to a lesser extent, in the agricultural sphere. While not ignoring the significance of other types of state capitalist intervention—budgetary, institutional finance and trade—one would like to focus attention upon the industrial public sector. At the end of 1965-66 the number of government companies stood at 214 with a paid-up capital of Rs. 1,241 crores compared to about 27,000 nongovernment companies with a paid-up capital of Rs. 1,515 crores. In 1955-56 the paid-up capital of government companies was Rs. 66 crores compared to Rs. 958 crores in the nongovernment sector. The deposits of the State Bank of India and its subsidiaries came to Rs. 1,109.2 crores as compared to Rs. 3,403 crores in the private sector. It has been calculated that the formation of assets in this sector proceeds at about twice that of the largest units in the private sector. And the rate of industrial employment in the public sector has been over four times that of the private in the past quinquennium. It is here, too, that the value of the partial and restricted linkage with the socialist system's division of labour manifests itself with special clarity. It is scarcely an exaggeration to state that without socialist aid this type of state capitalism would scarcely have appeared at all with its heavy industrial complexes, its bringing into being in India in substantial measure Department I of the Marxist scheme of reproduction, providing a base for independent development and noncapitalist transition. It should be mentioned here that this sector provides also the means whereby the representatives of what Marx called the 'really revolutionising path' of capitalist development could find the necessary impetus to forge ahead and attenuate their links with both foreign and indigenous monopolies—the small- and medium-scale industries of Department I, in particular. It is this sector again that provides the material basis for the limited state capitalist programming that has been a marked feature of the past decade and which is now threatened with extinction. Not only does this type of state capitalist development advance the country, to an extent, towards economic independence but it also mitigates tendencies towards crisis, less dependent as it is on profit rate and more free of the shackles of impoverished personal consumption.

But the capitalist aspect of Indian state capitalism cannot be ignored either. There are three points which one would like to make in this connection. First is the element of disproportionality. There has been, and inevitably so, woeful failure to understand and implement the law of proportionate balanced development, of understanding indivisibilities, linkages and physical balances. Haphazard growth and lack of effort to give plan directives—at least in this sphere—the force of law is precisely a specific form of the anarchy of production, of the supremacy of market demand which is a characteristic feature of capitalist development. This aspect has come very much to the fore in the recent crisis.

Second, the mode of financing public sector industrial projects is typical of the stage of the primitive accumulation of capital with its inordinately iniquitous indirect taxation, its inflation and its continued dependence after a decade of surplus upon alienation. Granting all the problems of gestation period, of the nature of a large proportion of these enterprises, still the internal surplus generation and the plough-back rate has been extremely inadequate due, largely, to bureaucratic delay and inefficient management. Dependence on foreign aid in this sector has been too heavy and too stretched out, very often against the expressed advice of experts from socialist countries—the Cambay off-shore oil exploration is a particularly flagrant example of this lack of an attitude of self-reliance. Pricing

policy sabotage as also of deliberate simultaneous overlicensing in the private sector of the same line of production so as to saddle the public sector units with vast surplus stocks and heavy inventories due to fear of competition, is also a surpluscreation inhibitor—the Madras Surgical Instruments Factory comes at once to mind. The waste also in the 'competition' with well-established private sector units due to the dogmatic aversion towards nationalisation also retards the growth of surplus—the oil industry, for example. And, of course, the steadfast refusal to bring within the public sector such units of Department II that would provide feedbacks as also demand for Department I. The failure to insist upon the buying of indigenously produced machines and intermediates and the completely crazy import policy, now generously 'liberalised' hits, above all, the utilisation of capacity and recouping of costs in the public sector.

Third, attention has to be drawn to a growing but, as yet. insufficiently analysed feature. Corruption is a marked feature of all public sector projects and of state capitalist intervention in general. This corruption is, in the last analysis, a parasite upon the generation and speed-up of the profit-making capacities of the state capitalist units, a kind of built-in element of subserving the private monopolists. It breeds also, both from among the top bureaucrats and the poilticians in power a special type of bourgeoisie—a bureaucratic bourgeoisie. In a paradoxical sense, the leading element of 'modern' or 'pure' capitalism in India is producing the worst type of precapitalist bourgeoisie, a new hybrid monster reverting back to the merchantmoneylender pattern. Obviously, the corrupters are not only to be found within the country. Thus, this bourgeoisie bourgeoning from the bureaucracy becomes the vehicle of neocolonialist capitalism. It is, therefore, far from sufficient merely to pick out the number of persons who flow from the public to the private sector or to point to the 'sons and sons-in-law' racket. One has to go behind appearances and see the essence—the gradual emergence of a new and most reactionary stratum of the bourgeoisie. We have seen the danger such a stratum poses to those countries which have embarked upon the noncapitalist transition to socialism—Ghana, Indonesia and now the saboteurs in the UAR.

A great deal has been written by Marxist and petty bourgeois radical economists about the formation of the Indian industrial-financial oligarchy. The Monopolies Commission Report has provided the information that the 75 oligarchies (comprising 1,536 companies) have assets worth Rs. 2,605.95 crores and paid-up capital worth Rs. 646.32 crores in 1963-64 accounting for 46.9 per cent of all the assets of the private corporate sector and 44.1 per cent of all its paid-up capital (the global figures are Rs. 5,552.14 crores and Rs. 1,465.46 crores respectively). This, of course, underestimates the real degree of the centralisation of capital and concentration of production. The control of these 75 oligarchies lies in far fewer houses, not more than about 15. It is these syndicates which really have the private sector largely at their command and strongly influence governmental policies, especially in the present period. Besides the Big Five Banks with deposits of about Rs. 200 crores and above control about Rs. 1,400 crores of deposits accounting for about 40 per cent of the deposits of scheduled banks. Through the banks and by other means a chain is built with the wholesale traders, millers and landlords in the villages, forming a formidable power as far as the national economy is concerned.

The parasitic nature of this oligarchy is accounted for not only by its historical origin—merchant-moneylender with a partial transformation into factory owner, missing the crucial manufactory stage and the roots of emergence from a differentiation process within the petty commodity producers—but also by its continuing precapitalist traits. The reports of the Vivian Bose Enquiry Committee, the Birla scandals, the Caco use of surplus funds and the enormous amount of black money (estimated to be about Rs. 3,000 crores some three years ago), all testify to the lumpen nature, the commercial character and

essential keenness of profit-upon-alienation complex of the top stratum of the Indian bourgeoisie. A further point to be noted in this connection is that this oligarchy emerged not as a superstructure upon the production base built up by the competitive phase of capitalism but mainly as a conversion of speculative capital and the cornering of an imperialist-restricted market. Its growth in breadth rather than specialisation through development in depth is also a noteworthy feature. Indian monopolists were born senile. Their control of the important consumption industries and the monopolistic price-fixing therein are important aspects of the inflation which accompanies the present crisis. A low surplus yield for purposes of productive investment is a part of the built-in mechanism of this apparatus.

The peculiar nature of capitalist growth in the industrial sphere, with state-capitalist and oligarchic structures becoming increasingly matched and at the same time mutually complementing each other in many ways but also reaching a stage now where the expansion of one will take place at the expense of the other, is based on extreme concentration of production. The Annual Survey of Industries, 1963, published by the central statistical organisation, reveals that the large-scale factory sector (owning fixed capital of Rs. 25 lakhs and above) while being only 2.8 per cent of the factories account for 85 per cent of the fixed capital, 48 per cent of the total employment, 54 per cent of output and 64 per cent of value added by manufacture. If one defines the large-scale sector as consisting of those factories employing 50 or more workers with power or 100 or more workers without power, the concentration of production appears to be even higher. It then accounts for 91 per cent of the total productive capital, 82 per cent of factory employment, 83 per cent of the value of gross output and 89 per cent of the value added by manufacture. Between 1959 and 1963 while factories in the large-scale sector grew by 23 per cent, capital employed went up by 132 per cent, employment 17 per cent, gross value of output 73 per cent, value added by manufacture 68 per cent. It has been calculated that the large-scale sector has a more than 70 per cent share in the petroleum, cement, electric light and power, motor vehicles, industrial chemicals, pulp and paper, breweries, railroad, textiles, iron and steel, rubber, motorcycles, jewellery, aircraft, sugar factories and refineries, cork and wood.

These facts have been assembled not to equate concentration of production with centralisation of capital but to give an idea of the already evolved structure of the industrial portion of Indian capitalism which makes its growth—in the Indian scale of operations—subject to lumpiness and discontinuities on a rather slender production-technical base, making significant new entry into any field more than problematic. One must not, of course, confuse the large-scale sector with the oligarchy, not merely because of the phenomenon of state capitalism, but also because the capital involved is not by any means gigantic. Nevertheless, there is a link between the two. At the same time one has to take note of the comparatively large size of the small and medium sectors as far as the number of factories. employment, gross output and value added factors are concerned. This would represent a broadbased and simultaneously expanding capitalist sector representing, perhaps, the 'revolutionising' capitalist element.

A study of the growth pattern of the 101 industrial giants (according to the survey of 1965-66 made by The Economic Times Research Bureau) has a revealing story to tell. These giants account for over 40 per cent of the total public limited sector in India (nonfinancial, nongovernment) and cover an extensive range of industries. The total assets of these companies increased at about nine per cent per year in the period 1961-62 to 1965-66 with net fixed assets showing an annual percentage increase of about 7.5 per cent. In 1965-66 (the last year for which figures are available at the time of writing) of the Rs. 237 crores increase in total assets, depreciation and reserves accounted for about 49 per cent, fresh capital for about 5.3 per cent and borrowings for about 34 per cent (of

which by far the largest amount came from banks). As compared to the percentages in the four years 1961-62 to 1964-65 we find that the contribution of borrowings to capital formation has gone up by about six per cent while the contribution of fresh capital has declined by about two per cent. The gross profits made by these companies went up from Rs. 200.99 crores in 1964-65 to Rs. 218.63 crores, profits after tax going up from Rs. 88.02 crores to Rs. 95.02 crores. Gross profits whether as percentage of sales or total capital employed remained well above 11 per cent and profits after tax as a percentage of net worth edged up to almost 11 per cent. These figures not only give an idea of the power of the big industrial units in the private sector but, considering their relationship with the banks, it shows the degree of their ability for self-financing. It reveals an almost complete independence of the stock market and a fair degree of autonomy from immediate fluctuations in consumer demand. While these figures demonstrate the stupidity of the argument that nationalisation would be taking over of 'junk' they also show that the rate of assets formation is rather low, comparing quite unfavourably with similar giants in the public sector.

The very rapid growth (relatively speaking) of these two forms of capitalism in the industrial sphere underlines the fact that in this sphere, at any rate, India has moved quite a distance from the period of colonialism. The industrial sector is evidently the leading sector of our national economy and the capitalist element is very well entrenched therein. Extended reproduction, increasing organic composition of capital and the process of capitalist accumulation have acquired a certain rhythm. Any analysis of downturns, slowdowns, holdups or crisis in our economy can no longer proceed on the assumption that these would be the result of solely extra-capitalist or external forces as was the case previously. Elements of a cyclical crisis are clearly maturing in India, sharply demarcating the country from the other states of the third world or newly-independent countries. At the same time it should be noted

that the state capitalist sector has reached a most important stage in its development where it would be in a position to challenge the biggest oligarchies, where its expansion comes up against the resistance of these oligarchies and where its role as well as future become the centre of the intense struggle that develops increasingly in our country.

At the same time, the specifics of the situation of the development of Indian capitalism can best be appreciated if we bear in mind the famous aphorism of Marx (which he made in the context of the stage of development reached by Germany in the 1860s): (it) 'suffers not only from the development of capitalist production, but also from the incompleteness of that development. Alongside of modern evils, a whole series of inherited evils oppress us, arising from the passive survival of antiquated modes of production, with their inevitable train of social and political anachronisms. We suffer not only from the living but the dead.'

The first and most important of the 'dead' forces from which we are constrained to suffer is the continuance of dependence and even its accentuation climaxed as well as deepened by the devaluation coup. One is the continuing steep dependence, technically and products-wise, on imports. (Some of the dependence on imports of raw materials is a matter, of course, of economic geography but much more frequently it is the result of conscious refusal to carry out rapidly extensive surveys and working up of discovered deposits. Oil was a case in point. Now copper, zinc and pyrites are clear instances of this deliberate failure to go rapidly ahead on the road to self-reliance.) To be dependent to the extent of 54.5 per cent in textile machinery. 61.8 per cent in metal working machine-tools, 17 per cent in steel (in the crucial alloy and special steels this is likely to be trebled), 25 per cent in aluminium (the position of other nonferrous metals, especially copper, is much worse rising to over 80 per cent), 21 per cent in bleaching powder, etc. For the overwhelming position of these imports (which includes spare parts and viatl components) India depends on the imperialist powers and has to pay out in foreign exchange which she does not possess. The \$900 million of maintenance imports which India had to go through all sorts of humiliation to secure in the past financial year indicates the degree of dependence. There is one estimate which claims that out of the Rs. 6,596 crores worth of industrial production in India, imports accounted for over Rs. 1,000 crores or nearly 16 per cent (the proportion has surely risen, probably to 25 per cent). In the fields of designing and other aspects of technical know-how the dependence is still considerable—again due to consciously adopted antinational policies.

This technical and materials dependence is more than matched by the staggering reliance on foreign aid. Excluding PL-480 aid, the total amount of aid secured (procured would, perhaps, be a more appropriate word) up to 31 March 1967 comes to Rs. 7,204.44 crores, the value of orders placed to Rs. 5,934.88 crores and aid disbursed to Rs. 5,041.12 crores. Let it be remembered that our national income (at current prices in 1964-65) came to Rs. 20,000 crores only. The repayment of these debts, especially those which have to be made in free foreign exchange, has become one of the acutest problems facing our official planners, who lack the courage to call for a unilateral moratorium on debt repayments for, say, a decade. The picture is considerably darkened by the trend in the matter of dependence.

Disbursement and grants and loans as well as PL-480 arrivals increased from Rs. 338 crores (\$711 million) in the initial year of the Third Plan to about Rs. 772 crores (\$1.6 billion) in 1965-66. Gross inflow of foreign assistance (including food aid) was double that during the preceding five years. Net external aid financed 37 per cent of commodity imports during the Third Plan compared to 27 per cent during the preceding plan period. The proportion of public sector plan outlay covered by net budgetary receipts from foreign aid rose from about 20 per cent in the Second Plan to about 29 per cent in the Third Plan (Economic Survey, 1966-67).

The composition of utilised external assistance shows a sharp increase in the proportion of loans repayable in foreign exchange—the percentage going up from 42.5 in the Second Plan to 61.2 in the third and to 63.0 in 1965-66. Besides 'the return flow of interest and amortisation absorbed nearly 19 per cent of gross official assistance during the Third Plan, compared to 8 per cent during the preceding five years' (Ibid). The debt service ratio is above 20 per cent now as compared to three per cent during the Second Plan. And 'debt servicing difficulties are accentuated by discontinuities in the inflow of gross external assistance. A sudden drop in the tempo of authorisations for new loans and credits signals a setback in the flow of total external receipts; meanwhile the growing volume of interest and amortisation payments on outstanding debt must be honoured. Such a situation developed during 1965, after hostilities with Pakistan, when there was a partial breakdown in the aid mechanism. The value of authorisations in 1965-66 fell by more than 14.5 per cent, compared to the previous year. The impact of this hiatus was reflected in the immediate tightening of import restrictions and the resulting showdown in industrial production. The inflow of gross aid during April-December 1966 fell by 17 per cent compared to the preceding period of the previous year. After allowing for debt service, net inflow dropped by 24.5 per cent in this period' (Ibid).

It is against this background of drop in aid that the devaluation disaster acquires its full dimensions. Even Morarji Desai, oddly enough speaking in London, has admitted that devaluation has made the Indian economy suffer more than it might have otherwise. It has steeply raised the foreign exchange cost of imports, sharply reduced the foreign exchange earnings of exports, simultaneously the foreign aid receipts have fallen (for projects, i.e. adding to the strength of the economy aid from western sources is not coming in at all). Devaluation was entered upon as all future foreign aid was said to have hinged upon it—aid has not come in from the quarters which practically dictated that decision

Four points used to be underlined in this connection. First, the onset of the crisis was clearly the result of the 'aid pause', accentuated a thousandfold by devaluation. Second, the 'aid pause' was in no sense the result of any lack of demand for aid or for the commodities of different types that could be bought through that aid. Third, the 'pause' and devaluation could have the impact on our economy that they had because of the nature of the path of development followed by the government with its overmuch reliance on external assistance and the industrial structure that followed therefrom. Fourth. it was not 'a pause' in aid in general but aid from the imperialist countries—which are themselves going through a definite slowdown if not downturn—that occasioned the blight. The combination of all these points leads to the conclusion that the vulnerability of our economy is not exclusively or mainly due to the maturing to overripeness of capitalism within the country but to the link with the imperialist division of labour, though in a new and somewhat attenuated form. Talk of a typical capitalist crisis is singularly inapposite in this context.

This conclusion is only underlined by certain structural stuntedness of our economy which demarcates it from the developed capitalist countries and 'their' crises. Whether one inclines to the falling profit rate or the underconsumptionist (along the lines of the amplication by Sweezy and Baran) scheme of interpretation of Marx's views on crises, the central problem remains that of 'overaccumulation' of savings relative to the profit expectations based on the market's absorption capacity (or vice versa). The situation in India and the onset of 'its' capitalist crisis is of quite another order. It is not a surfeit of savings but its scarcity which plagues our economy and the decline in internal savings, combined with a drop in foreign aid, proved too much for it to bear.

Taking the economy as a whole the ratio of savings to national income has risen from 5.5 per cent in 1950-51 to about 10.5 per cent in 1965-66 while the ratio of investments has risen from 5.5 per cent to 14 per cent in the same period.

Generally speaking, not only should the savings rate be higher than the investment rate but the proportion of savings should be roughly about 25 per cent of the national income if there is to be an independent capitalist cycle.

Moreover, a recent Reserve Bank of India analysis reveals that the average annual increase has come down from 10.7 per cent in the period 1956-57 to 1960-61 to 4.2 per cent in the period 1961-62 to 1965-66. At the same time, available data supplied by the National Council of Applied Economic Research show that there has been a continuous decline of savings in India during the Third Plan. Even more significant are the findings of the Research Bureau of The Economic Times, (20 June 1967). These reveal that government expenditure's share of the Gross National Product rose from eight per cent in 1950-51 to 16 per cent in 1960-61 and again to 24 per cent in 1965-66 but declined in the subsequent year. 'Speaking tentatively it appears as if the sharp and steady rise in the percentage share of government expenditure of the GNP which dominated the three plan periods has come to a stop... (this) would mark a very important structural shift in the dynamics of the Indian economy.' And of government expenditure itself the share of plan outlay, which had steadily risen during the three plans to a peak of 15 per cent of GNP in 1965-66, has begun to decline. It came down to 13 per cent of GNP in 1966-67 and is still lower in the current year. The 15 per cent record two years ago 'may well mark a watershed; that peak is unlikely to be reached at least in the near future.'

Incidentally, it is interesting to note that The Economic Times Research Bureau is exasperated enough by the waste and inefficiency revealed by these figures to come to the following conclusion: 'It is the people at the top who set the pattern for waste and inefficiency. But, while it is easy to attack them verbally, it is wellnigh impossible to dislodge this power elite as a whole without a fundamental transformation of the existing economic and political structure of the society.'

Thus, one could see the present crisis, looming up as the

shortage of savings, coupled with misdirection of investment, created terrible vulnerabilities. Not outlets for surplus but the lack of mobilisation of surplus and setting in motion the mechanism for continuous enlargement of surplus, are at the back of the downturn amidst a dreadfully tardy rate of growth. And government control of this surplus appears to have reached a dead-end—the market overcomes partial programming.

This stunted and distorted nature of the growth of savings and growth of investment in India is the direct result of the heavy specific weight of precapitalist production relations in the totality of Indian economy. It should be remembered that in 1964-65 (at current prices) the contribution of factory establishments to the total national income was only 10.3 per cent, with small enterprises contributing another 6.6 per cent and mining 1.1 per cent. Agriculture proper contributed 50 per cent and commerce about eight per cent. Another estimate of the structure of incomes in India shows that wages and salaries accounted for 29 per cent, profits 24 per cent and self-employed 47 per cent (in the profits sector it is not clear what the share of capitalist enterprises proper is, nor the share of semifeudal wages and salaries sector).

The crucial factor becomes, therefore, the social state of agriculture, which accounts for 75 per cent of our commodity production. But before making some analytical exercise about this, one point can safely be made. Those who talk in a sprightly fashion about a 'typical capitalist crisis' might care to ponder over one insurmountable fact. The creeping stagnation in agricultural production over the past five years, as well as the completely disastrous downturn of the past two years, was certainly not caused by lack of demand or even by lowering profit rates. A recent Reserve Bank of India study (RBI Bulletin, June 1967) has established that 97 per cent of the decline in the general price index in the First Plan was on account of agricultural and agricultural-based commodities, while these commodities accounted for 91 per cent and 87 per cent of the price rise during the succeeding two plans. The same study has

noted what it called the 'ratchet effect' on prices, i.e. the movement in one direction alone (upwards in our case). From about the beginning of the Second Plan prices once having risen do not move down to the extent normally expected. It has further noted that the ratio of the price index of agricultural commodities to other commodities (1952-53=100) has moved from 90.1 in 1955-56 to 115.9 in 1965-66 but this movement of relative prices has not had the expected impact on the movement of production.

Drought explains nothing. The effect that adverse seasonal factors have upon production are explained by the nature of the productive system. The dependence on weather to the extent that we have it in our country is clearly due to the failure to develop the implements and techniques of agricultural production and these, in their turn, are held up because of the outmoded and parasitic production relations. It is this and not Dr. S. R. Sen's 'movement to marginal land' thesis that can explain the tremendous amplitude of the fluctuations of agricultural production in the past two years. And the supposedly 'steep' climb to about 95 million tonnes of foodgrains in 1967-68 will also be climate-produced, in the main. There has been a measure of structural change in the Indian village—the curbing of feudalism and the sprouting of transitional precapitalist forms of production—which is able to support a certain rate of increase but is quite unable to withstand any specially savage blow from nature. As Sweezy had pointed out petty-commodity production experiences its crises through the operation of external causes.

What we have had in Indian agriculture during the two postindependence decades is the fairly rapid spread of commodity production—food itself is becoming the most important commercial crop—but the hold-up of its transformation into capitalism on anything like the corresponding scale. Semifeudal, precapitalist petty commodity production and capitalist relations establish an uneasy equilibrium in the Indian village today. And the sheer vastness of this conglomerate weighs down upon

the economy as a whole, shaping the contours of its movements.

As far as the income generated from agriculture is concerned, the overwhelming bulk will, surely, come from the petty commodity sector. Some idea of this reality can be gauged from the fact that in the year ended June 1962, of the Rs. 1,034 crores borrowed by cultivator households, 47 per cent was reported to be needed for household purposes and 20 per cent for capital expenditure—agriculturalist moneylenders provided 33½ per cent of the funds and professional moneylenders, traders and merchants another 23 per cent. Another indication is provided by the fact that, of the total aggregate value of assets of all rural households as much as 84 per cent was in the form of land and house property.

The stratification in the Indian village (following the All-India Rural Debt and Investment Survey, published in the Reserve Bank of India Bulletin, September 1965) can be presented as a three-tier one. The first group comprises those cultivators whose assets range from less than Rs. 500 to less than Rs. 2,500: they form 41 per cent of the total number of households and own 18 per cent of the total assets. The second group consists of these whose assets range from Rs. 2,500 to less than Rs. 10,000: they form 42 per cent of the total number of households and own 39 per cent of the total assets. The top stratum is made up of those who form 17 per cent of the households and own 43 per cent of the total assets. It is this last group that accounts for 66 per cent of the net capital formation in the countryside, with the second group accounting for 26 per cent and the first group for seven per cent (lbid., June 1965).

This 'model' of the stratification in the Indian village, while revealing the polarities, also shows the existence of a vast 'middle' both in terms of households as well as assets (the two quantities show a remarkable approximation). If the first group clearly can produce nothing but less than subsistence and the last group can throw up surplus (not in the shape of commodity production in which all three groups may well be participating) in the form and magnitude capable of extended reproduction.

the middle group is a transition petty commodity and simple reproduction type. The top stratum is, however, by no means to be confused with the capitalist mode of production in agriculture. Speculation, hoarding, usury and tenancy—precapitalist modes of exploitation—are their favourite money makers, combined now with wasteful, conspicuous consumption (including election campaigns). This is not to deny that fertilisers, improved seeds, better implements, pumps, power tillers and even tractors, are not being absorbed but the existence of enormous structural resistance to the production upswing cannot be overlooked, either.

It is the combination of industrial oligopolies, precapitalist structural predominance in agriculture which is itself preponderant in the total national economy and the continuing vulnerability to imperialist intrusion, that forms the context of the present crisis. Within this framework we have the operation of the capitalist laws of the anarchy of production and of relative overproduction, especially of the products of Marx's Department I.

One sees, thus, a 'mixed' type of crisis. The downturn is not of the type that India witnessed during the colonial days. Nor yet is it a cyclical downturn. After all, the capitalist cycle has its phases (even if these always manifest themselves specifically in each historical situation, especially in the present period). Where was the boom and where will it be when the slow climb is resumed again? It is paying too much of a tribute to Indian capitalism to picture it in terms of the accomplishment and the agony which Marx pictured in Volume I of Das Kapital. At the same time not to see the fact of the break with colonial stagnation and the break being made along the lines of pushing the capitalist mode of production and this throwing up its contradictions which brake the break, is to miss the specifics of the present historical period in India. Without noticing the conglomerate character of the present crisis the working class and its allies will not know the precise weapons to wield.

They will also not know the particular gains that their

enemies wish to secure from the present crisis. Using the instrument of inflation these elements hope to speed up the primitive accumulation of collaborationist capitalism, hope to achieve a welding of the forces of urban and rural reaction and establish a reasonably durable conjuncture with the specific neocolonialist aims of the US imperialists at this present phase.

What one is witnessing is a crisis of the capitalist path of development, not the typical crisis of an already mature capitalism with its self-generated contradictions. It is this basic fact that explains what many commentators have called the 'surprise' or 'abnormality' of price rise accompanying downturn, of inflation going together with recession. Not plenty producing want but want leading to want—such is the 'peculiar melancholy' of the 'modern Hindoo'.

One has to note the fact that while there has been a definite downturn in the economy in 1965-66, there was a small recovery in 1966-67 though not sufficient to accomplish even a return to the level attained in 1964-65. It is in this sense that one can talk of a downturn over two years, though there has been a mild upswing within the downturn. (The relevant figures literally lifted from official sources have been given in the present author's article in the Independence Day, 1967, number of Mainstream.) There is an air of official buoyancy as the rain clouds gather and rain joins the sun again in India. There is talk of something close to a 15 per cent rise in the national income because of a 24 per cent increase in agricultural production. This, indeed, may happen and then will those who talk of 'typical' crisis come out with articles about a 'special' boom? What both the official Candides and the 'revolutionary' Cassandras overlook is that certain modifications of structure in a reactionary direction may be pushed through in the present crisis which would be difficult to reverse. State capitalism and such proximate planning as we have had till now are the immediate victims. These would be followed to the demolition site by the partially formed links with the international socialist division of labour. The so-called 'boom' will not relieve the pressure for these changes.

These pressures can neither be reversed nor even resisted without going forward to demand and win counterstructural changes of a noncapitalist character or presocialist nature. There can be no return to the previous conglomerate. The crisis of the capitalist path throws up the two polarities of noncapitalism and collaborationist capitalism. The choice is clear since only the noncapitalist path can make the 'mix' of surplus mobilisation and development investment, of economic independence and democratic transformation, of rapid growth and social justice. Collaborationist capitalism is a possibility, a menacing possibility but no choice. It can be imposed, it cannot be chosen. The knell of collaborationist capitalism can be sounded on this centenary year. Its gravediggers will be not only the workers but all the democratic classes of the nation. Its expropriation can be India's tribute to the greatest book that all of human evolution has produced.

APPENDIX

FACTS AND DATES REGARDING DAS KAPITAL

A. W. Urojewa

HUNDRED YEARS HAVE ELAPSED since the publication of that immortal work of Karl Marx, the first volume of Das Kapital. Great transformations have taken place in the world in the century that has gone by.

In the days when Marx was working on Das Kapital there was no radio, no television, no air-travel and no motor transport; man had not penetrated into the mysteries of atomic energy; and he was only dreaming of the conquest of space. In the epoch in which Marx worked on his economic work, the earth was under the unlimited domination of capital.

It was only 50 years ago that Marx's prognostications began to be realised. In Russia the Great October Socialist Revolution was victorious, whose 50th Anniversary was observed in 1967. Another very significant event of this century was the dropping out of a number of states in Europe, Asia and America from the system of capitalism and the building up of a world socialist system. The colonial system of imperialism is disintegrating before our eyes and the oppressed people are carrying forward their liberation struggle.

At present, on the hundredth anniversary of Das Kapital the countries of socialism occupy 26 per cent of the entire territory of the earth and embrace 35 per cent of the entire population of the world.

Das Kapital opened a new epoch in the development of revolutionary thought and lifted the emancipation struggle of the entire progressive mankind to a new stage. Its publication had a world historic significance. A truly scientific political economy was created by that work. Marx critically worked through the theoretical thought of his predecessors, tested it on the experience of the contemporary working-class movement, generalised an enormous mass of factual material on the development of capitalist production and drew daring conclusions from the same. He created his grandiose edifice on foundations which were entirely new. In this he unfolded the basis of capitalist exploitation and gave an economic justification for the doctrine of class struggle and of the dictatorship of the proletariat. Marx, who armed the working class with the consciousness of its historic mission as the gravedigger of capitalism, blazed its path to victory by unfolding the laws of motion of the capitalist society.

The publication of Das Kapital had a great significance for the victory of the ideas of communism, over the theories of petty-bourgeois socialism, over Lassalleanism in Europe, over Proudhonism and anarchism in the Latin countries and over reformism in Engiand and the USA. V. I. Lenin utilised the works of Marx and Engels and above all Das Kapital for dealing a blow

to the movement of the populists (Norodniki), of the 'legal Marxists' and for establishing the Marxist point of view on the perspective of the revolution in Russia.

After the appearance of the first volume in Hamburg on 14 September 1867 (in an edition of 1,000 copies), the question arose of its wider dissemination. Marx and Engels themselves were continuously engaged in popularising the economic theory through their writings in press, through their speeches and through their followers. The propagation of Das Kapital assumed various forms in different countries in accordance to the level of their socialist and working-class movements.

In its homeland, in Germany, the bourgeois economists sought to kill the book by silently ignoring it. Marx and Engels, their friends and comrades-in-arms—Wilhelm Liebknecht, August Bebel, Friedrich Lessner, Joseph Dietzgen and others—countered this conspiracy of silence by conducting propaganda for the book by all available means, by publishing advertisements, announcements of the book, extracts from the preface and the text of the book and reviews (some of the last were written by Engels for newspapers of different trends). A dozen extracts from some of these reviews were circulated by Marx's friend Ludwig Kugelmann.

Even before the book was out, a functionary of the international workers' movement Johann Phillip Becker organised a subscription through Vorboten (Herald), an organ of the First International in Switzerland, founded by him. Another effective means was oral propaganda and that too not among workers alone. Wilhelm Liebknecht carried such propaganda in the north German Parliament and before the Leipzig court in the course of the famous Cologne Communist Trial.

The publisher Otto Meissner issued in 3,000 copies a prospectus of the second German edition and later issued a supplement to the same in 500 copies.

The manner in which the workers responded to its publication enabled Marx to express his satisfaction in the following words: 'The appreciation with which Das Kapital was received among broad circles of workers is the best wages for my labour.'

In the period of the stormy development of social democracy, i.e. in the years 1867 to 1890, the demand for the book rose and four editions of the same were published. The book in the original German text was also circulated in other countries like the USA, Austria, Switzerland and Russia. So far as Russia is concerned, the publisher Meissner confirms that the first edition was much in demand by readers in Russia.

In the life time of the author, Das Kapital was translated into two languages—Russian and French. The news that a Russian edition is being prepared was greeted by Marx and his friends with great joy. That Russia should be the first to offer you laurels is really excellent, wrote Ludwig Kugelmann in a letter to Marx.

The idea of translating Das Kapital arose in a circle of Russian revolutionary youth (G. Lopatin, N. Danielson, N. Lyubavina), as soon as they

acquainted themselves with the text. Lopatin travelled on his own to London to be in a position to regularly consult Marx. But he was unable to complete the translation as he had to leave for Siberia on a mission to free the great Russian revolutionary democrat N. Chernyshevsky from prison. Lopatin had to pay for this attempt by being imprisoned himself. The translation was completed by N. Danielson who later also translated the second and third volumes. The translation of the first chapter and the appendix was done by N. Lyubavina. The Russian translation appeared in 1872 in an edition of 3,000 copies and was widely circulated.

The story of the authorised French translation is interesting. This was prepared in the most difficult period of the French working-class movement—i.e. after the fall of the Paris Commune. Marx devoted considerable effort to the editing of the translation and in a certain sense created almost a new authoritative version of the book. 10,000 copies of this edition appeared in serial instalments over three years from 1872 to 1875. During the upsurge of the French working-class movement in the year 1885, the first volume was secretly reprinted in not less than 3,000 copies. Both these editions played a significant role in the propagation of Marxism in France. According to an agreement with the publishers Marx used to receive 100 copies of every instalment of the French as it came out and of the second German edition; these he used to despatch to different addresses—which was in those days an important contribution to the propagation of the book.

After the death of Marx, Engels took over the responsibility to prepare and publish the second and third volumes which Marx had left behind in draft form. With the help of Engels two more editions of the first volume appeared (1883 and 1890). The English translation of the first volume was edited by Engels himself. An abridged edition of the first volume, prepared by Karl Kautsky and authorised by Engels became very popular and went into 25 editions.

An idea of the circulation of Das Kapital in editions published during the life time of Marx and Engels will be obtained from the following table:

	Num	ber of Edi	itions	Year of
Language	Vol. I	Vol. II	Vol. III	Publication
German	4	2	1	1867, 1872, 1883, 1890,
				1885, 1893, 1894
Russian	. 1	1	1*	1872, 1885, 1896
French	2			1872-75, 1885
Polish	1			1884-1890
Danish	1	1		1885, 1887
Italian	1			1886
Spanish	1			1886 (text incomplete)
English	5			Jan. 1887, Apr. 1887,
8	-			1889, 1890, 1891
Dutch	1			1894 (only one instalment
				of 34 pp)

Volume III of the Russian edition appeared after the death of Engels.

Thus, Das Kapital appeared in this period in nine languages in 22 editions of which 17 were editions of first volume, four of the second and one of the third. These facts illustrate the thesis put forward by Lenin, that 'Marxism had already won an indisputable victory over all other ideologies' on the threshold of the nineties of the last century, 'the victory was in the main already complete.'

Between 1903 and 1922 (end) the first volume was further published from Hamburg. Otto Meissner brought out 10 reprints of the original text. In the years of the first world war and up to 1932 nine more reprints of Das Kapital appeared.

In the difficult years of German history, in the period of fascism, Marxist literature was burnt on refuse heaps. People were imprisoned and tortured for reading or even possessing books like Das Kapital. The antifascists treasure the memories of how they studied it in those days and how they succeeded in preserving their books and saving them from destruction.

After the creation of an antifascist democratic order in East Germany Marxist literature was again published. In 1947 a new edition was published in the GDR. It is interesting to note that a German edition was also circulated in Japan (Tokyo 1947-48).

The publication of the classics of Marxism-Leninism received a great impetus in the GDR. In the last 20 years all the three volumes have been published in the GDR in 14 to 10 editions in total number of copies from 3 to 2.4 lakhs. The fourth volume—The Theories of Surplus Value has been published in three parts in three to one editions in total number of copies from 25,000 to 8,000.

At present a 40-volume edition of the complete works of Marx and Engels is being issued in 35,000 to 25,000 copies in the GDR.

Das Kapital found its way into other countries as well. In some countries, abridgements and extracts were published. For instance, a Bulgarian translation of a part appeared in 1905 and the full text was published in 1910. A complete translation of this work of Marx appeared in Prague between 1913 and 1915. Later eight editions were published in Czechoslovakia, four editions appeared in Polish and Rumanian languages and six in the Hungarian language.

The following table gives an idea of the world-wide propagation of the book, giving the year when the first edition appeared in each of the languages mentioned:

Language	Year of the Publication of the First Edition
D.1	
Bulgarian	1910
Esthonian	1910-14
Finnish	1913
Czech	1913-15
Hebrew (Yiddish)	1917
Spanish (Argentina)	1918

Language	Year of the Publication of the First Edition
Japanese	1920
Lettish	1920
Norwegian	1920-21
Hungarian	1921
Ukrainian	1925
Greek	1927
Chinese	1930-33
Serbian	1933-34
Arabic	1939
Marathi	1943 °
Rumanian	1947
Bylorussian	1952
Macedonian	1953
Armenian	1954
Uzbek	1955
Slovak	1955
Korean	1955-56
Azerbaijan	1956
Lithuanian	1957
Vietnamese	1961-62
Spanish (Cuba)	1962
Turkish	1962
Portuguese (abridged)	1962
Kazakh	1963
Hindi	1965
Malayalam	1968

In the Soviet Union in the 50 years of Soviet power till the beginning of 1967 all the three volumes have appeared in 167 editions in total number of copies reaching up to six million in 18 languages (i.e. in languages of the USSR as well as in foreign languages).

In the past century the first volume has appeared in 43 languages in 70 cities of the world in more than 220 editions. This great work, which is the theoretical basis of the most important documents of the international communist movement, along with other works of the founders of Marxism-Leninism continues to attract the lively interest of the millions of peoples in all parts of the world.

(Translated from the German by Dr. G. Adhikari)

This is an extract edition prepared by P. V. Gadgil of Bombay in 1943. Original gives the wrong date of 1953 (Translator).

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