A CRITICAL ANALYSIS OF
MARX'S THEORY OF
CRISIS

PHILLIP O'HARA

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ABSTRACT

The object of this study is to critically analyse Marx's theory of crisis. By taking a bibliographical approach, it tests the consistency and non-contradiction of the totality of Marx's published works of political economy dealing with crises. More particularly, the relation of the periodic and the terminal forms of crises are examined with special reference to their theoretical unity in Marx's writings.

Three major conclusions were made. First, central to an understanding of Marx's theory of crises is dialectical methodology, ontology and epistemology. The methodology is best appreciated within the framework of the separation of methods of inquiry and discourse. The ontology relates to the materialistic conception of history. And the epistemology shows that crises can best be investigated both as part of a totality (the mode) and as a component part of the development of discourse from the abstract to the concrete levels of analysis.

The second conclusion was that it is useful to differentiate between crises studied at the abstract, the concrete and the real levels. Apparently contradictory discourse was often seen to be consistent when viewed in this light; Marx's own theoretical development is more easily explained using this method.

Lastly, Marx devised a theory of periodic and terminal crises, both of which were related to a structure, the capitalist mode of production (although terminal crises were common to all finite modes). And although he examined the trade cycle in detail, he failed to show the long run relation between both forms of crises.
This research is the result of my own labours
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I deem it possible, that before I have reached the end, should they receive no check, they would have grown so numerous, that 'twould scarce tax their powers to sink me; and that your forces, great though they be, would not suffice to withstand them.

Boccaccio
CHAPTER I

THE STATEMENT OF THE PROBLEM

This study will centre on Marx's theory of crises. It will analyse Marx's writings relating to business cycles and conditions whereby capitalism is in danger of not fulfilling the conditions necessary for its survival. A study of this kind is necessary in view of the numerous and diverse interpretations of Marx's crisis theory. For instance, one group of authors suggest that the crux of Marx's theory is that of disequilibrium between the major industries of the economy. Other authors have sought to emphasise the contradiction between use-value and exchange-value in the determination of crises. Some have concentrated on the tendency for the rate of profit to fall, in the short or long run (or both). Whilst a recent study illustrated the importance of the dialectic in explaining the functional relation between the onset of overproduction and the further propagation of capitalism.

None of these authors have sought to analyse crises on the basis of a detailed examination of the whole corpus of Marx's writings on that subject. Hence this study. It is anticipated that analysis of the whole will provide a better understanding of Marx's theory of crises than an investigation of isolated or particular works. The ensemble provides a framework for coming to terms with both theoretical consistency and epistemological development on the question of crises. Consistency is here defined as internal continuity (the degree of abruptness in theoretical evolution) and non-contradiction of the theoretical apparatus. It will be a critical analysis in the sense that the theoretical whole will be judged from the view of its
theoretical unity. Although no attempt will be made to relate Marx's published works to empirical questions (except in passing), the study is thought to be important in understanding Marx's view of crises from the methodological, substantive and logical perspectives. An investigation such as this presupposes a bibliographical approach. This could take the form of either a topical or a chronological analysis. But the latter method will be used since it is more conducive to an examination of the development of theory, and the evolution from one structure to another. It is this factor, theoretical evolution in its totality, which provides the major break with most other studies on Marx's theory of crisis. As Oakley's excellent inquiry into the formation of Marx's thought showed:

To study Marx's thought it is not appropriate to treat it as an a-chronological whole out of which selected pieces may be used to build up an interpretation. Such study should be based on an analysis of the evolution of Marx's ideas and an awareness of the incomplete nature of his work.

This factor of evolution cannot be overemphasised, and is related to the three major hypotheses to be tested in this present study. The first hypothesis relates to the philosophical foundations of Marx's political economy: the methodological and ontological position which has its basis in dialectical materialism. It is suggested that this philosophical system provides a centrepont for an understanding of crises. There are three interrelated sub-areas of concern under this general heading of philosophical basis: the material world outlook; the dynamic application of the tools of contradiction, unity and disunity; and the level of analysis of contradiction.

The materialist view of history enabled Marx to realise the fundamen-
tal activity for economic progress: the role of labour in the production process. Not abstract mental labour, but the most basic form of simple labour, the foundation of all modes of production. The recognition of the most general category of labour and production enabled Marx to construct a theory of the capitalist mode - that which is historically peculiar. An understanding of the universal (labour) provided Marx with a theoretical framework for proceeding to the particular nature of the capitalist process of production, distribution and exchange.

The relationship of these philosophic issues to the development of discourse is especially noted in the Grundrisse. In that work Marx suggested that the method of presentation should accord with the following schema, in order of analysis: (1) capital; (2) landed property; (3) wage labour; (4) the State; (5) international trade; and (6) world market and crises. It is the opinion of the present writer that, while over a dozen plans were constructed by Marx, the above accords with what Marx thought was the best method of moving from the abstract to the concrete by way of discourse. Throughout this study, the schema (1) - (6) will be called the Anticipated Theoretic Whole (Theoretic Whole), since the Grundrisse suggested that it would be the form of presentation of the major economic work. This study will use the Theoretic Whole as a comparative tool by which to understand Marx's reference to crises. The implication of the schema is that crises can best be understood within the context of the rigorous development of models for each section of the Theoretic Whole - culminating in an analysis of the most concrete form, at the level of the world market. This is especially important for recognising the incomplete nature of Marx's work on political economy. Also of
concern is the level of investigation by which Marx analysed crises. In other words, throughout diverse sections of Marx's works he refers to crises, both before and after the formulation of the Theoretic Whole (1857-58). During the early period (1844-50) his reference to crises was within the framework of a generally discursive investigation of political economy, or as a small part of a critique of a (then) contemporary writer. Any reference made to crises after 1856 was made within different levels of the Anticipated Theoretic Whole: i.e., some reference to crises was made while studying value and money and production and circulation and competition and credit, etc. Due to this practice, diverging views by Marx on the question of crises may be only apparent; they may relate more to the level of analysis than of substantive contradiction or changes in ideas.

It is on this latter point that the first hypothesis flows intimately into the second. The second hypothesis states that the most fruitful method of understanding Marx's theory of crises is to utilise a component of the dialectical theory. That component is theoretical development which attempts to integrate the real, the concrete and the abstract. The real is defined as the actual surface phenomena observable within any social formation. The concrete is the application of the abstract to the predicated dynamics of a mode of production. Whilst the abstract can be looked upon at two levels: the general and the peculiar. The general represent those characteristics common to all known modes of production; and the peculiar abstract are the theoretical ingredients of the major contradictions of the mode in question.

The point to emphasise is that crises can be investigated at all three
levels of inquiry. And for Marx, as especially suggested in the *Grundrisse*, the proper method of presentation proceeds from the abstract to the concrete. Within this framework, of course, the real is important, but only insofar as it enables a structural analysis into the particular society in question. An obsession with the real as the central field of inquiry, according to Marx, would conform to the classic form of commodity fetishism (if capitalism were to be investigated). Marx himself did study crises at all three levels of analysis - what may be referred to as "abstract", "concrete" and "real" crises. Therefore, this system of differentiation is essential in order to understand his discussion of crises in the various works. It is only by realising the use made by Marx of the two separate components of methodology, the methods of inquiry and presentation, that the precise relation between the three levels can be appreciated. And, if we relate this to the Anticipated Theoretic Whole, the most fruitful analysis of crises would correspond to the full theoretical development of contradictions from the most abstract to the crises experienced at the level of the world market. Of course, this presupposes a set of fully fledged models of the less concrete fields of analysis. The second hypothesis will be tested with this in mind.

The third hypothesis tests the relationship between periodic and secular crises throughout Marx's work. It is suggested that there is a definite connection between Marx's theories of business cycles and capitalist breakdown. This is thought to be true with respect to an analysis given by Marx to structure, tendencies and contradiction. In other words, they are related to the development of the capitalist mode of production, which presupposes a theory of long run growth.
"Proofs of decline" are possible at two levels. First, the contradictions of the mode can apply or relate both to the determination of the recurring unity of opposites, and the eventual negation of the original theses. Or a theory of short run cycles can be developed and extended into a long run model of increasing intensity of crises, based on certain laws of tendency. The first form of "proof" is less desirable from a political economic viewpoint, but certainly no less relevant in theory. Indeed, the first may be a necessary condition for the development of the second, due to its more abstract nature. The extent to which Marx developed a combination of these two possibilities will be analysed throughout this present work. In doing so, some reference will be made to a component of the dialectical methodology, the differentiation of method of inquiry and the development of discourse. This is especially true of Marx's later works, where the method is consciously hidden from view.

The above hypotheses represent the major areas of concern. This study, however, also attempts to provide some insight into the more specific controversies on crisis theory. Obviously, any study which seeks to understand the relation of short to long run crises must examine in detail Marx's reference to changes over the range of the full cycle. More particularly, the forces promoting the upper and lower turning points: the changes in investment, limitations from within both the spheres of production and circulation, and interrelations between departments one (producing means of production), two (wage goods) and three (luxury goods). The factor of causation is central to an analysis of these changes.

Related areas of importance are the two most peculiar features of
capitalist society: the predominant commodity economy, and the incessant drive to produce surplus value (in the labour-capitalist relation). There are, according to Marx, contradictions both within and between these peculiar features: between value and price, use-value and exchange-value, wage labour and capital, and production and consumption. It is necessary to examine closely the precise determination of these contradictions in the development of crisis theory. Here the earlier reference to the level of analysis at which crises are studied becomes important.

The investigation will centre on Marx's political economic work from the writing of the Excerpts from James Mill's Elements of Political Economy to the unfinished work of Capital. The first section will analyse the "early works" within the period 1844-1851. This included both theoretical work and that which analysed mere surface phenomena. It is unfortunate that a major piece of work for an investigation of crises, written in 1854-1855, is still as yet unpublished. The second section will study the "formative period" in which both the Grundrisse and the Contribution to a Critique of Political Economy were written. Next, the relevant sections of Theories of Surplus Value will be examined, which gives a detailed account of changes over the range of the business cycle. The last section will consider the material in the three volumes of Capital: production, circulation and the unity of the two. A conclusion will follow.
CHAPTER TWO
THE EARLIEST WORKS

The Concept of Essence

Any attempt to divorce the development of Marx's theory of crisis from philosophic notions would be counter to a full understanding of his integrative theory. Indeed, the Excerpts and the Paris Manuscripts provided insights into crises precisely because of an attempt to transcend beyond the limited frame of reference of Hegel and the classical economists.¹

The Excerpts centred on the epistemological and ontological underdevelopment of economics, which is best reflected by the fact that the economists assume what they are supposed to analyse - wage labour and capital. Therefore, Marx thought that they justified a system whereby its subjects were alienated from their Essence.² The Essence of 'man' is tantamount to the community of persons, which 'is no abstract; universal power standing over against the solitary individual, but is the essence of every individual, his own activity, his own life, his own spirit, his own wealth.'³

Capitalist society, according to Marx, alienates its subjects due to the operation of the class relations between capital and wage-labour. This relationship further reinforces Being-for-Self, as against the indeterminate mode, due to the nature of the predominant exchange economy, the credit system and money. Under these conditions wage labour is estranged from its object and its subject, the satisfaction of personal wants and the full development of individual capacities. The workers help to replicate their alienated state; under capitalism reproduction becomes both commodity production and the reproduction
of the class structure between capitalist and worker. This is true under conditions where humans are 'egoistic, unsocial and estranged from [their] own [e]ssence. The concept of Essence is related to the notion of crises. Essence is contrary to Being, since the latter is historically peculiar, for instance, to capitalism. But behind appearance, the conditions of the Being (in this case, the growth of commodities, money and credit) is something more fundamental; absolute Being-in-Self, essence indeterminate. That quality, which is indifferent to the limits of any mode of production, is labour. It is this factor which forms the basis of every mode, that which transgresses the Finite and is Pure Being.

The very conditions of capitalist reproduction attempt to go beyond the limits imposed by the law of value. Exchange value is the appearance of capitalist commodity production, but a necessary feature of a commodity is use-value. In other words, for a commodity to be sold it must have the property of use, backed up with effective demand. Since 'it is use which determines the value of a thing', and since 'production of too many useful things produces too many useless things', labour must be allocated throughout the economy in a manner consistent with the conditions of supply and demand.

But the fact that supply and demand become so important under the predominant commodity economy, according to Marx, is illustrative of the universal workings (within that society) of the forces of alienation. In this sense, the source of the contradiction between use-value and exchange-value, and supply and demand, is peculiar to the capitalist commodity economy. Hence the foundation for an analysis of crises,
the negation of the most fundamental economic maxim, Say's Law.\(^6\)

Indeed, supply and demand only ever coincide momentarily thanks to a previous fluctuation in supply and demand, to the disparity between the cost of production and the exchange value. And in like fashion, the momentarily coincidence is succeeded by the same fluctuations and the same disparity. This is the real movement, then, and the abovementioned law is no more than an abstract, contingent and one-sided movement in it.

Although Marx had not yet developed in detail his conception of value, he realised that disequilibrium between the major markets of the economy creates a price which deviates from 'natural price'. Under conditions where supply is greater than demand, the price will be greater than the price (value) which reflects socially necessary labour; and vice versa.\(^7\)

In the "fierce struggle between capitalist and worker," Marx thought that deviations of prices from values would generally benefit the capitalist class, those who had a monopoly of ownership of private property.\(^8\) In the gravitation of the market price towards the 'natural price', a result of the mobility of capital to move from low to high profit areas of production, the working class suffers from labour immobility and technical limitations of their former trade.

Under conditions of recession, the demand for labour fails to keep pace with the supply, resulting in wages below the 'natural price' of labour, and unemployment. And under conditions of prosperity, the demand for workers is in excess of supply, resulting in higher wages. But, according to Marx, this results in overwork and a shorter life-span, the increased alienation of the product of labour from its essence, and the development of the specialisation of labour in the work process. Thus, capitalist systems of production, distribution
and exchange have structural contradictions which are both the source of development and demise. Development, because conditions within the system enable a high development of the productive forces; demise, because a point is eventually reached where this growth is no longer possible.  

Cyclical Movements and Systemic Breakdown

The negation of Say's Law follows from an analysis of the predominant commodity economy; the role of money and credit. Capitalism is not characterised by barter exchange, nor the simple commodity form of exchange, but a highly developed banking and financial structure. In this case, the purchase and payment of commodities need not occur simultaneously. Also, producers do not produce with a view to consumption, per se; they produce for a market. Supply then need not create its own demand under these conditions. This is especially true of the employment of wage labour. The law of population under capitalism produces a tendency for relative overpopulation, and therefore disequilibrium in the labour, commodity and money markets. There is no auctioneer and therefore the periods of disequilibrium take time to work themselves out in conditions of perfect competition. Hence the development of the business cycle.  

Associated with the development of cycles were three long run features of capitalism. First, stock-piled labour rises relative to living labour. Marx reduces the significance of this to the increased alienation of the workers to the product of their labour. Second, due to the interrelation of the accumulation of capital, the growth of the division of labour and the growth in the size of work-force, the relative demand for labour declines over time. And thirdly, a growing
capitalist economy promotes the concentration of capital in fewer hands, which follows from increased bankruptcy from successive periodic crises and the rising level of capital needed to develop capitalist enterprise.

All three tendencies are thought by Marx to heighten the contradictions of capitalist society through the further proletarianisation of the population. This the Paris Manuscripts forsees as the result of successive crises of overproduction. However, specifications as to the precise nature of periodic crises were limited. In one place Marx stated that

An increase in wages presupposes, and brings about, the accumulation of capital, and thus opposes the product of labour to the worker as something increasingly alien to him...Finally, just as the accumulation of capital increases the quantity of industry and therefore the number of workers, so it enables the same quantity of industry to produce a greater quantity of products. This leads to overproduction and ends up either by putting a large number of workers out of work or by reducing their wages to a pittance.

Thus, overproduction occurs due to the contradiction between use-value and exchange value, between price and value, between capitalist and wage labour. The extension of production of wealth is counter to the profit motive of capitalists; hence the subsequent destruction of capital and unemployment and lower wages for workers.

The surplus population would have to die...So in a declining state of society we have the increasing misery of the worker; in an advancing state, complicated misery; and in the terminal state, static misery.

The three 'laws of tendency' for a progressive society are supposed to provide the link between the periodic and the secular crises of capitalism. However, there is a great break between the positing of
this relation and the theoretical proof of decline. While the Excerpts and the Paris Manuscripts provided some important introductory remarks on the determination of crises within capitalist society, the ideas can only be considered as preliminary hypotheses to be tested further. While he examined the process of alienation from within the sphere of production, it cannot be said that that sphere was studied in a level conducive to an examination of trends of capitalist development. This is important, for Marx had not yet formulated the concept of exploitation, or the precise notion of the mode of production, both of which are largely mystified by a study of the surface phenomena of society.¹⁵

A necessary development for an analysis of capitalist dynamics is the construction of a rigorous theory of the mode: the forces and relations of production. This presupposes a methodology consistent with the purpose and an understanding of the class antagonisms of society. It is here that the early works were most fruitful - on methodology and capital and wage labour. In other words, Marx sought to break with the idealism of Hegel and the un-dialectical nature of the classical economists.

Hegel's reality was largely in the mind, rather than the social practice. The abstract was studied for its own sake, neither determined by the material, nor capable of being broken down to the level of the concrete. Marx rejected this idealistic vision, which proposed that history was the transformation of the mind, that the history of alienation was the history of consciousness and self-consciousness, and that an object that is unknown is nothing.¹⁶

At the same time, Hegel rightfully treated the whole as being more than simply the sum of the parts, and the particulars as being intim-
ately related to the universals. The dialectical method itself was developed by Hegel, and Marx used this within the confines of an examination of objective reality. The dialectic was perfectly adaptable to studying the material world. From it Marx learnt that the classical economists emphasised the original unity of supply and demand rather than the movements of disunity. They treated economics ahistorically, as though the bourgeois system was the Absolute form of society. And though they recognised the importance of class divisions, they tended to internalise the interests of the class which had monopoly control over private property. Hence the assumption of unity in the face of antagonism. Under these conditions, it was beyond the scope of the classical economists to study the violent contractions and expansions upon which capitalism did and does depend on for its very development. The early development of theory using the method of dialectical materialism enabled Marx to grasp the nature of the crises more readily. But a necessary development was a more thorough analysis of the capitalist mode, which was as yet not forthcoming.

The Notion of the Mode of Production

Important developments in the theory of capitalist economy and crises occurred under the tide of changing economic and social conditions just before and after the 1848 revolution throughout continental Europe.

In the *Poverty of Philosophy*, for instance, Marx showed that one side of the evaluation of value by labour time was the tendency for the constant depreciation of the necessary labour time (and the increase of surplus labour time). This is due to the increasing productiveness
of labour, through the growth of the productive forces. The other side, the negation of the value of commodities, is the 'excessive raising of prices, overproduction and many other features of industrial anarchy.' Marx suggests that it is the 'unplanned nature of capitalism' which predicates crises, and this element of anarchy is the attempt of the forces of the mode to transcend its essence (value as determined by socially necessary labour time). It is thus the 'indispensable condition of capitalism' to tend towards overproduction; movement towards unity of price and value. In this sense, 'overproduction causes crises only through its influence on the exchange value of products.'

The deviations of supply from demand, of value from price, negated the theoretical validity of Say's Law, as was illustrated above. The law was only relevant to a society based on use-value, not a highly developed commodity economy where purchase and sale could be divorce from each other. Marx below elucidates the historical deviation from the conditions of the law:

This true proportion between supply and demand, which is beginning once more to be the object of so many wishes, ceased long ago to exist. It has passed into the stage of senility. It was possible only at a time when the means of production were limited, when the movement took place within very restricted bounds. With the birth of large-scale industry this true proportion had to come to an end, and production is inevitably compelled to pass in continuous succession through vicissitudes of prosperity, depression, crisis, stagnation, renewed prosperity and so on.'

This statement shows clearly that Marx saw crises as being inextricably related to the operation and development of the capitalist mode of production. In other words, as he showed later in the Poverty of Philosophy, reform at the level of the circulation of money could not
negate the structural contradictions of the mode which predicate crises. Hence the inadequacy of the social reformers who wanted 'to reconstitute society on the basis of what is merely an embellished shadow of it', those who were obsessed with the manifestations of the crisis, the surface phenomena of society. 24

Money is thus a necessary condition for the propagation of capitalism, and it enables many of the inherent contradictions to rise to the surface. But it hides relations and forces which lie far deeper within the fabric of capitalism, ones apparently hidden from the sphere of circulation. Marx went on to say that 25

Money is not a thing, it is a social relation. Why is the money relation a production relation like every other economic relation, such as the division of labour, etc.? If M. Proudhon had properly taken account of this relation, he would not have seen in money an exception, an element detached from a series unknown or needing reconstruction... He would have realised, on the contrary, that this relation is a link, and, as such, closely connected with a whole chain of other economic relations; that this relation corresponds to a definite mode of production...

It was in these two manuscripts, The German Ideology 26 and the Poverty of Philosophy, that Marx first fully conceptualised the major contradiction of the capitalist mode: between the revolutionary nature of the forces of production and the relatively static or inhibiting social relations of production. While capital's historic task is the growth of the productive forces (including worker capacity and skills, the means of production and the means of labour consumed in the production process), 27 the conditions of ownership, class antagonism and distribution counter the full development of production. Hence the periodic crises are necessary for temporary resolution of the major contradiction.

By the time of the Manifesto Marx had clearly come to understand the
importance of the sphere of production in an analysis of capitalist dynamics. Written only a few months after the Poverty, the Manifesto provided some important theoretical developments on the "nature" of capitalism: the revolutionary transformation of the forces of production, the tendency for the internationalisation of capital, and the negative (contradictory) elements within the mode itself.

By way of analogy Marx suggested that all modes of production based on class antagonisms develop conditions which are both essential for their development and simultaneously provide the basis of their negation. In other words, there are contradictory, opposing forces, which provide the source of motion, change and also destruction. The destruction is caused by the casting aside of the fetters to social and economic development in favour of a higher form of society. But the transformation process creates a new set of dialectical opposites, based on new contradictory pairs.

In the case of feudalism, the trade developments, new specialisations and increased division of labour inherent in the growth of mercantile trade were in opposition to the whole structure of the feudal production relations, and the restricted practices of the town guilds (in England). Gradually, the forces from within highlighted the relatively static class structure, and eventually the bursting asunder of the old production relations paved the way for the growth of capitalism. Hence the consolidation of the tendency for the accumulation of capital, the growth of free wage labour and the capitalist class. Under these conditions, 'the social relations of production change...with the development of the material means of production, the forces of production.'
The old productive forces of feudalism, the improved methods of iron-making, the iron plough, the loom, improvements in farming methods, gave way to the more intensive technological developments inherent in the nature of immature capitalism. These initially included the first locomotive (1814), the water turbine (1827), the electric bell (1831), telegraphy (1837), the turret lathe (1845), the Bessemer Converter (1856), and the steam turbine (1884). Hence the compulsion created by the forces working within the new society: 29

The bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and with them the whole relations of society. Conservation of the old modes of production in unaltered form, was, on the contrary, the first condition of existence for all earlier industrial classes. Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois mode from all earlier ones.

However, like all class societies, the bourgeois mode had structural contradictions, as was noticed above. And Marx stated in the Manifesto that these contradictions become manifest in commercial crises, sudden dislocation of trade and economic activity in general. The inbuilt contradictions surfaced from within the sphere of circulation. Hence the limitations on the great productive potential of the capitalist mode of production. But they are only periodic, and are generally overcome by two factors: 30

On the one hand by enforced destruction of a mass of productive forces; on the other by the conquest of new markets, and by the more thorough exploitation of old ones. That is to say, by paving the way for more extensive and more destructive crises, and by diminishing the means whereby crises are prevented.

There are problems with this specification. First, does paving the way for greater crises mean that they become less intense in the short-run
and then more intense as the search for extended markets became exhausted? Second, does the very nature of capitalist expansion lead to both short-term resolution of the contradictions, and long run exacerbation of the crises, independently of the exhaustion of markets, per se? And third, in what sense does the negation of effective means of production make way for greater and more intense crises in the long-run?

These questions were not adequately answered in the Manifesto, for they went beyond the scope of the limited function of the pamphlet. Nevertheless, some tentative conclusions can be reached. For instance, as Marx suggested, the internationalisation of capitalist market relations, and the development of cheaper means of production and transportation, 'compels all countries to adopt the bourgeois mode of production; it compels them to introduce what it calls civilization in their midst, i.e., to become bourgeois themselves. In a word, it creates a world after its own image.'

There is definitely no suggestion here about the possibility for the growth of social formations created out of differing modes, with perhaps one of them being predominant. For this reason, long run exploitation of the periphery by the centre within this framework was ruled out: i.e., international specialization could not be based on handicrafts and agricultural commodities from the periphery, and the highly capitalist industries of the centre (or a similar type of specialization). For Marx, in the long run the geographic limit of capitalism would be reached, and the expansion of demand from this source would be halted, resulting in an even greater dislocation of trade due to the expanding productive structure, greater limits on net investment, and greater
underutilisation of labour and capital.

In this sense, the 'forced destruction of the mass of productive forces', is a necessary condition for capitalist development and also decline. The second force for promoting the periodic unity between contradictory forces, 'a more thorough exploitation of old markets', is evidently the only measure for preventing a rapid economic demise of the mode, given the frame of reference which Marx was working with. Exploitation was, for Marx, a general term in the early writings; not specifically related to the production of surplus value as such. But even so, what he alluded to was the lengthening of the work-day (what he later referred to as absolute surplus value) and the reduction of the necessary portion of the work-day (increased relative surplus value), plus the actual lowering of the real wage. In the meantime, prior to the exhaustion of markets, a combination of both forces were thought by Marx to provide conditions which could promote periodic recovery from crises. Eventually, however, immiserization of the proletariat became the dominant means of survival for capitalism, and this struck at the very heart of the class antagonisms of the mode.

This factor is important for Marx's theory of periodic and terminal crises. Limits on the effective demand of the working class was contrary to the growth of the productive forces, due to the problems of realisation on the market. Crises of overproduction and eventual recession were thus characterised by lack of demand by consumers (and producers), but this was not peculiar to capitalism. Class conflict was an essential component of all contradictory modes; and although the worker-capitalist relation was unique to capitalism, the essential and unique cause of crises was the incessant growth of the productive forces. Therefore,
the development of the productive forces was counter to the social
relations upon which these forces depended. Disunity between these
forces and relations necessitated crises, periods of destruction
of capital and labour, movements towards unity which enabled recurring
disunity.

With the exhaustion of markets came the more thorough exploitation
and immiserization of the working class, according to Marx. Tantamount
to this is the further strain between the social classes, the growth
of a revolutionary consciousness on the part of the proletariat, and
the inevitable decline of capitalism. This revolutionary potential
is thought by Marx to develop more within the working class, per se,
than the lumpenproletariat (the lowest, unpredictable scum of a class,
'a bribed tool of reactionary intrigue').

But since the major factor promoting revolution is unemployment, bad
work conditions, poor wages - in short, economic or structural variab-
les reinforced by ideological moulding - and since they would be felt
differently and in different intensities throughout the world system,
it follows that the decline would not be systematic within the single
time period. Hence, 'the struggle of the proletariat is at first a
national struggle.' It is possible - it shall be studied later what
Marx specifically thought of this - for the commercial crisis to effect
the integrated capitalist system simultaneously, but the possibility
of all countries being economically depressed instantaneously (or even
simultaneously) is slim.

The above shows the intimate relation between Marx's short and long
run theory of crises; the fundamental premise on which the link is
based (and, more particularly, on which the decline is based) is
the revolutionary and destructive effect of capitalism on other pre-capitalist modes of production. Regardless of the fact that this has not passed the test of history, the relation was at a very low stage of theoretical rigour at least on the question of proofs of decline. But this is understandable, if one is to work within the framework of Marx's paradigm. A necessary condition for an understanding of long-run crises is a detailed comprehension of the short-run cycle and tendencies of capitalist growth, and this in turn (for Marx) presupposed a rigorous theory of the capitalist mode and its contradictions. Hence, since the early work had not yet developed a theory of the mode or short run crises at any level of depth, the most interesting question of dynamics was not capable of being analysed at sufficient depth. It is for this reason that Marx was compelled to study further both the surface level of analysis and the detailed structural determinants of capitalism. Indeed, as we shall see in the next section, an understanding of the basic factors of the mode enabled him to study and realise the inadequacies of the form of commodity fetishism associated with the surface phenomena of capitalism.

The Manifestations of Crises

The development of Marx's theory of capitalism and crises was largely dependent on social practice, the material conditions in England, Europe and the colonies. The dialectic method enabled him to demystify the 'minor subterfuges' and surface phenomena, to capture the central dynamics of the world around him. Since the late 1840's was one of the most severe periods in English (and European) history for the working class, immiserization was a crucial process which he grasped and attempted to fit into his theoretical structure. In line with the
dialectical framework, devoid of its idealistic obsession, Marx found that immiserization, crises, expansion of capitalism on the world scale and revolution were all related as members of a totality, distinctions within a unity (or disunity). Therefore, the crises of the late 1840's throughout Europe were seen or analysed as an extension of the ideas developed in the Manifesto, which also recognised the relation.

In the reviews published in the Neue Rheinische Zeitung Revue Marx made some significant developments to his theory of crises. For instance, he pointed out that the appearance of crises hide their real nature and function. The operation of the mode determined the periodic occurrence of overproduction (of exchange values), whilst the overproduction itself caused overspeculation (although it may precede the overproduction). 37

The study itself sought only to enumerate 'the most significant... symptoms of overproduction', due to the nature of the journal it was written for. Nevertheless, the examination of the 'superficial turbulence' was very fruitful for understanding crises in relation to social conflict, the banking system, sectoral crises, the stock-market and the international market. More particularly, it gave insights into the spheres of production and circulation, conditions necessary for a general crisis, and the link between the short and the long run crises.

It is important to note that the Bank Charter Act was passed in England just prior to the 1847-8 crisis which, it was hoped, would provide greater security for the redemption of bank notes. The Bank of England was split into two departments as a result of the Act, one for ordinary
banking functions and the other for note issue. The bank then had more control over the money supply. It became necessary by the terms of the Act to back notes with gold (beyond a lower limit); although the problem of an inelastic currency was surmounted through the extensive use of cheques. Marx strongly emphasized that control over the money supply is no substitute for a less contradictory form of society; overproduction throughout many of the most important industries in the year 1847 created the growth of overspeculation, and any attempt to reduce speculation through monetary controls (in order to increase the fiduciary power of money) at the time of crisis could only result in collapse of the capital market, etc. Of course, this depends on the state of the international economy and the major industries of the economy. But let us follow the course of events from 1843.

Marx noted that 1843-5 was a period of prosperity for industry and commerce: industrial prosperity was characterized by a high level of capital investment (in this period mainly in the railway building industry); and commercial prosperity was related to the successful realisation of commodities on the market. Speculation was concentrated on investment in railways, itself based on the transport of a highly priced commodity (corn). In the year 1845 investment rose to the point where stock prices began to rise, and 'speculative profits [began to] suck all social classes into the whirlpool.' With effective demand rising progressively, the demand for labour also rose, but more especially for the engineers and workers in the printing and furniture manufacturing industries. With demand high, and wages rising, firms were making fraudulent profits, overproducing, and being promoted with little chance of success. The effects of this overproduction (in 1846) and overspeculation were bankruptcies; many loans were given to
customers with little financial backing, net investment was reduced demand in the labour and the commodity markets declined, and prices for commodities declined sharply. Although to the superficial observer the crisis was seen to be caused by overspeculation, to Marx the "real" sphere of the economy itself produced high prices and the subsequent crisis.

The crisis of the railway industry lasted from early in 1846 into mid-1848, being prolonged by successive bankruptcies and overproduction in other industries (especially the iron, printing and furniture industries). Prices of the better established firms were forced down till the lowest ebb was reached during October 1848. But the growth of the general commercial crisis was dependent on the simultaneous development of overproduction within the major industries, plus the money and banking crises proper.

For instance, during 1845-47 there were severe shortages of potatoes and corn, which was the major reason for the below subsistence wages for the workers. While prices of corn were at their peak prior to the lowest ebb of the railway depression, the money market was in a state of collapse, and the credit system was in the process of collapse. This was in August, 1847. But it was not until the Bank of England raised the discount rate that 'the most spectacular bankruptcies ensured on the corn exchange', intensifying the crisis throughout England.

More than a year prior to the 'floor' of the railway crisis, prices were re-established in the corn market; and six months prior to the corn crisis overproduction obtained in the cotton industry, which had begun as early as 1845. Except for these industries mentioned, the general state of economic activity in England during the early
part of 1847 was at medium pace. But by September of that year a
general commercial crisis was in motion throughout most of England.

On this Marx said: 43

This series of bankruptcies, unprecedented in the history
of commerce, was caused by general over-speculation
[itself caused by overproduction] and the resulting
excess import of colonial produce. The prices of this
produce, which had been kept at an artificially high
level for a very long time, dropped somewhat before the
panic in April 1847, but were subject to a general and
steep drop only after this panic, when the whole credit
system collapsed and one house after the other was
forced to sell on a mass scale. This fall was so
considerable, particularly from June and July until
November, that even the oldest and most reputable
conscerns were ruined.

Due to the internatization of the capitalist system, the crisis
spread throughout Europe as it began to subside in England. And
while England actually benefitted from the European revolution,
it was evident that the crises of bankruptcy, capital destruction,
unemployment, lower real wages and monetary collapse came to be an
important 'determining mechanism' for revolutionary class conflict
and thus further economic decline on the continent. As Marx said,
'at any rate, it is certain that the commercial crisis contributed
far more to the revolution of 1848 than the revolution to the
commercial crisis.' 44

What he really means, of course, is that the contradictions of the
mode predicate economic crises and class conflict, both of which
are intimately related. The symptoms of overproduction - real crises -
disguise the overproduction itself - concrete crises; and the latter
presupposes the contradiction between the forces and the relations of
production - abstract crises. In this sense the monetary disturbances
are reflections of the economic cycle, although the manner of reflect-
ion is peculiar to the nature of the financial structure as an institution.

The examination of crises undertaken in the Neue Rheinische Zeitung Revue can only be properly analysed in conjunction with the prefaced remarks given by Marx to the inherent forces of the mode. When this is considered, the analysis of the conditions in England during the late 1840's can be seen to be consistent with the earlier work, and most especially the Manifesto. In both works Marx placed great emphasis on the relationship of the short and the long-run crises. For instance, the Neue Rheinsche seriously suggested that the long-run crisis would very soon after 1850 emanate from the effects of overproduction.

As Marx remarked on the period of prosperity after 1845-8:

This renewed prosperity, which our German bourgeois naively attributes to the restoration of stability and order, is based in reality only upon the renewed prosperity in England and upon the increased demand for industrial products on the American and tropical markets.

... If the new cycle of industrial development which began in 1848 takes the same route as that of 1843-7, the crisis will break out in 1852.

... The bourgeoisie is celebrating this, its greatest festival, at a moment when the collapse of its social order...is imminent, a collapse which will demonstrate more forceful than ever how the forces which it has created have outgrown its control.

By these comments Marx clearly analysed only one side of the possibilities for promoting periodic unity; he showed that a crisis of the near future would promote a class revolution. But already in the Manifesto Marx showed that crises of overproduction can be overcome through a combination of 1) increased exploitation of the working class, and 2) expansion of markets throughout the world capitalist system of market relations. In positing the inevitable revolution Marx seems to
have ignored the second of these factors, even though he himself cites this factor above. (not to mention the growth of monopolies, the state, etc.). In this sense there is internal inconsistency within the possibilities cited in discourse. The reason for this, it would seem, is that his theoretical apparatus is at this stage at a low level of development. This is backed up by the fact that his inability to 'predict' the timing and nature of the next crisis (he said it would break out in 1852) was a reflection of his inadequate knowledge of the sphere of production (the dominant sphere of the economy). Further than this, however, is the fact that Marx's analysis was fragmentary and counter to a systematic understanding of the dynamics of capitalist economies. Nevertheless, as shall be realised below, these initial studies were central as starting points for a more rigorous structural analysis of political economy.
CHAPTER THREE
THE FUNDAMENTAL LIMITS TO CAPITALIST DEVELOPMENT

The Dialectics of Deduction

It was noticed in chapter two that Marx posited the relationship between short and long run crises on both philosophic and political economic grounds. The philosophic argument was at a low stage of development, but essentially concerned the historical analysis of capitalist society, and the inherent tendency for disunity between opposing forces. The political economic argument was largely based on epistemological development in line with the dialectical methodology and ontology, and was similarly not well developed. This is not so much a criticism but the realisation of the need for a basis on which to proceed with theoretical development.

Even from the early works it was obvious that Marx intended to construct a rigorous structural model of capitalism. Indeed, in the early 1840's Marx "sketched out but did not finish" a manuscript on the economic categories of capitalism. The fact that he finished little on that subject during the 1840's and early 1850's is a reflection of the lack of theoretical conceptualization. Most of Marx's studies on political economy in the earlier period of his life was undertaken throughout the 1850's. The fruits of his labour were realised with the writing of the Grundrisse and the Contribution to a Critique of Political Economy. Although only the latter work was published in his lifetime, the Grundrisse is by far the most theoretically rigorous of the two, and will therefore be closely focussed on in this present section.
Essential for the development of Marx's theory was methodological evolution; that needed for a rigorous rather than a discursive analysis of economic categories. In other words, it was necessary to be able to develop the framework in line with variable models, assumptions and conditions. It is certainly true that the Grundrisse (1857-58) and the Contribution (1859) provided the requisite (though possibly not sufficient) discontinuity vis-a-vis the earlier work.

The "Introduction" to the Grundrisse (in the sense of being organically related) is a highly innovative and original manuscript. There Marx stated for the first and only time (in detail) some tentative answers to the question of the relation of the "real" to the "concrete" and the "abstract" level of analysis. An investigation of this methodological stance is essential to an understanding of the relations which he formulated in the Grundrisse.

It is crucial in this present work to study and acknowledge the fundamental problematic or purpose of Marx's political economy. As was shown above, he sought to develop an intensive theory of the capitalist mode of production. More generally, he attempted to provide a paradigm for analysing particular modes of production. He therefore provided a method for investigating structures: 'the idea of wholeness, the idea of transformation and the idea of self-regulation.' Wholeness recognises the relationships between productive forces and relations, the laws of distribution and exchange, and the superstructure of society. Transformation specifies the determining mechanisms between the 'components of the whole'. Whilst self-regulation considers the movements of unity/disunity inherent in the contradictions of the structure.
The "Introduction" to the *Grundrisse* proposed two interrelated tools for analysing the structure of particular modes of production. The first discriminated between the method of inquiry and the presentation of discourse. He thought inquiry should be applied to the detailed workings of differing social formations. Whereas discourse should approximate what was earlier called the Anticipated Theoretic Whole (Theoretic Whole)(including capital in general, landed property, wage labour, the State, international trade plus the world market and crises). A component part of "capital in general" included the simple relations such as labour, division of labour, value and need; those necessary conditions for all modes of production. The further discourse progressed the more concrete the analysis, the more it applied to the peculiar rather than the universal.

The second tool for evaluation specified a theoretical link between the real, concrete and abstract levels of inquiry. The real was important to the method of inquiry for investigating the different modes of production, distinguishing between the universal (general) and the peculiar characteristics. Whilst the method of presentation proceeded from the abstract further and further towards the concrete level of analysis (in line with the full realisation of the Theoretic Whole). Both the abstract general (the universal factors) and the abstract peculiar (the major contradictions devoid of the more detailed predications) were important for the development of discourse. But the abstract general enable the abstract peculiar to merge into a gradual examination of the more concrete without unduly complicating the study at the onset. Hence the tedious process of proceeding from the first to the modern productive structure is dispensed with by way of discourse.
Marx quite rightly thought that this complex methodology was essential for a systematic examination of the transformation and self-regulation of the whole. The very conception of the whole was alien to the classical economists. They failed to specify a theoretical relation between the differing levels of the dynamic structure of social formations. The structure of production was thought by Marx to largely determine the form of class conflict, distribution and the components of the superstructure (ideology, religion, the State, etc.). But within this synthesis is mutual reinforcement, since the dynamics of society is a multi-faceted process.

An investigation of transformation and self-regulation of the whole ('distinctions within a unity', 'members of a totality') revealed to Marx the necessity for periodic limits to capitalist development. In other words, the contradictions or laws of motion of capitalism posited barrier-growth-barrier in continuous fashion. The notion of dialectical change, however, also posited a limit to the historical nature of capitalism, since it was essentially finite. Hence: 'The whole profundity of those modern economists who demonstrate the eternity and harmoniousness of the existing social relations lies in this forgetting'.

Despite this limit to capitalism, Marx realised that the bourgeois form of production was consistent with the most highly developed and complex form of society that the world had seen at that time (the late nineteenth century). The two major peculiarities of the capitalist mode were 1) the predominant commodity economy, and 2) the incessant exploitation of labour. Essential to these peculiarities were the oversupply of labour power, the growth of relative and absolute surplus...
labour time, the increased productivity of labour through technological
developments, and the growth of means of labour and means of
production. Hence the build-up of skills, the increased division of
labour within the production apparatus as a whole, and the simultaneous
growth of monotony and simplicity of the work-process.

It is within the sphere of production that the social relations, value
and distribution are largely predicated. However, it is only latent
determination, and becomes manifest only within the context of the
whole of capitalist production. Since a mode of production is a unity
of the relations and forces of production, and since production must
become realised to become effective, the whole is indeed a multifarious
process. Hence capital must be examined more closely in order to
illustrate that the 'very nature of capital leads to crises'.

It should be remembered that Marx attempted to demystify the social
relations of capitalist production. Part of the method of demystifica-
tion lies in transforming analysis from the general (abstract
universal) to the abstract specific. The abstract specific analyses
the fundamental peculiarities of the structure, devoid of 'minor
subterfuges' or surface phenomena. It is this method in its totality
which distinguishes the early from the intermediate work of Marx.

As Marx said:11

If, then, the specific form of capital is abstracted away,
and only the content is emphasized, as which it is a
necessary movement of all labour, then of course nothing
is easier than to demonstrate that capital is a necessary
condition for all human production. The proof of this
proceeds precisely by abstraction from the specific
aspects which make it the moment of a specifically
developed historic stage of human production ... Capital
is conceived as a thing, not as a social relation.
In order to contrast capitalism as a mode of production, the capital-worker relation was the central point of analysis for Marx. As distinct from the practice in the Excerpts and the Paris Manuscripts, which emphasized the ownership and non-ownership of private property, the Grundrisse centred on the structural implications of the distinction between those who controlled the means of production, and those who had only their labour power to sell. 12

The production of commodities must be evaluated in terms of the dynamic relation between capital and wage labour; dynamic in the sense of analysing the laws of motion of capitalism within a long-run framework. Since commodity production and surplus value extraction were the two fundamental peculiarities of capitalism, a long run theory must centre on changes in these variables over time. And more importantly, a long run theory of the commodity called labour power, the source of value. 13

Looked at from a different perspective - but one certainly appreciated in the Grundrisse - this is a long run theory of labour; that which under capitalism is alien not only from its object and its subject, the satisfaction of personal wants, and the full development of individual capabilities (as was shown in the Paris Manuscripts), but also from the benefits of the 'rational' use of the expanding surplus value. Hence a long run theory of the major contradiction between the revolutionary nature of the productive forces, and the relatively static relations of production. (i.e., barriers to capitalism).

The Barriers of Production

As an essential barrier of capitalism, from within the dominant sphere of production, Marx posited in the Grundrisse a major contrad-
iction as being the finite nature of the development of marginal surplus labour time. This concept is defined as the effect of a revolution in the development of the forces of production (productivity of labour) on the increase in surplus labour time. The following example used to illustrate Marx's argument is based on the following assumptions:

1. The original division of the working day is 0.9 for the necessary, and 0.1 for the surplus labour time;
2. The total working day (labour time) is constant;
3. Each time period \((t, t-1)\), bar the first, represents a doubling of labour productivity relative to the previous period;
4. There are two classes: capitalists and workers;
5. The economy is closed in the sense that there is no foreign trade;
6. Prices are equal to values (when expressed in related terms).

It is necessary to introduce three equations in relation to the marginal surplus labour time:

\[
\begin{align*}
(1) \quad N_t &= N_I/\bar{v}_i \\
(2) \quad S_t &= 1 - N_t \\
&= 1 - \frac{1}{(v^i N_i)} \\
(3) \quad S_t/S_{t-1} &= a(\frac{\bar{v}_i}{a^i} - N_I)
\end{align*}
\]

Where:
- \(N\) = necessary labour time
- \(\bar{v}\) = the magnitude of increase in the productive forces for every movement through time
- \(S\) = surplus labour time
- \(a\) = the inverse of \(\bar{v}\)
- \(i = 1, 2, 3, 4, \ldots n\) (for every revolution in the productive forces).

The actual value of \(S_t/S_{t-1}\) depends on the original relation of necessary to surplus labour time. For instance, given the original relation as cited in assumption 1 (above) in comparison with an
economy with a relation of 0.8 \( (N_1) \) and 0.2 \( (S_1) \), the values of the marginal surplus labour time are:

<table>
<thead>
<tr>
<th>( t )</th>
<th>( \frac{dS}{S_t} / S_{t-1} )</th>
<th>( N_1 = 0.9 )</th>
<th>( N_1 = 0.8 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>( \frac{2 - N_1}{1 - N_1} )</td>
<td>5.500</td>
<td>3.000</td>
</tr>
<tr>
<td>3</td>
<td>( \frac{4 - N_1}{2 - N_1} )</td>
<td>1.409</td>
<td>1.333</td>
</tr>
<tr>
<td>4</td>
<td>( \frac{8 - N_1}{4 - N_1} )</td>
<td>1.145</td>
<td>1.125</td>
</tr>
<tr>
<td>5</td>
<td>( \frac{16 - N_1}{8 - N_1} )</td>
<td>1.063</td>
<td>1.055</td>
</tr>
<tr>
<td>6</td>
<td>( \frac{32 - N_1}{16 - N_1} )</td>
<td>1.0298</td>
<td>1.0263</td>
</tr>
<tr>
<td>( \vdots )</td>
<td>( \vdots )</td>
<td>( \vdots )</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>( \frac{512 - N_1}{256 - N_1} )</td>
<td>1.0018</td>
<td>1.0016</td>
</tr>
</tbody>
</table>

This example has shown that, for every revolution in the forces of production - or, the more developed the surplus portion of the work-day relative to that which is necessary for workers subsistence - the smaller is the marginal surplus labour time. Now, since the growth of the capitalist mode is consistent with relative reductions in the necessary part of the work-day, sharp limitations to the production of surplus value are inherent in the structure of capitalism. This is especially important in association with changes in the rate of profit (for instance, over the range of the trade cycle), which needs to be examined in some detail.
It is necessary to emphasize the discursive element in the *Grundrisse*. While this work was a great advancement in methodology, conceptual development and exhaustive theoretical construction, it was nevertheless considerably less specific than might be desired. The constant impression on reading this work is Marx's "working out of theory". Due to this factor, the ontological, epistemological and methodological aspects of dialectical materialism were overtly displayed; this is the most important aspect of the *Grundrisse*. But it seems to have inhibited clarity. An example is the concept of the rate of profit.

Marx assumed that the predominant motive for capitalist enterprise is the rate of profit. Things are very much simplified with the assumption (from page 35) that values are equal to prices (although things are not so simplistic if this relates either on average or at the macroeconomic level\(^{15}\)). With this assumption the rate of profit can be calculated from the rate of surplus value to the total (variable and constant) capitals employed.

**Definitions**

Surplus value is the difference between the value of the product and the value of the elements consumed in the formation of the product (s).

Variable capital is the value of labour power employed in the production process (v).

Constant capital is the value of the means of production, including raw materials, auxiliary materials and the instruments of labour, employed in the production process (c).

Related to the example cited above: surplus value is the money value of the surplus labour time; variable capital is the money value of the necessary labour time; and constant capital is the money value of the forces of production employed in the production process.
The formation of the concepts constant and variable capital were fundamental to a critique of the Ricardian theory of profit, and to crisis theory itself. In defining capital on the basis of the capital-labour relation Marx was able to improve the applicability of the labour theory of capital. Instead of the Ricardian definition of the rate of profit, the ratio of surplus value to the variable portion of circulating capital (i.e., \( s/v \)), Marx placed the definition in its more capitalist form through the introduction of constant capital (\( s/(c+v) \)). Constant capital was viewed as embodied labour-time; and with its twin, variable capital, it illustrated the conception of capital within the production process, rather than being based on its durability (as was the distinction of fixed and circulating capital). This can be considered as one of the most important developments which had its origin with the *Grundrisse*.\(^\text{16}\)

The mathematical and numerical example of the revolutions in the productive forces was related to the limit on the rate of profit for the capitalists. (see pp. 35-6). When considered devoid of realisation problems - in line with the model from the sphere of production - it is evident that the limits on the marginal surplus labour time provide an effective barrier to capitalist development (i.e., to the rate of profit). Two other barriers include the variable capital (necessary portion of the work-day), and the length of the work-day (necessary plus surplus portions of the work-day). Indeed, the three barriers all correspond to the second barrier, the fact that value itself is dependent on the employment of labour power. As the employment of labour power declines so too does the value produced; and the decline in employment of labour power is related to the law of the tendency for the constant part of total capital to rise.
(in relation to the variable capital) more than the rise in the rate of surplus-value. The limit on the marginal surplus labour time (even granted the falling tendency of the necessary labour time) provided the theoretical justification for the conception of the rate of profit to fall. And while the capitalists are able to increase the length of the work-day, use child labour, etc., and use "speed-up, stretch-out" techniques, there are basic limitations on the ability of these phenomena to counter the tendency. Far more effective in countering the tendency is the periodic development of crises: the destruction of capital and labour, and the growth of unity between opposing forces. However, to understand this more fully it is necessary to examine the sphere of circulation, where the basic contradictions of the mode become realised.

The Manifestation of Contradictions

It was noticed in Marx's earlier work that two necessary characteristics for commodities are the 'possession' of use-value and exchange-value: the unity of which is a formal constituent of commodities. In other words, commodities must be both useful to the consumer and have value - the incorporation of socially necessary labour time. When considered in association with the capital-labour relation, the commodity is conceptualised as a social relation. The commodity itself is the result of the use of living and embodied labour; the classic alienation of labour from its object and the full realization of potential.

With its durability and homogeneity, and as the reflection of the 'materialization of universal labour-time', money is a necessary medium for the realisation of commodities on the market. Money also promotes the disunity of worker to capitalist, of purchase and sale,
of product and producer, and of use-value and exchange-value. The functions which enable the basic contradictions of the mode to surface include: (1) measure of exchange of commodities; (2) medium of exchange; (3) store of value; and (4) standard of deferred payment. Within the workings of the capitalist system it was evident to Marx that: 'Money does not create these antitheses and contradictions; it is, rather, the development of these contradictions and antitheses which create the seemingly transcental power of money.'

Examined purely from the sphere of circulation, there are no pervading contradictions of the capitalist economy, and no reason why crises should be considered inevitable. Hence the reason why many obsessed with a fetish observation of capitalism have sought to explain crises by reference to exogenous factors (e.g., the role of the monetary authorities, or the State). In fact, however, circulation mystifies the production of surplus value and the dynamics of growth.

Hence, in order to understand the inner workings of capitalism, Marx distinguished between 'labour capacity' (labour power) and the 'creative power of labour' (value created by labour). When this distinction is illustrated, one begins to realise that the exchange value of labour power is less than its use-value; its price is less than created value. Under conditions where labour becomes more productive, in the competitive environment, the contradiction between the limited use-value and the expanding price of the commodities necessitates destruction of capital, crises and cataclysms. The former situation, the price of labour power being less than the 'value created by labour', is analytically different to the price of labour power being greater than its value. But, of course, the use made of the surplus value in the commodity economy predates the latter deviation of value from price.
To understand the contradiction between the laws of value and the price of commodities, it is necessary to have a theory of money.

In the Marxian schema, the money supply is a function of three major variables:

\[ \text{Ms} = f(P, Q, V) \]

Where: \( \text{Ms} = \text{money supply} \)
\( P = \text{prices of industrial commodities} \)
\( Q = \text{quantity of commodities entered into circulation} \)
and \( V = \text{the velocity of circulation of money} \)

For reasons of specificity, it is necessary to add that:

This much is clear, that prices are not high or low because much or little [money] circulates, but that much or little money circulates because prices are high or low; and, further, that the velocity of the circulating money does not depend on its quantity, but that the quantity of the circulating medium depends on its velocity...[Also,] the circulation of money does not begin from a single centre, nor does it return from a single centre from all points of the periphery (as with the banks of issue and partly with state issues); but from an infinite number of points, and returns to an infinite number...The velocity of the circulating medium can therefore substitute for the quantity of the circulating medium only up to a certain point.

With this in mind, Marx was able to attempt an explanation of the causal relation determining changes in the general level of commodity prices throughout the different phases of the business cycle. Why, Marx asked, was there a sudden fall in prices after a prolonged general rise in prices? Obviously, he rejected an answer to this question which centred on surface phenomena (e.g., a reduction in the rate of increase of the money supply, or of the absolute money supply).

He thus rebuked James Mill's theory of money which suggested that price changes depended predominantly on the supply of money, and that all the money present in an economy is actually in circulation. For an
explanation of these price changes Marx centred on the contradictions of the capitalist mode: the dynamics which kept the system in constant motion.

The antithesis of use-value to exchange-value is related to the deviation of prices from values. The basis of exchange-value and prices is value or use-value: the rise of the predominant commodity economy is still dependent on the socially necessary labour-time. The further the use-value of labour-power deviates from its exchange value, the greater the potential for prices to deviate from values. As saw noticed above, the greater the productivness of labour with the development of capitalism, the smaller the marginal surplus-labour time. Hence the need to negate these contradictions through the destruction of capital and unemployment of labour, increasing the length of the work-day, etc.

The reason for these periodic changes follows from the social conditions of production and circulation. With the competitive process, and the growth of means of production and differing rates of profit throughout the economy, demand for the 'new technology' based labour power increases. With the tendency for the rate of profit to equalise throughout the economy, the newer techniques no longer give some capitalists a profit advantage over the other capitalists. The motive for capitalist growth falls off, as does capacity utilization and the employment of labour power. Prices subsequently fall, wages drop below the value of labour capacity (power), and a generalized recession may set in (in the manner suggested by Marx's articles in the Neue Rheinische Zeitung Revue).

Periods of prosperity are characterized by demand for labour,
commodities and money above the supply; and the raising of wages, plus input and output prices. The subsequent crises precipitates the supply of labour, commodities and money below the supply; and the lowering of wages and prices below value. As Marx said:23

The value of commodities as determined by labour time is only their average value [over a certain period.] The market value is always different, is always below or above this average value of a commodity. Market value equates itself with real value by means of its constant oscillation [over the range of the cycle.]

... Price therefore is distinguished from value not only as the nominal from the real;...but because the latter appears as the law of the motions which the former runs through...Supply and demand constantly determine the prices of commodities;...but the cost of production, for its part, determines the oscillations of supply and demand.

This follows from the postulate that the sphere of production is the dominant field of analysis. There are three major propositions which follow from such a position. First, the further prices deviate from values, the closer the economy is to a turning point in the business cycle (given a generalized effect throughout the economy). Second, as was also shown in the Poverty of Philosophy, 'when supply and demand are evenly balanced, the relative value of any product is accurately determined by the quantity of labour embodied in it.24 Of course, the very nature of capitalist growth presupposes disequilibrium conditions, so this position is improbable. And third, the function of money as a means of purchase independent of a means of payment provides the 'germ' or possibility of crises.

Marx thought that crises become manifest in realization problems: commodities cannot be sold at the prevailing prices, so a devaluation of commodities obtains on the market. He constructed a model to illustrate the inability to realize profits.25 Throughout the examples
the turnover period \((R)\) is defined as the production phase \((p)\) plus the circulation phase \((c)\) of capital as a whole. Hence:

\[(5) \quad R = c + p.\]

The production phase is the total of the necessary and the surplus labour time (see p. 35):

\[(6) \quad p = S + N\]

The number of turnovers \((\tilde{Q})\) is shown by the time period \((T)\) divided by the turnover period:

\[(7) \quad \tilde{Q} = T/R\]

It follows from this that \(T = p\tilde{Q} + c\tilde{Q}\), where \(p\tilde{Q}\) represents the total production time and \(c\tilde{Q}\) the total circulation time. The relation of the circulation time to one turnover of capital is \(c/R\). From this whole system it is possible to cite a number of important relations. First, \(\tilde{Q}\) also represents the coefficient of surplus labour time. And second, the total of the surplus labour time over the turnover period, shown as \(S'\), is defined as

\[(8) \quad S' = S \frac{T}{p} - \left(\frac{T}{P} \cdot \frac{c}{R}\right) \]

or \(= S(T - c\tilde{Q})/p\)

The contradictions of the mode which surface within the sphere of circulation can be illustrated conceptually be the following examples. In example one (with most figures shown as 'days'), \(R = 60, (p = 60, c = 0), N = 40, S = 20, T = 360, \tilde{Q} = \text{coefficient of } 6, S' = 120\). This is the situation with a circulation period of zero.

But example two introduces a circulation period of 30 days: not so much due to the direct costs of circulation, but due to overproduction.
In other words, while the value of the commodities and labour-power have remained the same from the sphere of production, prices higher than the conditions of effective demand can realize have obtained within the sphere of circulation. Hence, \( R = 90 \), \( p = 60 \), \( c = 30 \), \( N = 40 \), \( S = 20 \), \( T = 360 \), \( \bar{Q} = \) coefficient of 4, \( S' = 80 \). The only variables which have changed due to the period of circulation increasing from zero to 30 are the turnover period (R), the coefficient of surplus labour time (\( \bar{Q} \)) and the realized surplus labour time (\( S' \)).

Of course, the realization problem is a tautological explanation of crises, since it emphasizes the surface phenomena of capitalist society; it can only be fully understood when related to abstract crises (the major contradiction of the mode) and concrete crises (the actual nature of overproduction). When examined in this light, the necessity for overproduction to lead to recession when affecting the major industries of the economy is understood as the movement towards unity of price and value, capital and labour, supply and demand, etc. As this movement progresses (unemployment, reduced prices, bankruptcies), so the variable \( \bar{Q} \) increases with the rising rate of profit (and hence \( S' \)). Thus the movement towards disunity, the tendency for the equalization of the rate of profit, overproduction and crisis. As Marx said:

...the higher the development of capital, the more it appears as barrier to production - hence also to consumption...[And] so grows the difficulty of realizing the labour time contained in them - because the demand made on consumption rise. (We are...concerned here only with the way in which the capital realization process is its devaluation process...)

The parenthetical remark by Marx is important since it suggests that the reference is only to a limited component of the totality of contradictions of capitalist society. This point is essential to note,
since it illustrates the possibility of conceptualizing the phenomena of crises in an underdeveloped form; i.e., through the emphasis on one or two parts of the totality. There are, according to Marx, four main contradictions which predicate crises; they include:

(1) **Necessary labour** as limit on the exchange value of living labour capacity or of the wages of the industrial proletariat;
(2) **Surplus value** as limit on surplus labour time; and, in regard to relative surplus labour, as barrier to the development of the forces of production;
(3) What is the same, the transformation into money, exchange value as such, as limit of production; or exchange founded on value, or value founded on exchange, as limit on production. This is
(4) again the same as restrictions of the production of use values by exchange value; or that real wealth has to take on a specific form distinct from itself, a form not absolutely identical with it, in order to become an object of production at all.

It is in this sense that the crises are the forcible establishment of (near) unity between production and circulation. Periodic crises can only be understood with reference to this unity. The conditions of production posit fundamental limits to development, which the sphere of circulation constantly seeks to transcend. Since, however, the very progress of the capitalist mode depends on the restrictions of the law of value, this disunity creates crises, which are requisite for further capitalist growth. The nature of capitalism presupposes barrier - growth - barrier, which is the essence of the motion of a determinate mode. And both production and circulation play their part in this dialectical process, in order to provide the conditions for a higher form of society.

Marx, then, went beyond the sophism of Say's Identity by showing how disequilibrium and general overproduction were not only possible, but
actually essential under the capitalist form of economy. The barriers were endogenously determined by the contradiction between the revolutionary nature of the forces of production, and the relatively static social relations under which capitalism survived. The historic role of capitalism was undermined by the antagonistic relations between social classes within the sphere of production. Capitalists needed to exploit the workers in order to develop the forces of production. But the very process of exploitation both promoted and inhibited the growth of the rate of profit. The employment of labour power was the basis of a positive rate of profit, but it also entailed a sharp limit on the capitalists share of the net national product. While the employment of new technology (embodied labour time) became increasingly less effective in boosting marginal surplus labour time (and also profits through the operation of supply and demand and competition.

In order to investigate the nature of crises within the framework of forces which improve the growth of the rate of profit (beyond the two factors cited in the Manifesto), and pave the way for new tendencies in the growth of crises, it is necessary to consider the concept of barrier-growth-barrier within the longer time horizon.

**A Long Run Theory of Crises**

Marx was interested in constructing a theory of the inner workings of the capitalist mode of production: the determination of value, the contradictions which provided the source of motion, changes within the mode predicated by tendencies of development, etc. This knowledge was thought by him to be important for correct political action or strategy. The Anticipated Theoretic Whole was to be the form of presentation and development of such a theoretical framework. While the Grundrisse did
investigate in some depth all the components of the Theoretic Whole, it was not in accordance with the full completion of this system. Rather, it paved the way for the development of concepts, methodology, and theoretical structure, all essential ingredients for possible later developments of the Theoretic Whole.

Nevertheless, even though it was not exhaustive on the elucidation of a long run theory fully consistent with the Theoretic Whole, it did provide some important insights into capitalist development. But first it was necessary to negate many of the false premises and concepts of the Ricardian school of economics. The theory of profit was to be Marx's main point of contention with the Ricardians. Since this will be studied in chapter four it is sufficient to note here that the demise of the capitalist motive for accumulation, based on diminishing returns to agriculture, was not part of his long run theory.

It was noticed above that the theory of the tendency for the rate of profit to fall for Marx was a periodic phenomena. Crises of overproduction were necessary for the eventual recovery of capitalist profit. But since capitalist enterprise generally abhors these limits on the rate of profit, it will constantly seek to transcend them. According to Marx, a proper theory of the growth of capitalism must come to terms with the following factors; measures undertaken for the greater production of surplus value; or realisation of profit.28

1 A tendency for the promotion of the world market - a factor directly given to the concept of capital;

2 The suspension of direct use-values not entering into exchange;

3 The substitution and transformation of the capitalist mode for other social formations;
4 The creation of new needs through the discovery of new potential exchange-values (and hence use-values);

5 The development of qualitatively different branches of production;

6 The more intensive and expansive 'exploration of nature' with the progress of science;

7 The expansion of the division of labour and the creation of new skills for labour;

8 The tendency for the increase of industrial labour at the expense of the rural economy (regional inequality);

9 The growth of monopoly elements or tendencies within productive enterprise;

10 The lowering of taxation on capitalist enterprise; and

11 The capitalisation of land-holdings (the reduction of ground rent).

It should be remembered that in the Manifesto Marx stated two major methods for negating the periodic fall in the rate of profit: the expansion of capital on the world scale; and the more thorough exploitation of labour power. The latter results from the general process of crises (unemployment, wages below the value of labour power, etc., inherent in the recession). While the former is included in the eleven factors mentioned above (directly given under factors 1 and 3; indirectly under 2, 4, 5, 6, although these also go beyond the point mentioned in the Manifesto).

It was concluded in chapter two that the analysis of the counteracting variables was not well specified in the Manifesto (and probably inconsistent). As compared with the Manifesto, the investigation given in the Grundrisse was a definite advancement; although this is to be expected given the frame of reference and length of the 1857-58 manuscript. In fact, the analysis given of these factors in the Grundrisse was very restricted: Marx thought that all eleven factors would provide both the growth and the barrier to capitalist profit.
And while this is consistent with the dialectic, a detailed evaluation was lacking of the precise long-run determination of these factors.

Despite the lack of detailed analysis, the effect of some of these eleven factors seems to be similar to the specifications given in the Manifesto. The exhaustion of markets (see points 1, 3, 5 and 6) was thought by Marx in both works to provide a significant barrier to capitalist development (i.e., production of marginal surplus labour time). This followed from the assumption that the extension of the capitalist world market relations would eventually dissolve all the pre-capitalist social formations.

Marx was, of course, limited by the social practice of his time; and therefore he tended to underplay the importance of regional inequality (see point 8) in the form of the centre-periphery relations between the more and the less developed forms of capitalist society on the world scale. The implication for Marx's presumed exhaustion of markets is that, as this process developed, so too did the inability of science and new skills of labour (points 6 & 7) to promote the rate of profit. Hence the decline of competition, the growth of monopolies (point 10), and the lower incidence of taxation on capitalists (rather than workers or consumers). By means of capitalist-serving governments diverting national product from wages to profits, this may be seen to improve the survival of capitalist-monopoly enterprise; and increasing the immiserization of the working class. With the greater ability of prices to diverge from values, crises must necessarily get more intense. And what eventually happens may depend on the class struggle, as determined by the social conditions of society.

These implications are nowhere spelt out in the Grundrisse. In fact,
little emphasis is given in this work to the immiserization of the proletariat. This is true even though Marx demonstrates the operation of the laws of distribution (and the forces of accumulation) in limiting the necessary portion of the work-day (at subsistence levels); the awarding of wages which are below subsistence levels during recessions; and the law of relative surplus population which is peculiar to capitalism.

The fact that many of the points mentioned in the Manifesto are apparently not developed in this 1857-58 manuscript hides the relation between the two works. The Manifesto, the Poverty of Philosophy and the Paris Manuscripts provided the theses to be tested more thoroughly later. The concepts of alienation and the mode of production, the distinction between prices and 'natural values', etc. are all carried over to the Grundrisse. If anything fundamental changed in the working out of theory between the Excerpts and the Grundrisse then it would be the predominant importance of the sphere of production. While this was discussed with reference to the class relations in the Paris Manuscripts, the revolutionary role of capitalism was not stressed there, nor the essential place of crises in the functioning of capitalism.

31 The Manifesto sought to emphasise revolution, crises and contradiction: again, however, this was done without an understanding of the detailed workings of the spheres of production and circulation in its entirety. Since Marx thought that class conflict depended largely on these contradictions, the role of the Grundrisse was 1) to comprehend these contradictions at the base (i.e., the infrastructure), and 2) to provide a framework for future theoretical development.
With this understanding it becomes obvious that Marx did not intend to provide a rigorous proof of the long run growth of capitalism in the *Grundrisse*. This was to form the more concrete sections of the Anticipated Theoretic Whole (which was not complete in his lifetime). Nevertheless, the major tendencies were stated and sometimes illustrated; but no further.

The major problem is to resolve the problem between Marx's references to short and long term crises. He saw a definite connection between the periodic crises, which were essential for capitalism to survive, and the long run crisis, which posited its eventual demise. There is no doubt that he thought the relation was the increasing severity of the periodic crises. As he said: 'these regularly recurring catastrophes lead to their repetition on a higher scale, and finally to its violent overthrow.'

Precise statements on the relation of the tendencies of capitalist development to the more intense crises were missing.

The closest Marx got to such an analysis was the implication cited above on the exhaustion of markets, etc. He evidently thought that these 'counteracting factors' (1-11) to the falling rate of profit would cease to be totally effective as capitalist production became internationalised. This condition and the decline in the rate of profit is identical in meaning (1) with the productive power already produced, and the foundation formed by it for new production; this simultaneously presupposes an enormous development of scientific powers; (2) with the decline of the part of the capital already produced which must be exchanged for immediate labour, i.e., with the decline in the immediate labour required for the reproduction of an immense value...; (3) the dimension of capital generally, including the portion of it which is not fixed capital; hence intercourse on a magnificent scale, immense sum of exchange operations, large size of the market...means of communications etc.
Marx then thought that it followed from this analysis that:

The growing incompatibility between the productive development of society and its hitherto existing relations of production expresses itself in bitter contradictions, crises, spasms. The violent destruction of capital not by relations external to it, but rather as a condition of its self-preservation, is the most striking form in which advice is given to be gone and to give room to a higher state of social development.

...When it has reached this point, capital, i.e., wage labour, enters into the same relation towards the development of social wealth and the forces of production as the guild system, serfdom, slavery, and is necessarily stripped off as a fetter...; the material and mental conditions of the negation of wage labour and of capital... are themselves the results of this production process.

However, he did not provide direct proofs of 'link' between the short and the long run crises to substantiate the above reference to the increasing intensity of crises and the 'violent overthrow'. This is not surprising in view of the fact that the Grundrisse did not accord with the totality of the Theoretic Whole.

But while no proofs of decline were developed from a long run theory of capitalism, by way of a political economic model, it is possible to find a rigorous theoretical (and historical) link at another level of inquiry. Such a view presupposes the application of the dialectical methodology and ontology, either within discourse or inquiry.

The substantive application of the method centres on the examination of contradiction (as has been emphasized above). A structure 'exists', and is in dynamic change only so far as it possesses contradictions. With reference to the forces of change 'within a body', both the force and the body predicate positive and negative determination. Superficial investigation is thought to ignore these underlying movements" to revert to tautologies, exogenous factors, or simply ignore the conflict
or disequilibrium inherent in the structure of the body.

Forces 'bent on the sharp point of contradiction' are by no means general characters, otherwise being resolved into nothingness: for, even where there is movement towards unity, self-contradiction still persists. Sofar as the structure is concerned, 'changes from Variety into Opposition and so into Contradiction' are the general laws which constitute or reflect the sum total of the realities for the growth of the predominant mode. Variety constitutes the various classes and conditions of the non-predominant mode. Opposition represents the developing antitheses. And the basic Contradiction 'must be explained from the [conditions] of material life, from the conflict existing between the social forces of production and the relations of production.'

It follows from the 'contradictory nature' of the mode that there is endogenous determination for change and development. Exogenous factors operate only from within the confines of the limits imposed by the laws of motion of society. Within the context of the particular mode, it is essential to analyse both elements of a single contradiction, and its operation in the different stages of development of the social formation.

Thus it was with Marx's political economy that he constructed 'sets of structural contradictions', from within the holistic development of the capitalist mode: between use value and exchange value; wage labour and capital; value and prices; production and circulation; and supply and demand. And the development of the mode was thought by Marx to be largely dependent on the 'tendencies of capitalist dynamics': the tendency for the concentration of capitals; the
rising ratio of constant to total capitals; the internationalization of capital; the falling rate of profit, etc.

Although these tendencies and the contradictions were thought by Marx to evolve from the effects of the predominant mode (and to reinforce or pose barriers to the mode), they were also factors which negated the mode. However, 'Contradiction...itself...is not, so to speak, a blemish, deficiency or fault in a thing.' On the contrary, 'every determination, every concrete, every concept is essentially a union of distinguished and distinguishable movements, which pass over through determinate and essential difference and contradictory moments.'

The deliniation of barrier, limit and final negation lies within the very structure of the contradictory mode itself. As Marx suggested, capitalism is finite rather than Absolute, the barrier is its essential quality. 'It is the very being of finite things that they contain the seeds of perishing...their death.' Between the finite and the infinite no resolution is possible; that which is bounded will finally pass beyond its barrier into "nothingness-for-itself", which means that it will be synthesized into the development of the new mode of production. Hence:

From forms of development of the productive forces these [production] relations turn into their fetters. Then begins an era of social revolution ... But no social order is ever destroyed before all the productive forces for which it is sufficient have been destroyed, and new superior relations of production never replace older ones before the material conditions for their existence have matured within the framework of the old society ... The bourgeois mode is the last antagonistic [finite] form of the social process of production ... [and] the productive forces developing within bourgeois society create also the material conditions for a solution of this antagonism. The prehistory of human society accordingly closes with this social formation.
Hence the importance of the dialectic, 'the teaching which shows how opposites can be and how they happen to be (how they become) identical' and contradictory. 'All things are limited and changing. They not only force their way and are pushed into existence and maintain themselves there. They also develop, disintegrate and are pushed out of existence and eventually disappear. In logical terms, they not only affirm themselves. They likewise negate themselves.' Thus capitalism 'encounters barriers to its own nature, which will, at a certain stage of its development, allow itself to be recognised as being itself the greatest barrier to this tendency [to strive for universality], and hence will drive itself towards its own suspension.'

That this dialectical conception of history formed the basis of the theory of the terminal crisis seems obvious from a reading of the Grundrisse. Reference to the barriers to capitalist development, the ahistoric method of the classical economists, and the finite nature of class societies, is made throughout the whole volume. And in a letter to Engels on January 14, 1858, when Marx was in the process of writing this manuscript, he stated quite explicitly that:

By the way, things are developing nicely. For instance... [In] the method of treatment the fact that by mere accident I again glanced through Hegel's Logic has been of great service to me.

The Logic contains a brilliant, but idealistic analysis of the concepts of Contradiction, Finitude and Infinitude, the Absolute and the Determinant, Barrier-Growth-Barrier and Variety-Opposition-Contradiction. Also, Hegel provides a framework for examining the relation of existence to essence, the transition from the lower to the higher qualitative forms, and the the theoretical aspects of methodology.
The chapter of the Logic entitled 'The Absolute Idea', clearly reveals the substance of both the methodological foundation of the Grundrisse and the relation of the short-run to the terminal crises. Consider the obvious relation of the following points taken directly from the Logic to the method employed in the Grundrisse.

(1) Hence the method must be recognised to be universal without restriction, to be a mode both internal and external, and the force which is utterly infinite, which no object can resist ... also it can neither have a particular nature as against [the method] nor fail to be penetrated by [the method]...

(2) First we must begin from the beginning. Because it is the beginning its content is immediate, but an immediate which has the meaning and form of abstract universality [i.e., abstract general]...

(3) Consequently it may well be said that every beginning must be made from the Absolute, that every progress is merely the exhibition of the Absolute [for] that which is in itself....

(4) the negative of the negative...is this transcendence of the contradiction...; The first premise is the moment of universality and communication; the second is determined by individuality, which at first is in an exclusive relation to the Other, as existing for itself and as different...

(5) The universal is the foundation [whereby] cognition rolls forward from content to content. This progress determines itself, first, in this manner, that it begins from simple determinateness and that each subsequent [movement] is richer and more concrete....

(6) The method thus forms a circle...

The method of inquiry considered above clearly accords with the "Introduction" to the Grundrisse, and various parts of the main body of the work itself. Both Marx and Hegel recognised the importance of proceeding within discourse from the abstract general to the concrete levels of analysis. The "movement in a circle", for Marx, was the point of departure of inquiry from discourse: inquiry studied the real social formations, and projected a set of universal characters, whilst discourse used these characters to examine the concrete predications...
(and eventually to the real surface relations of society). Hence the circular motion.

By using a universal methodology it was possible to study all modes of production (and social formations). It was also feasible to understand the contradictions of every mode, and the essential differences which determine these characters. While every contradictory mode eventually develops terminal crises, the particularity of capitalist production predicates periodic crises. In this sense they form part of the concrete level of analysis (for methodology). But, however, for Marx, the two forms of crises were essentially related. First, because the major contradiction of the mode determined the "abstract" crises - potential crises. Second, because these abstract crises enabled periodic and terminal crises; i.e., they have a common genesis. And third, the periodic become intimately fused with the terminal forms, and eventually become indistinguishable - the one passes into the other.

It was only the third of these relationships which Marx failed to examine in depth in the Grundrisse. The Manifesto specified the relation in simplistic terms, since Marx did at that time think that link was quite immediate (i.e., he foresaw the success of a pending revolution, itself largely due to the depressed conditions of the masses throughout Europe during the middle nineteenth century). But with the failure of the 1848 revolution Marx soon realised the need to study capitalist production as a whole in greater depth. Hence the formulation of the structure of the Theoretic Whole in the Grundrisse, the realisation of which would have provided an integrative and rigorous specification of the "link" between terminal and periodic
crises.

It is in this sense, then, that Marx can be said to have had a "dual conception of crises." However, such a statement should be qualified with reference to the fact that they were related structurally to the major contradictory relations of capitalism. And while for historical, theoretical and methodological reasons this connection was not well specified in a long run theory of capitalism, 'from the beginning which Marx had obtained, a result likewise emerges in the course of the method, so that the progress also rolls forward to infinity.'\textsuperscript{47}

It is now the task of further chapters to investigate the degree to which Marx incorporated this development within his theoretical schema.
CHAPTER FOUR

THE VERY NATURE OF CAPITAL LEADS TO CRISES

The Clash With Ricardo

It was noticed in chapter two that the notion of Essence provided Marx with a useful tool with which to critically analyse capitalist society. The further the divorce of Existence from Essence, the further the alienation of labour from Pure Being. Capitalism, being consistent with the most extreme form of alienation, constantly attempts to produce sharp divergence of prices from values; but this deviation from the essential laws of value necessitates periodic crises. Since, however, these crises never result in Existence fully conforming with Essence, the peculiar nature of capitalism predicates further crises.

It was only with the Grundrisse that these earlier concepts were examined more fully. In this work alienation was conceived as being more relevant to the lack of control or ownership of the means of production. If essence was considered, then it was within the framework of such a power relationship: under capitalism, the worker is alien from the full capacities of human development; from the more 'rational' use of the expanding surplus value: Hence the more direct relation between crises and capitalism (changes in the level of investment, in contradiction with the laws of value).

The 1861-63 work entitled Theories of Surplus Value must be studied in the context of the conceptual tools developed in the Grundrisse. More particularly, with the acknowledgement that the theoretical changes inherent in the working out of the Grundrisse were more
clearly formulated; and that the Theories had a more specific purpose in mind. A critique of existing theories of surplus value was essential for Marx's own theoretical progress. This presupposed a more detailed comprehension of the workings of the sphere of production (in particular). On close inspection of this sphere Marx showed that "The alienation and the antagonism between labour power and the objective conditions of labour which have become independent in the form of [constant capital,] thereby grow continuously." But this presupposes conditions where labour fails to control the means of production; where another class has a pervading motive to exploit the surplus product of labour. This factor is profit or, more specifically, the rate of profit. And the Theories showed once-and-for-all that the theoretical break between Marx and the Ricardian school of economics, centred on precisely this variable (ignoring issues directly relating to methodology and ontology for the moment).

The system which Marx reacted against was based on the following operational assumptions:

1. The price of corn is regulated by the quantity of labour necessary to produce it;
2. The value of commodities is divided between the "profits of stock" and wages;
3. Prices of other products besides corn are constant;
4. The effective payment of rent falls on the consumer (and ultimately on capitalists);
5. Wages are at subsistence levels (and are constant in real terms);
6. The motive for capitalist accumulation is the rate of profit (defined as surplus value divided by wages);
7. Diminishing returns gradually start to develop in agriculture.

These assumptions, when integrated with a dynamic theory of capital accumulation, proposed to explain that:
The natural tendency of profits then is to fall; for, in the progress in society and wealth, the additional quantity of food required is obtained by the sacrifice of more and more labour. This tendency, this gravitational as it were of labour, is happily checked at repeated intervals by the improvements in machinery connected with the production of necessaries, as well as by discoveries in the science of agriculture, which enable us to relinquish a portion of labour before required, and therefore to lower the price of the prime necessary of labourer. The rise in the price of the necessaries and in the wages of labour is, however, limited; for as soon as wages should be equal to the whole receipts of the farmer, there must be an end of accumulation; for no capital can then yield any profit whatsoever, and no additional labour can be demanded, and consequently population will have reached its highest point. Long, indeed, before this period, the very low rate of profits will have arrested all accumulation.

Marx thought that this theory was counter to an accurate understanding of the major tendencies and characteristics of the capitalist mode. Ricardo was shown by Marx to be the product of the contradictory relations between the growth of capitalist enterprise and scholarly discourse. Ricardo failed to adequately apply the labour theory of value to the capitalist economy; therefore, he held a distorted view of the nature of accumulation, the role of competition, the revolutionary and destructive process of capitalist development, and the endogenous determination of crises.

Marx's rejection of the long run decline of profit, as described above was based on the negation of assumptions 1, 2, 6 and 7. As was shown in the earlier works of Marx, one of the essential contradictions of capitalist society was between prices and values. In failing to notice the transformation problem, Ricardo was confined within the limits of Say's Identity, for only where supply and demand were equal could value generally be equated with prices. The long run theory of Ricardo's had then nothing to do with the necessary disequilibrium conditions of
capitalist growth, or the declining rate of profit during periods of general overproduction. The reason for this was Ricardo's failure to examine capitalism as a system; as a structure the growth of which is predicated by the recurring unity of opposing forces. More fundamentally, as Marx said, Ricardo mystified the processes from within the sphere of production: 'the origin and nature of surplus value is not clearly comprehended...and the productivity of capital, the compulsion to perform surplus labour...are not recognised, and therefore the historical justification for capital is not set forth.'

Part of the problem concerns Ricardo's distinction between fixed (buildings, machinery, equipment) and circulating (materials, fuel, wage goods) capital. This categorisation is based on durability. an analysis of the sphere of circulation. Therefore, the capital-worker relation is hidden from view, in contradistinction to the differentiation of constant and variable capital, which relates embodied to living labour. Marx showed that it was embodied labour, constant capital, which Ricardo ignored in his definition of the rate of profit (which, according to assumption six, is shown as surplus value divided by wages). It follows directly from this problem that Ricardo's understanding of capitalism and accumulation was severely inhibited.

Although in Ricardo's theory fixed capital may increase at a greater rate than circulating capital over time, the value of the product is composed only of wages and surplus value. Under this scheme, a rising value of agricultural produce (corn) will certainly reduce the rate of profit (i.e., the rate of surplus value) (given subsistence conditions for workers). But the rate of profit is neither s/v nor s/(c+v). It is not surplus value over total capital since, generally, the rate of
profit is a variable from the price sphere. Since values and prices do not generally equate under conditions of disequilibrium in the labour power, commodity or money markets (either for the individual commodities or at the macroeconomic level), or where the ratio of constant to total capital is unequal throughout the economy, a rate of profit concept for the value scheme seems meaningless. Since this problem will be investigated more fully in chapter seven, it is convenient in this chapter to focus attention on the central issue made by Marx, and to leave this anomaly aside for the moment.

Ricardo's central problem was that his ignorance of constant capital in the determination of value compelled him to assume away two crucial components of the capitalist mode. The first was the specific abstract contradictions of the capitalist mode, and the second was the concrete predications of the mode which created continual movements of barrier-growth-barrier. The causal nature of real crises were then mystified by Ricardo, and the development of general overproduction was abstracted from.

Marx's theoretical apparatus, and an examination of historical tendencies, led him to believe that the growth of capitalism is consistent with the demise of precapitalist sectors of the economy.

Farms were seen as becoming more capital intensive, and therefore more productive with the progress of natural science. All forms of soil then have the capacity for becoming more productive with the growth of means of production and the employment of new technology. This is in the very nature of the capitalist forces, the accumulation of capital; but so is the periodic negation of these developments. Generally, the tendency was for the increased value of constant in
relation to total capital, and the increasing cheapness of commodities (aside from periods of overproduction).

Marx thought that rent became less important as capitalists controlled the production of primary production, and as capital developed with the competitiveness of industry. But the growth of capital becomes abstracted from the social relations upon which capital depends (as was noticed above), which means that it encounters fundamental limits to expansion. Hence periodic overproduction, and the tendency for the rate of profit to fall: but this is posited without the Ricardian syncretism. 'Overproduction does not call forth a constant fall in profit, but periodic overproduction occurs constantly. It is followed by periods of underproduction.'

The Theories represent the most detailed concrete investigation of crises written by Marx during the early-intermediate periods of his intellectual development. The fact that it coincided with an exhaustive analysis and criticism of Ricardian economics is no accident; as Marx said in a letter to Engels during the writing of the Theories,

I have long had misgivings concerning the absolute correctness of Ricardo's theory [of rent] and have finally tracked down this swindle ... Here you have - roughly, for the thing is rather complicated - the criticism of Ricardo's theory. This much you will admit, that attention to the organic composition of capital does away with a mass of what have seemed hitherto to be contradictions and problems.

This implies certain developments not incorporated within the framework of the Grundrisse, the latter of which failed to present a rigorous theory of the limitations of Ricardian analysis. It is also true that the concepts rate of profit, surplus value and the ratio of
constant to total capital were examined with a greater degree of clarity. For instance, the ratio of constant to total capital was first formally conceptualized in the *Theories* as the organic composition of capital. Marx was able to use this concept as a centrepiece for a criticism of Ricardo's theory of accumulation. This criticism enabled Marx to show that the 'very nature of capital leads to crises'.

The theoretical developments which originate from this study should be studied with a view to illustrating the new insights which Marx had into crises. This task shall now be undertaken, with the acknowledgement that Marx was more concerned with the changes over the range of the business cycle than long run decline. An attempt will then be made to reconcile this study with the conclusions made in chapter three.

### Abstract Possibilities and Form of Crises

Throughout this section it shall be assumed that:

1. The tendency is for the organic composition of capital to rise;
2. Extended reproduction takes place; i.e., surplus value is divided between consumption and investment;
3. The price of commodities need not equal their value;
4. There are two sectors of the economy: one producing means of production and the other producing consumer goods;
5. The economy is closed in the sense that there is no foreign trade.
6. There are two predominant classes: capitalists and workers;
7. Capitalist enterprise accords with the general laws of competition.

Marx thought that these conditions formed the basis of periodic crises.

Even when abstracting from credit, the general tendency of the major markets of the economy is towards disequilibrium: 'although the proportion of capital employed in individual spheres is equalised by a continuous process, the continuity of this process itself equally presupposes the constant disproportion which it has continuously, often violently, to even out.' Hence the results of the anarchy of
capitalist production, between the revolutionary nature of the forces of production and the relatively static production relations.

The "metaphysical equilibrium between buying and selling" was thought by Marx to be alien from capitalist commodity production - a point especially noted in the Excerpts and the Paris Manuscripts. The modern economy was not tantamount to a barter economy, since the introduction of money broke the decision to buy from the decision to sell. To assume the simultaneity of the processes was to assume the necessity of unity between opposites - to ignore the necessary disequilibrium which allows production to continue to grow after periodic crises. As Marx said: 11

There would be no crises without this inner unity of factors which are apparently indifferent to each other. But no, says the apologetic economist. Because there is this unity there can be no crises. Which in turn means nothing but that the unity of contradictory factors excludes contradiction.

The sophist school, then, denies the essential characters associated with the growth of the predominant commodity economy. As was realised on page 40, however, there are other more compulsive factors relating to money which increases the potential for disequilibrium throughout the economy. Money not only functions as a measure and medium of exchange, and a store of value, but also as a standard of deferred payment. The 'simple metamorphosis of commodities' is less peculiar to capitalism than 1) the predominant commodity economy, and 2) the extended role of credit. 12

Only in three places in the Grundrisse did Marx acknowledge the role played by credit in attempting to provide conditions where capitalist enterprise could transcend the limits imposed on it from within the
sphere of production. The importance of the Theories in this regard was to create a theoretical framework whereby the functions of money were related to the abstract possibilities of crises. In other words, the surface phenomena posit conditions which enable the contradictions of the mode to become manifest. The first of the abstract possibilities is the function of money as a medium of simple circulation - the first metamorphosis of commodities. This function provides the basis for the falling asunder of purchase and sale. And the second abstract possibility relates to the introduction of credit (means of payment); hence the further possible deviation between money as a measure and money as a realisation of value.14

If even for only a limited period of time the commodity cannot be sold then, although its value has not altered, money cannot function as means of payment, since it must function as such in a definite given period of time. But as the same sum of money acts for a whole series of reciprocal transactions and obligations here, inability to pay occurs not only at one, but at many points, hence a crisis arises.

What, then, is the relation between the two formal possibilities of crisis? First, a crisis can develop independently of the second possibility. Next, the second possibility cannot actualise without the first. And lastly, both formal possibilities need not proceed to form a crisis within a particular society; i.e., neither possibility actually predicates the development of crises. It is important to note, as was suggested in the above quote, that realisation problems presuppose the marked contradiction between values and prices, and the operation of at least the first formal possibility. But this contradiction is by no means purely a matter of circulation.

If neither abstract possibility is strictly peculiar to the capitalist
mode, then what forces determine the necessity of crises? According to Marx, 'crises arise out of the special aspects of capital which are peculiar to it as capital, and not merely comprised in its existence as commodity and money.' And further:

The general conditions of crises, in so far as they are independent of price fluctuations (whether they are linked with the credit system or not) as distinct from fluctuations in value, must be explicable from the general conditions of capitalist production... In investigating why the general possibility of crisis turns into a real crisis, in investigating the conditions of crisis, it is therefore quite superfluous to concern oneself with the forms of crisis which arise out of the development of money...

This quotation accords remarkably well with the methodological pattern analysed in chapter three. Here Marx states that one must distinguish between those characteristics which are common to more than one mode of production, and those which are particular. Money and credit are not peculiar factors, nor are they abstract universal in nature. In this sense they are not very important for analysing the commonalities of all modes of production, or for analysing the capitalist mode. However, the predominant money economy and the highly developed credit system are peculiar to capitalism, and are therefore very important. But the structure of money and credit operations must be based on more fundamental aspects of the mode, from within the sphere of production.

The notion of the mode presupposes the necessity to demystify surface phenomena. Hence, as Marx said, 'real crises' must be explained by the factors which compell crises to develop, those which make crises necessary. Real crises cannot be explained with reference to the form of crises, but can only be understood by the inner laws of motion, by
the abstract (peculiar) determination of the concrete tendencies of development. It is this factor which makes it imperative for discourse to proceed from the abstract (universal and peculiar), further and further along the concrete level of analysis. Crises, therefore, cannot be fundamentally understood without reference to the contradictions of the mode, and the laws of growth. As Marx said:

If one were to answer the question [of crises] by pointing out that the constantly expanding production ... requires a constantly expanding market and that production expands more rapidly than the market, then one would merely have used different terms to express the phenomenon which has to be explained - concrete instead of abstract terms.

The "abstract peculiar" explanation, as was noted above, is the major contradiction of the mode: 'the bourgeois mode of production contains within itself a barrier to the free development of the productive forces, a barrier which comes to the surface in crises and, in particular, in overproduction - the basis phenomenon of crises.' Something more innovative seems to be implied in the above quotation, and certain sections of the *Theories*: the development of an excess capital theory of crises. In other words, the law of value poses limits on the production of surplus value, with the growth of the productive forces, which reduces the desire of capitalists to invest in means of production and labour power. Here there is no question of the realisation of commodities, or the underconsumption of the masses, but the limit to investment eventually affects the labour, capital and commodity markets. "Underconsumption" and "realisation problems" then follow from the overproduction of capital, but they are not the central variable for analysis. The *Grundrisse* considers this in less precise terms; but this does not negate the conclusion that the *Theories* is consistent with (and a development of) the limits
stated in the *Grundrisse*. And although there is no model relating to the reduction of surplus labour time (as there was in the *Grundrisse*), it is clear that Marx realised in the *Theories* that forces within the sphere of production predicate the limits of development. The tendency of capitalist economy to expand reproduction, through increases in the organic composition of capital, is restricted by barriers to the production of surplus value. The driving force of development is therefore a limit itself: the capital-wage labour relation is both the basis and the barrier of production. This is implied in the fact that 'the majority of the producers...are non-consumers...of the means of production', and 'must always be overproducers, produce over and above their needs'.

The form of crises can only be studied at the surface level of inquiry (changes in profits, wages, interest, rent; demand and supply between departments; commodity prices). It was noticed in chapter two that Marx's articles and reviews published in the *Neue Rheinische Zeitung Revue* showed that both industrial and commercial business is affected by crises; the investigation related this to the form of crisis actually operating during the years 1846-48 in England. The theoretical development which occurred with the writing of the *Theories* related to an integrated analysis of the abstract, the concrete and the real levels of inquiry.

He showed, as was noticed above, that the abstract predication of crises is the primary concern. This presupposes an understanding of capitalism in the abstract (generally consistent with the description given in chapter three). The next stage is the development of a general theory of crises: the characters common to all crises which follow from
the operation of the predominant capitalist mode. And the last level of analysis specifies the form of crises possible as a result of the multifarious processes within a particular social formation.

The abstract determinations of the mode have been described above (chapter three; page 70). The concrete general laws of overproduction are as follows:

1. The general nature of the metamorphosis of commodities [as stated on page 68] instead of excluding the possibility of a general glut, on the contrary, contains the possibility of a general glut ...
2. For a crisis (and therefore also for over-production) to be general, it suffices for it to affect the principle commercial goods ...
3. Crises are usually preceded by a general inflation in prices of all articles of capitalist production. All of them therefore participate in the subsequent crash and at their former prices they cause a glut in the market. The market can absorb a larger volume of commodities at falling prices, at prices which have fallen below their cost-prices ...
4. The excess of commodities is always relative; in other words it is an excess at particular prices. The prices at which the commodities are then absorbed are ruinous for the producer's or merchant's rate of profit
5. Crisis is the forcible establishment of unity between elements that have become independent and the enforced separation from one another of elements which are essentially one.

It should be noted that there is no direct reference to the variables which enable the development of the upper turning point. This factor is implied in the very dialectics of the laws; the crisis provides the necessary conditions for further motivation on the part of the capitalists to invest. In other words, it reinstates the expectation of a sufficient profit. Since, however, the forces which promote the rate of profit are multifarious, point (5) covers this process at the general level of analysis. Nevertheless, this point is thought by the present writer to be too abstract for the development of concrete laws
which generalise surface phenomena of society.

The distinction between the generalisation and the particularisation of surface phenomena is especially important. Marx thought that theoretical political economy should be divorced from simple description of the 'real' operation of the economy. From this framework, the articles he wrote for the Neue Rheinische Zeitung Revue were far from a scientific presentation of political economy. The sort of things covered in that journal were of more concern for the method of inquiry: the study of the 'real' was necessary for an understanding of all facets of economic development. But presentation should accord with the development from the abstract to the concrete.

Since the Theories was not an attempt to develop a 'theoretical system of political economy', it is understandable that he studied general laws and forms of crises, which are ideally part of the most concrete component of any systematic theory of economics. At the same time he abstracted from the actual state of reality, surface phenomena, and therefore attempted to generalise as far as possible.

There are four forms of crises discussed in the Theories. The first three were less relevant to the essential inner laws of development. For instance, the first form is due to shortage of raw materials (caused by, for instance, harvest failure). Under these conditions, rising prices and reduced demand for labour power occur simultaneously, and the 'rate of profit falls because the value of constant capital has risen against that of variable capital and less variable capital is employed.'22 The fixed charges for rent and interest further reduce the rate of profit, and accelerates the disequilibrium between Departments I (means of production) and II (consumer goods).
The second form of crisis is due to an 'excessive portion of surplus-value' (profit) being invested in fixed capital. Here there is also a shortage of raw materials, although there was sufficient for the old level of production. This "disproportionate" conversion of capital into its various elements (fixed and circulating) results in a similar crisis to the first form.

Another form of crisis is "revolutions in the value of the variable capital", due to rising prices for the "necessary means of subsistence". These costs in turn may effect department one in the same sense that the first form of crisis produced chain bankruptcy across departments (from that which produces means of production to that which produces consumer goods).

The last form of crisis which Marx cited was that which results from the normal competitiveness of capitalist enterprise. Innovation which increases the profitability of a particular branch of the economy, results in the withdrawal of capital from other branches into the one with the higher rate of profit. Eventually, as more and more firms invest in the new technology, the average rate of profit tends to equalise throughout the economy; in the process of equalisation, however, crises may result from disequilibrium of the major markets of the economy, rising prices for labour power and commodities as speculative demand for money becomes (almost) absolute, and eventually collapse sets in. In this example

...when additional capital is produced at a very rapid rate [i.e., demand for the new technology] then its conversion into productive capital increases demand...to such an extent, that actual production cannot keep pace with it; This [eventually] brings about a rise in the price of all commodities, which enter into the formation of capital. In this case the rate of interest falls sharply...and this
...then leads to the most risky speculative ventures. The interruption of the reproductive process leads to the decrease in variable capital, to a fall in wages and in the quantity of labour employed. This in turn reacts anew on prices and leads to their further fall.

This statement adds a new specification to the overproduction theory of crisis cited earlier. Marx suggests that the capital development negates the very condition it was thought to promote, the production of greater surplus value, a higher rate of profit. The competitive process itself, and the rising wages for labour power, squeeze out profits, but the growth of cheap money motivates capitalists to invest. However, since the sphere of circulation cannot overcome the limits of production, the role of money as a means of circulation and means of payment eventually enable the contradictions of the mode, or overproduction, to reduce economic activity in the production process and in the commodity markets.

Again, as was suggested above, underconsumption and the problem of realisation become component parts of the effects of overproduction. The 'excess capital' theory of crisis is not developed at length, however, in the Theories, and some of the comments are entirely ambiguous. Something which was not ambiguous for Marx is the tendency for expanding capital on the world scale to exhibit 'the real concentration and forcible adjustment of all the contradictions of bourgeois economy'.

The reason for this is well specified, since the world market was thought by Marx to be 'the most complicated concrete phenomenon of bourgeois economy.' This is consistent with the allusion to the world market in the Manifesto, the Neue Rheinische and the Grundrisse, but in none of these works was this factor examined at great length. The Manifesto (and to a lesser extent the Grundrisse) related the world crisis to periodic and terminal forms. The Theories considered only the periodic,
Does the fact that Marx failed to specify the relation between the short and long run crises suggest that he dropped the earlier relation of the two? In answering this question it is necessary to specify the relation between methodological questions and the nature of the theories.

Reconciliation

Much of this present study is based on the relation of the Theoretic Whole with the theoretical evolution of Marx's thought. The Theoretic Whole was presented in its simplistic form as including the categories: (1) Capital; (2) landed property; (3) wage labour; (4) the State; (5) international trade; and (6) the world market and crises, as presented in the "Preface" to the Contribution. Much controversy surrounds what Marx's final anticipated work was supposed to be. One author, for instance, found that during the years 1856-63 there were over a dozen separate plans. This present study is less concerned with what Marx felt capable of completing during his lifetime, than what he considered the most desirable "theoretic whole". On this question there can be no doubt that he thought it desirable to commence with the abstract (universal and peculiar), and then proceed further and further to the concrete. Looked at from this view, it is possible to understand the eventual (though unfinished) structure of Capital; and that the above categories (2)-(6) were desirable components of the complete work (Theoretic Whole), should anyone wish to pursue them. Hence, the world market and crises is indeed the most concrete element of the contradictions of capitalist society possible to study (according to Marx).

Given this framework, and the philosophic system on which it was based, it seems obvious that a Marxian theory of the long run development of
capitalism must integrate the major tendencies of the mode with its most concrete elements. Since the Theories had a much less grandiose function, it is not surprising that the statements on the nature of crises at the level of the world market in that work were not related to terminal crises. The closest that Marx got to that in the section on Ricardo's theory of accumulation was his recognition of the geographic limit to capitalist penetration.

But that does not negate a possible relation between the periodic and the terminal crises. The usual statement presented by authors on Marxian economics in order to justify the claim that Marx lacked a theory which related to short to the long run crises, is as follows:

When Adam Smith explains the fall in the rate of profit from an over-abundance of capital, an accumulation of capital, he is speaking of a permanent effect and this is wrong. As against this, the transitory over-abundance of capital, over-production and crises are something different. Permanent crises do not exist.

Here Marx is negating the anachronistic theory of decline, which accords with Say's Identity. Marx's theory of periodic crises was not only based on a critique of Say's Law, but on a more fundamental understanding of the contradictions which emanate from the sphere of production. The notion of crises being permanent is certainly counter to the dialectical ontology and methodology. As was noticed throughout the latter part of chapter three, the structure of capitalist society presupposes change, contradiction, in the very laws of its development. Neither short or terminal crises would be permanent since, while the former pass into periodicity, the latter synthesise into the basis for a new mode of production.

Marx often analysed periodic crises divorced from any reference to the
secular or terminal forms. Such was the function of the method of abstraction, necessary for the simplification of the immediate task on hand. This was true of the analysis given to crises in the *Theories of Surplus Value*, the purpose of which was quite specific and delimited. Nevertheless, in many parts of the work Marx found it necessary to give attention to the determinate nature of capitalism. For instance:

The fact that bourgeois production is compelled by its own immanent laws, on the one hand, to develop the productive forces as if production did not take place on a narrow restricted social foundation, while, on the other hand, it can develop these forces only within these narrow limits, is the deepest and most hidden cause of crises, of the crying contradictions within which bourgeois production is carried on and which, even at a cursory glance, reveal it as only a transitional, historical form.

Over-production, the credit system, etc., are means by which capitalist production seeks to break through its own barriers and to produce over and above its own limits. Hence crises arise, which simultaneously drive it onward and beyond [its own limits] and force it to put on seven-league boots, in order to reach a development of the productive forces which could only be achieved very slowly within its own limits.

These statements are less explicit than some made by Marx in the *Grundrisse* and the *Manifesto*, but they do suggest two things. First, the contradictions of the mode predicate both periodic crises and terminal crises. Second, there is some more intimate relationship between the two, which is not well specified. The earlier 1857-58 manuscript also accorded with these two points, except that the second was specified somewhat more clearly. But, as compared with the earlier work (the *Manifesto* and the articles and reviews from *Neue Rheinische*) neither of the two major works written between 1857-63 emphasized the increased impoverishment of the proletariat (in a long run theory of capitalism). The exception was the allusion in the *Grundrisse* to the
increasing intensity of periodic cycles, which means that the recessional component of the cycle would reduce wages further and further below the value of labour power. However, it is also implied that, during inflationary times, wages would also rise further and further above the value of labour power. Little attention is given in both works on the "relative surplus population" peculiar to capitalism. The closest Marx came to a theory of immiserization in these works was the tendency for the necessary part of the working day to decline with the accumulation of capital; but this by no means equates with the increasing misery of the working class, unless misery is related to the relative tendencies of constant as against variable capital. Indeed, the reference to "social revolution" in the "preface" to the Contribution, while consistent with the analysis of the Grundrisse and the Theories, is by no means "proved" in a long run theory of growth. But, however, when this "apparent lack of proof" is related to the dialectical theory, and the Theoretic Whole, it is clearly given more credence and relevance.
A Methodological Apogee

As the above works have shown, Marx studied crises at all three levels of analysis. His journalistic writings are an excellent example of the study of surface (real) phenomena. The Theories gave good examples of crises investigated at the concrete level (with some reference to abstract crises). And the Grundrisse was especially rigorous with respect to abstract and concrete crises. A differentiation should be made between various levels of abstraction and concreteness. For instance, the concrete crises discussed in the Grundrisse were at a lower level of concreteness than the Theories. The Grundrisse was more concerned with a general theory of crises applicable both to periodic and terminal forms; while the Theories concentrated (where appropriate) on the general laws and forms of periodic crises. It can be said, however, that Marx failed to investigate crisis (or capitalism) at the level of total complexity (that which accorded with the completion of the Theoretic Whole). Since the desired form of presentation proceeded from the abstract further and further along the concrete path of investigation, the incomplete nature of this system certainly inhibited both an understanding of periodic crises, and the relation between the periodic and the terminal forms.

Capital was written with a conscious attempt to "hide" the method of investigation, to distinguish between the method of presentation and the method of inquiry. In the "Afterword to the second German Edition"
of Capital, Volume I, Marx said that

The latter has to appropriate the material in detail, to analyse its different forms of development, to trace out their inner connection. Only after this work is done, can the actual movement be adequately described.

Marx made reference to this as part of the dialectical method. But in what respect was he to accord with the method of presentation as cited from the Grundrisse - the Theoretical Whole. Apparently, Marx realised that the full presentation of this system was beyond the possibilities of the work able to be completed during his lifetime. Detailed specifications of landed property, wage labour, the State, international trade, plus the world market and crises, were therefore deleted from the actual form of presentation. The most concrete functioning of bourgeois economy was alien (from the point of view of theoretical rigour) from an examination of production, circulation and their unity, which formed the major substance of Capital. This did not negate the possibility of introducing some points relevant to these more concrete areas in discourse.

It follows from the form of Capital that crises could not be studied within the framework of the "unity of the diverse", the full complexities of the capitalist mode. There is another issue of methodology at stake, however: was Capital supposed to proceed in line with the dialectical method of presentation, from the abstract, further and further towards the concrete level of analysis? Some authors have answered this question in the negative. In relating the ideas presented in the "Introduction" to the Grundrisse to the form of presentation of Capital, this conclusion seems unjustified, for the following reasons.
The 1857-58 "Introduction", as shown in chapter three, proposed a method of discourse which proceeded from the abstract (universal and peculiar) to the concentration of the many determinations of the capitalist economy. Marx qualified this by suggesting that 'Capital is the all-dominating economic power of bourgeois society. It must form the starting point as well as the finishing point [of discourse]." How does this reconcile with Marx's practice in the Contribution and Capital of commencing with an examination of the commodity? This is answered by Marx himself in the "Notes on Adolph Wagner" (1879-80): 6

If we have to analyse the 'commodity' - the simplest economic concretum - we have to withhold all relationships which have nothing to do with the present object of analysis...For that reason, the definitions of 'capital' are not connected straight away with the analysis of the commodity, nor even with the discussion of its 'use-value', since it would have to be pure nonsense, so long as we are only at the stage of analysing the elements of the commodity.

This statement, and an examination of the first volume of Capital, clearly shows that the abstract universal is only useful to the method of presentation insofar as it enables the simple determinations of the capitalist mode to be discussed in (relative) isolation from the further complexities of its development. The commodity is not the "simplest economic concretum" of societies in general, but the simplest component of the capitalist mode. The universals such as labour, division of labour and value are only important insofar as they provide a framework for the development of a critical investigation of capitalist production, devoid (initially) of the more concrete predications of the mode.

These basic findings or conclusions are central to an understanding
of the role which Marx gave to crises in *Capital*. In this respect, the distinction made in the *Theories* between the "abstract possibility" and the "abstract necessity" of crises becomes important. The "abstract possibility" of crises in both works relate to the analysis of the commodity - the centrepoint of the introduction to *Capital*. As Marx said in the third chapter of the latter work, entitled; "Money, or the circulation of Commodities":

> all these antitheses and contradictions [between demand and supply, purchase and sale, use-value and exchange-value and abstract and concrete human labour], which are immanent in commodities, assert themselves, and develop their modes of motion...These modes therefore imply the possibility, and no more than the possibility, of crises. The conversion of this mere possibility into a reality is the result of a long series of relations, that, from our present standpoint of simple circulation, have as yet no existence.

Marx further states that, even when money is conceived in its role as the means of payment (credit), crises are still considered within the context of their abstract possibilities. This is consistent with the analysis of the *Theories*. In order to understand the conditions which form the "abstract necessity" of crises, Marx thought, it is necessary to study the laws of motion of capitalist production. In other words, it is necessary to become less abstract in analysis, to demystify the fetishism inherent in the obsession with commodities, and study the form of appropriation peculiar to the capitalist mode of production. It is to this level of abstraction from the surface phenomena of capitalist society to which this study must now proceed; that which is less abstract from the determinations of the mode, and more abstract from mere appearances. It is notable that this conception of crises is in accordance with the idea that capitalism represents the predominant commodity economy and the incessant exploitation of labour.
The Laws of Capitalist Economy

Marx attempted to develop knowledge of political economy, rather than a general philosophic theory of epistemology. His theory gave primacy to the economic, while it recognised the multifarious process of determination. The relation of knowledge to Being was such that the former should develop in order to approximate the structure and movement of the latter; but Marx thought that recognition of the nature of Being was essential for the final negation of the determinate mode of production. Hence the importance of the determining movements between base and superstructure in the shaping the forces and relations of production, and the diverse institutions and ideologies of society.

The object of Capital was the capitalist mode of production. Marx developed a theory which, he was sure, would explain the workings of the structure: the assimilation of the totality; the laws of its motion; the demystification of the forms of experience. More specifically, he sought to relate the diachronic to the synchronic: to investigate a long run theory of the workings of the structure, transformation and self-regulation of the whole. With the primacy given to the economic, Marx was able to devise (in line with his methodology) a set of conditions of capitalism, and to relate these conditions or laws to the notion of tendencies. It was crucial for this abstract-demystified theory to be consistent with the dynamics of particular capitalist social formations, actual forms of capitalism. In line with this understanding, he constructed four major laws in Capital, volume I, necessary for the transition from the abstract to the concrete. They included:
The constraints imposed by the law of value;
The Law of the tendency for the organic composition of capital to rise;
The law of the tendency of the centralisation and concentration of capital;
The law of relative surplus population peculiar to capitalism.

When investigating these laws Marx assumed the predominant capitalist mode, a closed economy, prices being determined by values, the operation of the general conditions of competition, and he abstracted from the sphere of circulation. It is presupposed in the first of these assumptions that the capitalist class has a monopoly in the ownership and control of the means of production, while the workers have only their labour power to sell on the market. (the "real" situation, with variable classes and conditions, is abstracted from).

The "law of value" is important since it shows that capitalist production is limited by the employment of labour power. Labour power is defined as 'the aggregate of those mental and physical capabilities existing in the human being, which he exercises whenever he produces a use-value of any kind.' Like every commodity, the value of labour power is determined, in Marx's theory, by the labour-time socially necessary for its production (and reproduction). But the inner dynamics of capitalism are dependent upon the greatest possible difference between the value of labour power, and the value created by labour power. In a word, it is dependent on exploitation.

In order to understand the notion of exploitation it is necessary to divide the total value produced (M) (of a commodity, a firm, a sector or an economy) by labour power into constant capital (c), variable capital (v) and surplus value (s) (see page 37):

\[ M = c + v + s \]
The rate of exploitation \( (r) \) is defined as surplus value divided by variable capital:

\[
(10) \quad r = \frac{s}{v}.
\]

Marx differentiated between two forms of increasing the rate of exploitation. Relative surplus value is that which results from the reduction in the necessary portion of the working day (see page 35). And absolute surplus value is determined by the prolongation of the working day.

In order to more fully understand these methods of increasing the rate of exploitation it is necessary to recognise the basic contradiction of the capitalist mode of production. The contradictory nature of the revolutionary growth of the forces of production and the relatively static social relations of production, creates severe limits to the development of capitalist economy. This was examined in some depth in chapter three with reference to the marginal surplus labour time. Although Marx does not repeat specific examples of the limitations to the marginal surplus labour time, it is clear that the limitations which he refers to in Capital, volume I, are tantamount to those described in the Grundrisse. In both works, the social relations between capital and wage labour become contrary to the further capitalisation of surplus value into embodied labour. This barrier, according to Marx, posits the tendency for the organic composition, centralisation and relative surplus population, to all systematically develop with the progress of competitive capitalism.

This barrier can only be conceptualised from within the sphere of production: devoid of the problem of the realisation of commodities, the surface forms of crises and the more concrete break up of surplus
value into profits, rent and interest. As Marx said in the introductory part of the most important Part VII of Capital, volume I:

...the simple fundamental form of the process of accumulation is obscured by the incident of the circulation which brings it about, and by the splitting of surplus-value. An exact analysis of the process, therefore, demands that we should, for a time, disregard all phenomena that hide the play of the inner mechanism.

Written within the confines of the application of the above quotation, Marx went on to say that

...the development of capitalist production makes it constantly necessary to keep increasing the amount of the capital laid out in a given industrial undertaking, and competition makes the immanent laws of capitalist production to be felt by each individual capitalist, as external coercive laws. It compells him to keep constantly extending his capital, in order to preserve it, but extend it he cannot, except by means of progressive accumulation.

In order to show the contradiction imbedded with the operation of the mode, it is useful to introduce an example. Consider a particular firm (Firm A) in the steel manufacturing industry. Initially assume a constant rate of exploitation (0.2) and organic composition of capital (C/(C+V) (0.545) throughout the industry. Assume further that Firm A produces 12 steel bars per day, and that their individual value (equal throughout the industry) is:

\[ 6c + 5v + 1s, \]

with the aggregate value of the commodities of Firm A being

\[ 72c + 60v + 12s. \]

Assume that only one firm in this industry (Firm A) increases the organic composition of capital (to 0.7), thus lowering the necessary
portion of the working day, and increasing the surplus component. This doubling of the productivity of labour and the forces of production produced an individual commodity value for Firm A of

\[ 6c + 2\frac{1}{2}v + 1\frac{1}{2}s, \]

and an aggregate value for the firm of

\[ 144C + 60V + 36S. \]

Under these conditions, Firm A is able to sell the steel bars for a value of 3 below the which the other firms sell for; since its share of the market consequently increases (it now sells 24 steel bars, instead of 12), the increase in relative surplus value has raised the rate of exploitation from 0.2 to 0.6. However, since other firms are likely to be motivated by the fact that they can either adopt the new technology, or be forced into bankruptcy, there is a tendency for the organic composition to become generalised throughout the economy. Eventually, then,

\[ \ldots \text{this extra surplus value } \text{[of Firm A]} \text{ vanishes, as soon as the new method of production has become general, and has consequently caused the difference between the individual value of the cheapened commodity and its social value to vanish.} \]

It follows from Marx's law of the determination of value by labour power, for the dialectical motion inherent in the development of competitive technological development to predicate periodic crises. The law which enables a few firms (in this example, only one firm) to produce surplus value, eventually creates conditions which denies it to them all. Hence the limit to further accumulation, the force which provides the necessity for periodic crises, the tendency for unemployment of labour power, destruction of values and centralis-
ation of capital. It is important to note the further development of the "excess capital" theory of crises, discussed in chapter four.

Marx's analysis in *Capital*, volume I, is methodologically consistent in ignoring the variable manifestations of crises. Its specific purpose was the study of exploitation, and the use made of surplus value in replicating the conditions of capitalist society. The inner movement of the operation of the law of value, was thought by him to be counter to the unlimited growth of capital, which necessitates periodic destruction and cataclysms. The tendency for the substitution of embodied for living labour compels the growth of disunity, and the ensuring crisis enables the further exploitation of labour, and the accumulation of capital, to be reinstated.

Intimately related to the major contradiction of the mode is the tendency for the development of the relative surplus population, according to the Marxist system of demystification. Since the competitive process explained above produces conditions which increase the demand for labour, wages rise, and the price of commodities in general also rise. The excess capital motivates the capitalist to reduce investment in productive capital, which produces unemployment of labour power and destruction of constant capital, and then the subsequent problems of realisation. Given this throughout the major industries of the economy, there becomes a generalized reduction of the demand for labour power, declining wages, and further unemployment. The tendency for the supply of labour power to generally outweigh its demand, is therefore the fulcrum upon which further capitalist accumulation depends. As Marx said:
The industrial reserve army, during the periods of stagnation and average prosperity, weighs down the active labour-army; during the periods of over-production and paroxysm, it holds its pretensions in check. Relative surplus population is therefore the pivot upon which the law of supply and demand of labour works. It confines the field of action to this law within the limits absolutely convenient to the activity of exploitation and to the domination of capital.

Marx's theory incorporated three basic components of the relative surplus population. First, there are the "floating" form of labour power, created from the obsolescence of former child labour. Second, the "latent", who have been forced out of agriculture due to the increasing centralisation of capital, but unable to get employment. This is true regardless of the "demand pull" nature of the centres of industry. Third, the "stagnant" component of the army are described by Marx as the direct products of adult immiserization within modern industry. Outside of this group is the lumpenproletariat - the "scum" of the proletariat, those disposed to disease and crime, the unemployable.

One of the major functions of the reserve army is the 'forcible reduction of wages beneath the value of labour power,...for the purposes of cheapening commodities', which is 'conditioned by the ebb and flow of the industrial cycle.' This is essential for the negation of periodic overproduction of capital, but, Marx goes on to say,

The greater the social wealth, the functioning capital...the centralisation of the means of production...the [greater] also the absolute mass of the proletariat and the productiveness of its labour, the greater is the industrial reserve army...The more intensive the...industrial reserve army, the greater is official pauperism. This is the absolute general law of capital-ist accumulation.
This theory is remarkably consistent with the statements of Marx in the Paris Manuscripts and the Manifesto, where the crises were thought to eventually get deeper and finally pass into the terminal form. Of course, the earlier works failed to provide a theory of exploitation, and specifications on the laws of tendency of capitalism, as was provided in Capital, volume I; but a degree of consistency between the works is obvious - more so if the analysis of the mode employed in the Poverty is taken into account. At the same time, there was no reference to absolute immiserization in the explicit sense of Capital given in the Grundrisse and the Theories. Nevertheless, the continuity of the works is evident. Grundrisse, while positing the eleven "counteracting" variables to the rate of profit, did present a theory which related the short and the long run development of capitalism. Proofs of decline were missing, however. The earlier and intermediate (note the "preface" to the Contribution) works, plus volume I of Capital all proposed the passing of the determinate mode into the infinite mode. It was the degree of proof which differed. The important point about Capital was the theoretically rigorous employment of laws of development. Is this, then, the basis of the theory of crisis presented by Marx: the laws of rising relative surplus population, organic composition of capital, and centralization of capital, in association with the barriers created from the law of value? It certainly formed the basis of the theory of finity:

Centralisation of the means of production and socialization of labour at last reach a point where they become incompatible with their capitalist integument. Thus integument is burst asunder. The knell of capitalist private property sounds. The expropriators are expropriated.

The answer to the question of periodic crises was only possible through further
Like all other laws, it is modified by the workings of many circumstances, the analysis of which does not concern us here. Rather, the laws are modified in relation to a more concrete examination of capitalism, to which the rest of Capital may provide the answers.
CHAPTER SIX
THE SPHERE OF CIRCULATION

The Metamorphoses and Circuits of Capital

An examination of Capital, volume I, revealed that Marx devised a method for demystifying market relations, to show their structural origins. This was done by descending from an analysis of the 'simplest concretum', the commodity, to an investigation of capital, the production of surplus value and the specific laws of capitalist development. Though at a high level of abstraction (from surface phenomena), he thought that the laws were the concrete determinations of the capitalist mode. They demonstrated the 'abstract necessity' of periodic crises, the effects of the barriers to accumulation which emanate from the sphere of production.

Marx found it necessary to proceed further to the more concrete operations of capitalism, by analysing in discourse the process of the circulation of capital. From the view of understanding crises, the circulation process is important for 1) illustrating the potential forms of crises; and 2) providing insights into the degree of justification of the issues raised in chapter five. It is useful to realise that, while Marx assumed that products exchange at their values, no revolutions take place in the forces of production, the rate of exploitation equals 100 percent, wages are at subsistence levels, there is no foreign trade, and that there is no change in the organic composition of capital in the two major sectors of the economy, much of his reference to crises in Capital, volume II, actually violate some of these assumptions (for obvious reasons).
As was shown in chapter three, the turnover period of capital includes the period of production plus the period of circulation. In this chapter, while the production process is recognised and conceptualized as a component part of the turnover period, the inner laws which Marx thought originated from production will be largely abstracted from, except where useful to illustrate a point. With the central question being the continuity of industrial capital, Marx identified three circuits of social capital: the circuits of money, productive and commodity capitals. These forms are identified by the following:

\[ \begin{align*}
M - C(L, MP) & \rightarrow P \rightarrow C' \rightarrow C' - M' \\
\text{I} & \text{II} \\
\text{III} & \\
\end{align*} \]

where I: is the circuit of money capital (M ... M')
II is the circuit of productive capital (P ... P)
III is the circuit of commodity capital (C' ... C')

C', M' designate C & M increased by surplus value (c,m)
L is the commodity called labour power
MP is the commodity called means of production
M - C is the act of buying
C - M is the act of selling

... indicate that the process of circulation is interrupted
C' - M' - C': is the total circulation process (shown also as Tc)

The circuit of money capital (M-C ... P ... C'-M') shows how labour power and means of production are purchased (M-C), with the aim of being productive of socially useful produce (...P...), and eventually realising for the capitalist surplus value in the act of selling (C'-M').

The circuit of productive capital (P ... C'-M'-C ... P') illustrates the process whereby the self-expanded value of commodities (C'), within the productive process, is used for future possible expansion after the commodities have themselves been sold (C'-M'), and after new labour power and means of production have been purchased (M'-C).
And the circuit of commodity capital \((C'\rightarrow M'\rightarrow C\rightarrow P\rightarrow C'\text{ or }Tc\rightarrow P\rightarrow C')\) shows the result of selling commodities \((C'\rightarrow M')\), converting the M component of \(M'\) into the employment of productive labour power \((M-C(L))\) and means of production \((M-C(MP))\), and producing commodities with a value higher than that of the inputs into the production process.

It should be clear from the nature of these social capitals that they are interrelated, and that continuity of the whole social circuit is a necessary condition for continuity of any single capital. At the same time, obstruction of any single capital results in a discontinuous total social capital. As Marx said:

Capital describes its circuit normally only so long as its phases pass uninterruptedly into one another. If capital stops short in the [money circuit] money capital assumes the rigid form of a hoard; if it stops in the [production circuit] the means of production lie without functioning on the one hand, while labour power remains unemployed on the other; and if capital is stopped short in the [commodity circuit] piles of unsold commodities accumulate and clog the flow of circulation.

He goes on to say that

If [this single discontinuity] lasts for some time, production is restricted and the entire process brought to a halt. Every stagnation in succession carries disorder into co-existence...The cycle of each functional form is dependent upon the others.

From the point of view of an examination of the process of circulation the analysis given by Marx to the interrelated social capitals is far in advance of anything developed in all of the earlier works. While in the Grundrisse and the Theories the distinction between the individual components of the circuit of social capital was made, it was not sufficiently developed so as to enable an analytic specification of the form and nature of the crises when the possibility turned
into a necessity. Of course, it is only the possibility of crises which is present in the simple circulatory process examined within the circulatory process; the same is true, as the *Theories* showed, when credit is examined. The circuit of social capital, therefore, allows for a complex formulation of these possibilities, although Marx himself in *Capital*, volume II, simply introduced the processes, devoid of the second abstract possibility of crises, and the more concrete characteristics of capitalist production which pose the necessity of periodic crises. He did, however, throughout discourse make abundantly clear that this was the case; and he alludes to the tendency for crises to take the form of "overproduction of capital", which is consistent with the laws of development discussed in chapter five, the limitations of capital described in the *Grundrisse*, and the analysis of the *Theories*. As he said:

(1) But it is clear that in spite of all the revolutions in value, capitalist production exists and can endure itself so long as capital is made to create surplus value, that is, so long...as the revolutions in value are overcome and equilibrated in some way. ...

(2) Then a crisis breaks out. It becomes visible not in a direct decrease of consumer demand, the demand for individual consumption, but in the decrease of exchange of capital for capital.

Here Marx is clearly suggesting that crises become visible initially in the form of hoards, in the circuit of money capital; the laws of surplus value impose limits on the desire of capitalists to accumulate, to invest in constant and variable capital. Only then does it affect the circuits of productive capital and commodity capital. From barriers to capitalist development the whole circuit of capital becomes disrupted, discontinuity occurs, that necessary for the recurring unity of capitalist production. In this sense, while every
crisis becomes a crisis of destruction of capital, unemployment of labour and unsold commodities, the principal stimulus to this process is restrictions to accumulation, excess accumulation of capital. A changed relation between capitalist and worker occurs, capital strives to reinstate the conditions necessary for its continuation, the exploitation of labour. 'But this relation has its foundation in the social character of production, not in the mode of exchange.'

The 'fundamental laws of production' cited in volume I of Capital, therefore, form the basis of the dynamics of capitalism. But for a more concrete examination of the 'system in motion', it is essential to consider other aspects of the circulatory process, and then study "capital in general" in its totality.

The Nature of Capitalist Circulation

Chapter five elaborated on various "laws" of capitalist development. Those "laws" were examined from beneath the surface of the functioning of circulation (the circulation period was assumed to be zero), and little reference was made to prices and profits. But for the "laws" to be applicable to actual situations and real crises, they must eventually pervade and affect the surface phenomena. This is precisely what Marx thought occurred. If, indeed, as Marx said, 'Political Economy sees only what is apparent, namely the effect of the time of circulation on capital's process of the creation of surplus value in general', and if, at the same time, they fail to investigate the "abstract necessity" for periodic crises, then it follows that the sphere of circulation itself poses no necessary barrier to capitalist production. This is what Marx tried to explain in part II of volume II of Capital, that crucial part of his work which most Marxist scholars
seem to have ignored.

The anticipated and realised rate of profit is a central variable affecting the motivation of capitalists to invest in productive capital. On the basis of the assumptions mentioned in the beginning of this chapter, the rate of profit \((P)\) is defined as surplus value divided by total capitals

\[(11) \quad P = \frac{s}{c + v}\]

or \(r(1 - g)\),

where \(r\) is the rate of exploitation and \(g\) is the organic composition of capital (defined above, pages 86 & 87). The annual rate of profit can be quite different from that cited above, since the period of turnover may deviate from one year. In order to incorporate this within the framework of the analysis, it is necessary to introduce the annual rate of surplus value \((r')\) equation,

\[(12) \quad r' = \frac{(rvQ)}{v}\]

or \(rQ\),

and an annual rate of profit \((P')\) equation,

\[(13) \quad P' = rQ(1 - g)\],

where \(Q\) is the number of turnovers during the time-period (in this case, one year), or the same as \(Q\) from page 44.

As was shown in chapter five, revolutions in the productivity of labour power are one means of increasing the value of \(Q\) (with the qualification noted in that chapter). This is relevant to the laws of the sphere of production; and, of course, under those conditions the value of \(g\) tends to increase, which diminishes its effectiveness.
It follows that, since the turnover period includes production and circulation phases, other influences on the annual rate of profit must come from circulation itself. Marx's position on this is clear, that the sphere of circulation cannot transcend the barriers imposed on the mode within the sphere of production. While the traditional costs of circulation, including the separation of the acts of purchase and sale, bookkeeping and the costs of storage, represent a definite limit to the rate of profit, and are unproductive costs; the costs of transportation are productive costs, and therefore become continually reduced through the general law of capitalist accumulation.

The transportation and communications industries are unusual in that they function 'as a continuation of a process of production within the process of circulation and for the process of circulation.' This illustrates the interrelatedness of the two major spheres, and the fact that, according to Marx, production is the dominating one. The general tendency of capitalist production to reduce the necessary portion of the working day reduces the costs of circulation; but this very process posits the necessity to expand the field of circulation.

With the limited scope of the internal market, expanded accumulation of capital forms the basis for and creates the world market. The first stage in the internationalisation of the capitalist market relations is the expansion of commodity capital, then money capital, and finally production capital. While Marx is not explicit on the third of these, he does state that the expansion does not realise more surplus value than is produced within the production process. There are five interrelated points to emphasize here. First, for Marx, it is the law of value which determines prices and profits in the last analysis. Therefore, changes in the turnover period which are
independent of that sphere, cannot have any overall effect on the realisation of surplus value. Second, surplus value and profits, and prices and values, when considered within the framework of the 'process of production as a whole, and upon the mass of commodities produced by the total industrial capital'\(^\text{14}\), are related so as to vindicate Marx's labour theory of value. Third, the workings of competition (see chapter five), while seemingly providing forces which surpass the limits imposed by the theory of value, are set fundamental barriers to accumulation of capital and the production of surplus value. While competition cannot determine the rate of profit consistent with perpetual 'golden age' growth, the laws of value seek to enforce a reduced general rate of profit. Fourthly, 'Capital exists as capital in actual movement, not in the process of circulation, but only in the process of production, in the process by which labour-power is exploited.' And since, for Marx, this exploitation process forms the genesis of capitalist accumulation and development, while surface appearances \textit{may seem to take on an existence all of its own, without in fact succeeding, the 'real science of modern economy only begins when the theoretical analysis passes from the process of circulation to the process of production.}'\(^\text{17}\)

With these principles in mind, Marx recognised the theoretical importance of analysing capital from the view of its reflection of the social relations of production. Instead of basing his theoretical system on the usual distinction between fixed and circulating capital (itself based on the degree of durability), he differentiated between constant and variable capital (see page 37). This new combination was formally incorporated into his schema only in the latter part of
Notebook III from the *Grundrisse* (1857-58). It was only in the *Theories* that the new conception of capital was used consistently for analytical purposes, and only with the writing of *Capital* did it fit into the the structure of a theory of exploitation, accumulation and crises.

The dichotomy 'fixed' and 'circulating' capital is synonymous with 'instruments of labour' (for instance, machinery and buildings) and 'subjects of labour' (including raw materials and auxiliary materials).

The former has value fixed in use form over an extended period, it depreciates relatively slowly; and the latter enters bodily into the product, and is thus entirely consumed in the single labour process. Of course, neither function as capital until they employed productively by the capitalist within the production circuit of social capital.

The distinction between constant and variable capital is crucial for an understanding of capitalist dynamics. Instead of being included in circulating capital, the value of labour power is given an independence all of its own as variable capital. This independence is only categorical, however, as the labour power is employed for the purpose of exploitation. Constant capital, including fixed capital plus raw materials, auxiliary materials and fuel and power, is nothing but embodied labour, since the value of labour is greater than the value of labour power, when the latter capital is used productively.

In short, while constant capital contributes to the value of commodities through depreciation, variable capital not only contributes its own value, an equivalent, but a surplus value. Since the tendency of capitalist development, according to Marx, is for the constant component of capital to rise in relation to the variable within the competi-
ive process, it follows that severe limitations on the rate of profit are created. This is true since, while the rate of exploitation may remain constant, a rising organic composition of capital reduces the motivation for capitalist accumulation. For instance, with a value of \( r \) of 100 percent, and with a value of \( g \) rising from 0.4 to 0.6, the rate of profit \( (r(1-g)) \) declines from 60 percent to 40 percent. As was illustrated in chapter three, this tendency becomes marked as the forces of production reduce the necessary component of the working day further and further.

If indeed the declining rate of profit is the fundamental motivation of capitalists to periodically reduce investment in labour power and means of production, it is necessary to give precise statements on the relationship between values and prices throughout the competitive process. So far Marx has not done this. For instance, the suggestion in the *Grundrisse* that the two domains balance over the full range of the business cycle has not been vindicated in the *Theories* or *Capital*. In the words of equations (11) - (13), Marx needs to be able to transform the (value?) rate of profit into the (price) annual rate of profit, to show that the sphere of production is actually dominant. It is also necessary to elucidate in more detail the "excess capital theory" of crises suggested throughout the first two volumes of *Capital*, on the basis of the tools of analysis developed there, which were less developed in the earlier work (the specified laws and the social capital). More importantly, from the view of the dynamics of crises, it is necessary to develop models dealing with both production and circulation over time. While "abstract crises" have been well specified by reference to the mode of capitalist production, "concrete crises" must necessarily be understood with reference to
the more concrete levels of analysis. For instance, throughout the whole of his political economic writings during the period 1847-83, Marx suggested that crises at the world market level represent the most forcible and dynamic establishment of unity of capitalist production examinable. It is therefore desirable that this be illustrated as the most concrete component of a series of concrete models, within the whole sequence of moving from the abstract to the concrete. More generally, as one author has shown, there are five necessary conditions for a Marxist theory of exploitation: (1) a definition of exploitation; (2) a theory of demystification; (3) a statement on the reason for a positive rate of exploitation in the long run; (4) a theory of long run equilibrium conditions of equilibrium; and (5) a set of verifiable theoretical conditions (or predictions) about long run tendencies of capitalism. While the first three of these have been reasonably well elucidated in the works written after the 1840's, from the point of view of crisis theory it is essential that the last two points be developed in more detail. While the first two volumes of Capital provided an important framework for such an analysis, the next chapter will examine the degree to which this long run theory was developed in Capital volume III.
CHAPTER SEVEN
CAPITALIST PRODUCTION AND CIRCULATION AS A WHOLE

The Reproductive Schemes

In the latter part of Capital, volume II, Marx illustrated the process of unity between production and circulation, through the construction of the reproductive schemes. In the Grundrisse, it should be remembered, Marx referred to crises as being the forcible establishment of unity between production and consumption. It would seem from these relations that the reproductive schemes illustrate the operation of an "abstract" capitalist economy, devoid of crises. The questions which remain include: is there a "contradiction" between or within the schemes? If so, how is it resolved? How do these problems relate to the development of a more concrete model of capitalist crises? Before these problems can be solved, it is necessary to consider the structure of the schemes.

The schemes of simple reproduction were based on the following assumptions:

1. Products exchange at their values;
2. No revolution in the values of productive capitals takes place;
3. There is no net investment; all surplus value is "consumed";
4. There are three departments of the economy: (1) means of production, (2) consumer goods - wage goods; (3) luxury goods.
5. There is no change in the organic compositions of capital in all departments; (although there may be inequality between departments);
6. Capitalists exploit labour at a rate of 100 percent in all departments;
7. Capitalists pay for labour power after it has produced use-values;
8. The economy is closed in the sense that there is no foreign trade.

Due to a high degree of interdependence between sectors, the value structure, supply and demand and the productive nature of the capitals can be shown as follows;
The rows of the first matrix show that the value component of the produce of each department is made up of constant (C) and variable (V) capitals, plus surplus value (S). The second (supply) matrix shows that the means of production, consumer goods and luxury goods are produced in the respective sectors: i.e., all constant capital is produced in department I \((C_1, C_2, C_3)\); all the wage goods (necessities for life) are produced by department II \((V_1, V_2, V_3)\); and all the luxury goods are produced in department III \((S_1, S_2, S_3)\). And the demand matrix shows that constant capital \((C)\) produced in sector 1 is demanded by all sectors \((C_1, C_2, C_3)\), the consumer-wage goods \((V)\) produced in department 2 are demanded by all sectors \((V_1, V_2, V_3)\), and luxury goods produced in sector 3 are demanded in all sectors \((S_1, S_2, S_3)\). Matrix four illustrates that productive capitals \((C, V)\) are employed in all departments in order to reproduce a "constant quantity of value", devoid of growth (matrix five). Obviously, \(C_1\), \(V_2\) and \(S_3\) are employed in the same sector in which they were produced. Equilibrium conditions necessary for supply to equal demand include:

\[
\begin{align*}
C_1 + V_1 + S_1 &= C_1 + C_2 + C_3 \\
C_2 + V_2 + S_2 &= V_1 + V_2 + V_3 \\
C_3 + V_3 + S_3 &= S_1 + S_2 + S_3
\end{align*}
\]

or, if like terms are eliminated:

\[
\begin{align*}
V_1 + S_1 &= C_2 + C_3 \\
C_2 + S_2 &= V_1 + V_3 \\
C_3 + V_3 &= S_1 + S_2.
\end{align*}
\]
For the extended reproduction schemes, Marx dropped assumptions 2 and 3 (page 104), and introduced the assumption that some portion of surplus value is capitalised, invested in the constant and variable components of capital in all sectors. Surplus value \((S)\) is divided as an addition to the constant capitals \((\Delta C'_1)\), the variable capitals \((\Delta V'_1)\), the personal consumption of the capitalists \((\Delta U'_1)\); plus that to maintain capitalist consumption at the level of the previous period \((U'_1)\). It is important to note that there is no technical change, the supply of labour power is perfectly elastic at subsistence levels, employment increases at the same rate as constant capital, and there are constant returns to scale in all departments. According to the extended reproduction schemes, the relevant matrixes are:

1st Production Year:

\[
\begin{align*}
C_1' & V_1' S_1' \\
C_2' & V_2' S_2' \\
C_3' & V_3' S_3'
\end{align*}
\]

Supply

\[
\begin{align*}
C_1' & V_1' C_2' & C_3' \\
V_1' & V_2' & V_3' \\
S_1' & S_2' & S_3'
\end{align*}
\]

Demand

\[
\begin{align*}
C_1' & V_1' S_1' \\
C_2' & V_2' S_2' \\
C_3' & V_3' S_3'
\end{align*}
\]

Productive

\[
\begin{align*}
C_1' & V_1' \\
C_2' & V_2' \\
C_3' & V_3'
\end{align*}
\]

2nd Production Year:

\[
\begin{align*}
C_1'' & V_1'' S_1'' \\
C_2'' & V_2'' S_2'' \\
C_3'' & V_3'' S_3''
\end{align*}
\]

Production

\[
\begin{align*}
C_1'' & C_2'' & C_3'' \\
V_1'' & V_2'' & V_3'' \\
S_1'' & S_2'' & S_3''
\end{align*}
\]

Re-arrangement

\[
\begin{align*}
C_1'' & V_1'' S_1'' \\
C_2'' & V_2'' S_2'' \\
C_3'' & V_3'' S_3''
\end{align*}
\]

Circulation

\[
\begin{align*}
C_1'' & V_1'' \\
C_2'' & V_2'' \\
C_3'' & V_3''
\end{align*}
\]

Renewal

For the expanded values ('') to be in equilibrium between supply and demand, the following conditions must hold:

\[
\begin{align*}
C_1' & + V_1' & + S_1'' = C_1' & + C_2' & + C_3' \\
C_2' & + V_2' & + S_2'' = C_1' & + C_2' & + C_3' \\
C_3' & + V_3' & + S_3'' = S_1'' & + S_2'' & + S_3''
\end{align*}
\]

Marx's purpose throughout the study of the reproductive schemes has been misinterpreted by some writers. When considered in association with the method of proceeding with discourse from the abstract to...
the concrete, the purpose of the reproductive schemes seems obvious. It is necessary to study the workings of the aggregate social capital, equilibrium conditions and the interrelations of the sectors, before the question of disequilibrium can be posed. It is for this reason that:

...[all] departments miraculously seem to be able to realise surplus value and total capital by selling to each other for ever and ever. There is no realisation problem, no monetary crisis, no break in accumulation

In the sense of creating a model of accumulation with the accent on the smooth workings of an idealised capitalist economy, Marx's extended reproduction model is very similar to Walras' model of capitalisation. Their models of simple reproduction also resembled each other closely. But to leave matters there would be to ignore the different purpose of Marxist and Walrasian economics. Whereas Walras' objective was to develop the science of 'pure economics' - 'the theory of the determination of prices under a hypothetical regime of perfectly free competition' - Marx set out to demystify the surface phenomena of capitalism, expose the fundamental workings of the predominant commodity economy, to develop a more 'concrete' theory of its functioning. The differences between the pure and the political economics emanate not only from the Marxist theory of exploitation, but also from the long run specification of exploitation within a structure predisposed to the incessant accumulation of capital.

Given this framework, how did Marx relate the schemes to the periodic or secular development of crises? The answer to this question is that he failed to give specific examples of the operation of the schemes within the concrete development of a theory of crises. It would seem,
then, that there are contradictions between volume II of *Capital* and Marx's "laws" of development as cited in volume I. In view of the purpose of the reproductive schemes, the fact that the 'conditions of operation' must be developed prior to 'conditions of disequilibrium and crisis', this supposed 'contradiction' does not seem justified.

Indeed, the assumptions of volume II are counter to the development of a theory of crisis. Nevertheless, as with most of Marx's work, he constantly and momentarily transcends assumptions in order to suggest the degree of deviation of the model from the reality of capitalist development. As Marx said relating to the above equilibrium conditions:

...conditions...change into so many conditions of abnormal movement, into so many possibilities of crisis, since a balance is itself an accident owing to the spontaneous nature of this production.

Throughout this study, possibilities of crisis have been within the context of the operation of money as 1) a means of circulation; and 2) a means of payment (credit). But what forces turn the possibility of crisis into a necessity? For Marx, as has been emphasized especially in chapters three, four and five, it relates to the need for an incessant production of surplus value in association with the operation of the predominant commodity economy. More particularly, it is determined by the operation of the major contradiction of the mode. It was to be the function of *Capital*, volume III, to relate the necessities (sphere of production) to the possibilities (sphere of circulation), to illustrate the interrelation of these spheres at a more concrete level of analysis of capitalism. Hence, to find any possible answers to the question of disequilibrium between the major sectors of the economy, it is necessary to closely investigate the third volume of *Capital*. 
The Tendency of the Rate of Profit to Fall

In volume III of Capital, Marx investigated the relation between the surface and the demystified aspects of capitalist society. He studied the price and the value forms as separate (though connected) phenomena, whereas the first two volumes of Capital had assumed that prices were equal to values (although some deviation from this assumption was made for reasons of qualification). Since Marx stated in the Excerpts, the Poverty of Philosophy, the Theories and especially the Grundrisse that crises were periods of extreme disproportion between values and prices, an analysis of the transformation would seem indispensable in an analysis of crisis at the concrete level of investigation. This is true regardless of the fact that the determination of crises need not consider the problem at all - since abstract crisis arise from the peculiar contradictions of the capitalist mode (as Capital, I, and the Grundrisse clearly showed).

Volume III of Capital also attempted to qualify the "laws" of development elucidated in volume I; and the major emphasis in this regard was on the falling tendency of the rate of profit. Both the problem of transformation and the falling rate of profit were situated within the framework of a competitive predominant capitalist economy.

Marx tautologically illustrated the idea of the falling rate of profit by the following example. Assuming that (1) the rate of exploitation is 100 percent; (2) the working day is constant; (3) there are no problems of realization; (4) the tendency is for the organic composition of capital to rise; Marx then presented five different situations - viz:
\[
\begin{array}{cccccc}
<table>
<thead>
<tr>
<th>t</th>
<th>C</th>
<th>V</th>
<th>S</th>
<th>g</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>50</td>
<td>100</td>
<td>100</td>
<td>.333</td>
<td>1</td>
<td>.666</td>
</tr>
<tr>
<td>t+1</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>.5</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>t+2</td>
<td>200</td>
<td>100</td>
<td>100</td>
<td>.666</td>
<td>1</td>
<td>.333</td>
</tr>
<tr>
<td>t+3</td>
<td>300</td>
<td>100</td>
<td>100</td>
<td>.75</td>
<td>1</td>
<td>.25</td>
</tr>
<tr>
<td>t+4</td>
<td>400</td>
<td>100</td>
<td>100</td>
<td>.8</td>
<td>1</td>
<td>.2</td>
</tr>
</tbody>
</table>
\end{array}
\]

where \( g \) = the organic composition of capital \((C/(C + V))\);  
\( r \) = the rate of exploitation \((S/V)\);  
\( P \) = the rate of average profit for the economy \((r(1-g))\).

If this example is considered as a movement through time, long term changes from \( t \) to \( t+4 \), it can then be conceptualised as a tendency, a law of capitalist development. As Marx said:

The progressive tendency of the general rate of profit is, therefore, just an expression peculiar to the capitalist mode of production of the progressive development of the social productivity of labour.

For some time now this "tendency" has been subject to the literal interpretation - an actual and progressive decline - devoid of the qualifications Marx introduced in later chapters of Capital, III.

This situation has now changed somewhat. In the chapter entitled, "Counteracting Influences", Marx listed six factors which he thought would 'cross and annul the effect of the general law, and which give it merely the characteristic of a tendency.'

1 Increasing intensity of exploitation - prolongation of the working day, 'speed-up and stretch-out' techniques, etc.
2 Depression of wages below the value of labour power (which belongs to an analysis of competition).
3 Cheapening of constant capital (which lowers the costs of production).
4 Relative over-population (creates more labour-intensive industries).
5 Foreign trade permits cheaper raw materials and necessities to be utilised in the production process than would otherwise be the case.
At the end of this chapter, Marx stated:

We have just seen in a general way that the same influences which produce a tendency in the general rate of profit to fall, also call forth counter-effects, which hamper, retard, and partly paralyse this fall. The latter do not do away with the law; but impair its effect. Otherwise, it would not be the fall of the general rate of profit, but rather its relative slowness, that would be incomprehensible. Thus, the law acts only as a tendency. And it is only under certain circumstances and only after long periods that its effects become strikingly pronounced.

In the very next chapter, the "Exposition of the Internal Contradictions of the Law," Marx argues that the fall in the rate of profit is a dialectical phenomenon, which calls forth periodic limits to capitalist production; its fall checks the formation of new independent capitals and thus appears as a threat to the development of the capitalist production process. It breeds overproduction, speculation, crises, and surplus capital alongside surplus population. On the one hand, a falling rate of profit appears as a periodic limit; and, on the other hand, like the theory of the determinate mode from the Grundrisse, it is somehow related to the demise of the capitalist system. On the latter theory Marx said in Capital, volume III:

Those economists, therefore, who, like Ricardo, regard the capitalist mode of production as absolute, feel at this point that it creates a barrier itself, and for this reason attribute the barrier to Nature (in the theory of rent), not to production. But the main thing... is that capitalist production meets in the development of its productive forces a barrier which has nothing to do with the production of wealth as such; and this peculiar barrier testifies to the limitations and to the merely historical, transitory character of the capitalist mode of production;...at a certain stage it rather conflicts with its further development.

There is no doubt that the falling rate of profit tendency relates,
for Marx, to the periodic development of crises and the long run fall due to the negation of some of the "counteracting variables". Here, it should be emphasized, there is a marked advancement from the *Grundrisse*, which did not specify the precise nature of the tendency, and from the *Theories*, which was concerned with periodic crises, rather than with a long run theory of capitalism. But to what extent did Marx give proofs of the relationship between the short and the long run crises? For answers to this question it is necessary to examine his theory of periodic crises in detail.

Marx's theory of the periodic falling rate of profit assumes the operation of a competitive capitalist economy. The fact that no capitalist introduces a new method of production if it entails a lower rate of profit than previously obtained is strongly emphasised. However, with the operation of competition, the rising organic composition of capital raises the rate of profit, and it is only when the new method is generally adopted that the rate of profit of the innovating firm is reduced. To illustrate this point, assume that

(1) there are six plants in the steel industry, (2) a revolution in the methods of production occurs which has not yet become generalised, (3) organic compositions differ within the industry, (4) the motive of the capitalists is short-term profit, and (5) the rate of surplus value is equal throughout the industry. Under these conditions the following situation obtains:

<table>
<thead>
<tr>
<th>Plant</th>
<th>(c_i)</th>
<th>(v_i)</th>
<th>(s_i)</th>
<th>(M_i)</th>
<th>(\bar{p}_i)</th>
<th>(r_i)</th>
<th>(g_i)</th>
<th>(N_i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>70</td>
<td>30</td>
<td>30</td>
<td>130</td>
<td>30</td>
<td>100</td>
<td>.7</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>60</td>
<td>40</td>
<td>40</td>
<td>140</td>
<td>40</td>
<td>100</td>
<td>.6</td>
<td>12</td>
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<tr>
<td>3</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>150</td>
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<td>.5</td>
<td>10</td>
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<tr>
<td>4</td>
<td>40</td>
<td>60</td>
<td>60</td>
<td>160</td>
<td>60</td>
<td>100</td>
<td>.4</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>30</td>
<td>70</td>
<td>70</td>
<td>170</td>
<td>70</td>
<td>100</td>
<td>.3</td>
<td>6</td>
</tr>
</tbody>
</table>
where: \( c_i \) = constant capital of \( i; \) \( \bar{P}_i \) = (value) rate of profit for \( i; \)

\( v_i \) = variable capital of \( i; \) \( r_i \) = rate of exploitation for \( i; \)

\( s_i \) = surplus value of \( i; \) \( \epsilon_i \) = organic composition for \( i; \)

\( M_i \) = total value of \( i; \) \( N_i \) = number of commodities for \( i; \)

\( i = \text{firm } 1, 2, 3, 4 \text{ or } 5. \) Note: \( c, v, s, \epsilon \) not industry totals.

Since commodities are sold at their average prices of production, rather than their values, the former must be calculated:

<table>
<thead>
<tr>
<th>Plants</th>
<th>( M_i/N_i )</th>
<th>( u_i )</th>
<th>( \bar{P} )</th>
<th>( N_i )</th>
<th>( X_i )</th>
<th>( K_i )</th>
<th>( P_i )</th>
<th>( P_i^{*} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>130/14</td>
<td>9.3</td>
<td>15</td>
<td>14</td>
<td>210</td>
<td>100</td>
<td>110%</td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>140/12</td>
<td>11.6</td>
<td>15</td>
<td>12</td>
<td>180</td>
<td>100</td>
<td>80%</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>150/10</td>
<td>15.0</td>
<td>15</td>
<td>10</td>
<td>150</td>
<td>100</td>
<td>50%</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>160/8</td>
<td>20.0</td>
<td>15</td>
<td>8</td>
<td>120</td>
<td>100</td>
<td>20%</td>
<td>-30</td>
</tr>
<tr>
<td>5</td>
<td>170/6</td>
<td>28.3</td>
<td>15</td>
<td>6</td>
<td>90</td>
<td>100</td>
<td>-10%</td>
<td>-60</td>
</tr>
</tbody>
</table>

where \( u_i = M_i/N_i; \) \( K_i = \text{cost of production; } \)

\( \bar{P} = \text{average price of production } \) \( P_i = \text{(modified) profit rate } \)

\( X_i = \text{total revenue (selling price) } \) \( P_i^{*} = \text{surplus profit} \)

If it is assumed that the existing firms in the industry adopt the new technique to varying degrees, since they cannot compete with the lower price of the leading industry, then the new value scheme becomes:

<table>
<thead>
<tr>
<th>Plant</th>
<th>( c )</th>
<th>( v )</th>
<th>( s )</th>
<th>( M_i )</th>
<th>( \bar{P} )</th>
<th>( r_i )</th>
<th>( \epsilon_i )</th>
<th>( N_i )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>70</td>
<td>30</td>
<td>30</td>
<td>130</td>
<td>30%</td>
<td>100%</td>
<td>.7</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>70</td>
<td>30</td>
<td>30</td>
<td>130</td>
<td>30%</td>
<td>100%</td>
<td>.7</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>65</td>
<td>35</td>
<td>35</td>
<td>135</td>
<td>35%</td>
<td>100%</td>
<td>.65</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>60</td>
<td>40</td>
<td>40</td>
<td>140</td>
<td>40%</td>
<td>100%</td>
<td>.6</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>60</td>
<td>40</td>
<td>40</td>
<td>140</td>
<td>40%</td>
<td>100%</td>
<td>.6</td>
<td>12</td>
</tr>
</tbody>
</table>

Again, these figures must be transformed into the mystified price scheme.
This example shares the same problem as that which Marx constructed
when attempting to "answer" the transformation problem: the prices
of the inputs in the price scheme are in their value forms. Nevertheless, the example is useful for illustrating the essential processes
and explicating the problem as verbally stated by Marx. It should
be noticed that the general implementation of the new technique
throughout the industry as a whole, while necessary to the forces
of competition, result in a reduced average rate of profit. When
this is considered with the tendency for other firms from different
industries to move into sectors with higher than the average
macroeconomic rate of profit, the example above would be magnified
in effect. The more general the technique with the higher organic
composition of capital, and the greater the number of firms adopting it,
the lower the subsequent general rate of profit for that industry.
Under these conditions, the leading firm cannot abstract from the
law of value for very long, which means that its leading position
is countered by the forces of competition. And the tendency for firms
to increase the organic composition thus results in a lower incentive
to invest in productive capital.

How does this relate to the development of a general crisis? To
illustrate one possible case, using the reproductive schemes developed
in volume II of Capital, assume that the organic composition for the

<table>
<thead>
<tr>
<th>Plants</th>
<th>M_1/N_1</th>
<th>u_i</th>
<th>P_i</th>
<th>N_i</th>
<th>X_i</th>
<th>K_i</th>
<th>P_i</th>
<th>P^k_i</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>130/14</td>
<td>9.3</td>
<td>10.39</td>
<td>'14</td>
<td>145.4</td>
<td>100</td>
<td>45%</td>
<td>+10</td>
</tr>
<tr>
<td>2</td>
<td>130/14</td>
<td>9.3</td>
<td>10.39</td>
<td>'14</td>
<td>145.4</td>
<td>100</td>
<td>45%</td>
<td>+10</td>
</tr>
<tr>
<td>3</td>
<td>135/13</td>
<td>10.4</td>
<td>10.39</td>
<td>'13</td>
<td>134.9</td>
<td>100</td>
<td>35%</td>
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</tr>
<tr>
<td>4</td>
<td>140/12</td>
<td>11.6</td>
<td>10.39</td>
<td>'12</td>
<td>124.6</td>
<td>100</td>
<td>25%</td>
<td>-10</td>
</tr>
<tr>
<td>5</td>
<td>140/12</td>
<td>11.6</td>
<td>10.39</td>
<td>'12</td>
<td>124.6</td>
<td>100</td>
<td>25%</td>
<td>-10</td>
</tr>
</tbody>
</table>
three departments are: \( g_1 = 5/6; \) \( g_2 = 3/4; \) and \( g_3 = 1/2. \) With the equilibrium conditions being obtained the scheme is shown as:

\[
\begin{align*}
\text{I} & \quad 5000c_1 + 1000v_1 + 1500s_1 = 7500M_1 \\
\text{II} & \quad 1500c_2 + 500v_2 + 500s_2 = 2500M_2 \\
\text{III} & \quad 1000c_3 + 1000v_3 + 500s_3 = 2500M_3 \\
\end{align*}
\]

\[7500C + 2500V + 2500S = 12500M\]

Using the Bortleiwicz transformation procedure the value system proves to be identical with the price system. With department III being the numeraire, increasing the organic compositions to \( g_1 = 6/7; \) \( g_2 = 4/5; \) and \( g_3 = 2/3 \) produces the following result throughout the economy:

\[
\begin{align*}
\text{I} & \quad 5142c_1 + 858v_1 + 1500p_1 = 7500\bar{P}_1 \\
\text{II} & \quad 1600c_2 + 400v_2 + 500p_2 = 2500\bar{P}_2 \\
\text{III} & \quad 1333c_3 + 666v_3 + 500p_3 = 2500\bar{P}_3 \\
\end{align*}
\]

\[8075C + 1924V + 2500p = 12500\bar{P}\]

where: \( p_1 = \) average profit for \( i; \) \( \bar{P}_1 = \) price of production.

Under these conditions, and for simplicity assuming conditions of simple reproduction, there is disequilibrium between departments I and II. In department I, the demand for means of production (8075C) is greater than the supply (7500\( \bar{P}_1 \)); and for department II, the supply of means of subsistence (2500\( \bar{P}_2 \)) is greater than the demand (1924V). In other words, the fundamental equation of equilibrium is disrupted such that

\[
\begin{align*}
c_1 + v_1 + s_1 & \neq c_1 + c_2 + c_3 \\
c_2 + v_2 + s_2 & \neq v_1 + v_2 + v_3.
\end{align*}
\]
The result of this disequilibrium is a set of market prices where:

\[
\begin{align*}
I & \quad 5142c_1 + 858v_1 + 2076P_1 = 8075X_1 \\
II & \quad 1600c_2 + 400v_2 - 76P_2 = 1924X_2 \\
III & \quad 1333c_3 + 666v_3 + 500P_3 = 2500X_3 \\
\end{align*}
\]

\[
8075C + 1924V + 2500P = 12500X
\]

Whereas for the original scheme the average rate of profit was equal throughout the economy (for each sector), the result of disequilibrium is a 40.37\% rate for sector I, -3.8\% for sector II and an unchanged 25\% for sector III. Similar to the example of the competitive process from chapter five, as firms move into sector three to produce means of production, due to the high rate of profit, the rate of profit from that sector would begin to decline. In the process, however, it is likely that the crisis of sector two would also affect the leading sector, through reduced demand for means of production; while the firms newly investing in sector I may (1) be financed by credit arrangements, and (2) increase the demand for labour power and means of production relevant to the new technology, consequently increasing their prices. The exact multi-sectoral affect of the disequilibrium depends on the extent of cheap money, the price of labour power, and the precise relation between money, production and commodity capital. Leaving these factors aside for the moment, Marx realised that the competitive process, and the inter-sectoral relations, provided means for the contradictions of the mode to predicate general crises of overproduction. As he said:

...the competitive struggle...would begin because the fallen rate of profit and overproduction of capital originate from the same conditions...[In times of crisis, the competitive struggle would decide what part of [capital] would be particularly affected....
So long as things go well, competition effects an operating fraternity of the capitalist class, as we have seen in the case of the equalisation of the general rate of profit, so that each shares in the common loot in proportion to the size of his respective investment. But as soon as it no longer is a question of sharing profits, but of sharing losses, everyone tries to reduce his own share to a minimum and to shove it off upon another. The class, as such, must inevitably lose. How much the individual capitalist must bear of the loss...is decided by strength and cunning, and competition then becomes a fight among hostile brothers. The antagonism between each individual capitalist's interests and those of the capitalist class as a whole, then comes to the surface....

Marx himself failed to utilize the reproductive schemes in his examples of crises; instead, he used the three major circuits of social capital (described in chapter six), which can more generally relate to all three departments. Nevertheless, the above example of the competitive process, and disequilibrium between sectors, is something which he does verbally consider. In order to explain Marx's theory of crises from volume III of Capital more fully, it is necessary to illustrate the major contradictions which operate within the framework of the competitive process just outlined. In doing so, it should be noticed, the argument necessarily becomes more concrete; this is especially true with the breakup of surplus-value into interest and profit, and the differences between money capital and real capital.

**Periodic Limits to Capital Accumulation**

In chapter XV to Capital, III, Marx studied in detail the fundamental contradictions within capitalist production. The major one is between the expansion of production and the production of surplus value (as a reflection of the major contradiction of the mode). On this point Marx is consistent with the theoretical apparatus developed in the
Grundrisse (chapter three). With the rising organic composition of capital associated with technical progress within a particular industry (or a number of industries), the necessary portion of the working day declines relative to the surplus portion. And while some industries benefit in the short run, in the longer-run the rising composition of capital creates a general reduction in the average rate of profit (as illustrated in the above examples). This is true since, while the surplus portion has increased, the number of variable capitals which the surplus portion is multiplied by is reduced. Hence the reduction in the marginal surplus value, which the present writer has shown to be a major theoretical implication of the Grundrisse; one which is carried forward to Capital. As Marx said in the third volume of the latter work:

Inasmuch as the development of the productive forces reduces the paid portion of employed labour, it raises the surplus-value, because it raises its rate; but inasmuch as it reduces the total mass of labour employed by a given capital, it reduces the factor of the number by which the rate of surplus-value is multiplied to obtain its mass.

It follows from this that, given revolutions in the forces of production which increase the value of constant capital, 'the rate of profit falls, while its mass increases with the growing mass of the capital employed.' It is this major contradiction which determines periodic crises. 'The crises are always but momentary and forcible solutions of the existing contradictions. They are violent eruptions which for a time restore the disturbed equilibrium.'

In analysing Marx's theory of crisis it is important to note that he distinguishes between the crisis of a particular phase of the trade cycle, which is called overproduction, and the resulting recess-
ion, which is the aftermath of crisis. General overproduction occurs when all additional investment for purposes of accumulation is zero. The reason for this state of affairs seems to be the reduced expectation of the capitalists of receiving a "sufficient" rate of profit. This explanation is merely surface phenomenon, as the fundamental reason for the crisis was thought by Marx to be the inability to realise more profit than there was surplus value produced.

Associated with overproduction is the extension of the credit system. The development of credit money, in the Marxist schema, exacerbates the general tendency of capitalist overproduction; it provides a medium by which capitalist production and circulation attempts to go beyond its limit. But the further this limit is seemingly surmounted, the more intense must be the ensuring crisis to reinstate the unity of production as a whole.

In chapter XXVII of Capital III, entitled, "The Role of Credit in Capitalist Production," Marx shows that credit is essential for the systematic equalisation of the rate of profit, 'upon which the entire capitalist production rests.' Consistent with the analysis given in volume II of Capital, he suggests that credit reduces the costs of circulation, and is therefore conducive to the massive accumulation of capital inherent in the operations of the joint stock companies. With the further separation of the functioning capitalist from the managing capitalist, the rise in power of the money capitalist, and the increased 'social concentration of the means of production', conditions develop which are antithetical to the further propagation of the capitalist system. This is especially true, for Marx, with the increasing socialisation of capital, the extension of credit, which
promotes more intense utilisation of existing capital, and increased capitalization itself. This in turn promotes the growth of the world capitalist market relations and, simultaneously, 'accelerates the violent eruptions of this contradiction - crises - and thereby the elements of disintegration of the old mode of production.'

His theory of credit was based on the development of the sphere of production: i.e., the increasing demand and supply of credit had its origins in the mode. At the more concrete level of analysis, surplus value is divided between profits and interest (ignoring rent at this stage); therefore, given a certain amount of surplus value, as one of its elements changes the other changes inversely. Also, with the growth of capitalism, the lower limit of capital required to commence capitalist operations increased. Hence the functional extension of joint stock companies and credit operations: 'The development of the production process extends the credit, and credit leads to an extension of industrial and commercial operations.'

Considered from this framework, Marx thought that one of the forces responsible for the promotion of economic activity after a period of overproduction was the lower rate of interest. During the recessionary stage of the cycle, the demand for credit declines more than its supply; in association with the reduced wages of labour-power below value, the forces of supply and demand provide conditions which enable capitalists to invest in productive capital. This is tantamount to the renewed progress of competitive activity, described above. As the demand for productive capital increases throughout the economy, and as new techniques increase profits in major industries, there is renewed demand for credit and labour-power operative with the new
technology. However, this increased demand for money, production and commodity capital tends to create rising prices. With the higher demand for means of production (Department I), subsistence goods (Department II) and luxury goods (Department III) it follows that:

The market price of labour-power then rises above its average, more than the average number of workers are employed, and the rate of interest rises at the same time because under such circumstances the demand for money-capital rises.

These factors then reduce the rate of profit for capitalist enterprise; Marx even goes as far as to suggest that the rate of interest may rise so high that the mass of profit becomes zero in some lines of business. Given the relative lack of credit under these conditions, the possibility of crisis associated with the breakdown of the means of payment function of money eventually causes a sharp disruption of the circuit of social capital. This presupposes a dissociation of the buying and selling of commodities within the context of money as a means of circulation, as the Theories clearly showed. But these occurrences are merely the result of overproduction (although credit itself magnifies the process of overproduction), the fact that the rate of profit of enterprise has failed to accord with the possibility of expanded investment.

Of course, the crisis of overproduction is not a matter of a shortage of productive capital in which to invest in; indeed, quite the reverse. As an extension of the excess capital theory developed in primitive form in the Theories, Marx showed that periods of overproduction are characterised by an excess of production from Department I, including buildings, machinery, raw materials. The reduction of investment
creates idle capital, and the means of production cease to operate as such. But capital is a social relation, which means that it is intimately related to the worker-capitalist function within the production process. Not only is the crisis itself consequent to the heightened contradictory relations between the production of surplus value and the accumulation of capital, but excess of means of production (in the manner specified above) is tantamount to excess labour power in production. The result of excess capital, and the disruption of money as a means of payment, is an obstruction of the transfer of money capital into production capital and production capital into commodity capital. The circuit of social capital, assuming the development of general overproduction, then undergoes successive cycles of chain bankruptcy throughout Departments I, II and III.

These characteristics of the crisis of overproduction are consistent with the concrete general laws of overproduction cited in the Theories (page 72 of this present study), but they also add some new specifications which are the result of 1) the higher degree of theoretical development, 2) the specific nature of Capital and 3) the more concrete the level of analysis given in Capital, volume III. The new specifications relate to the role of interest, the excess capital theory and the greater complexity of argument enabled by the constant employment of the distinction between money, production and commodity capital. But the most innovative developments inherent in the third volume of Capital, with respect to crisis and trade cycle theory, are connected with the forces promoting economic activity after the onset of depression. It is also true that, when considered in relation to the purpose of volumes I and II of Capital,
the laws of development are well illustrated over the range of the trade cycle. This is especially true with regard to the economic decline from crisis to general recession.

The magnified interruption of the circuits of social capital results in declining demand for money, means of production, labour-power and consumer goods; hence reduced prices for these capital components. There is also a reduced demand for luxury goods as the price of labour power is reduced below its value, and as the surplus value available for capitalist luxury consumption is reduced. The supply of production and commodity capital falls well below its demand, resulting in prices for the principal commodities of the three major Departments being less than their values. With stagnant reproduction, glutted markets and inventories beginning to fall, relative overpopulation develops and depreciation of existing capital occurs - all of which promote the rate of profit. The excess capital theory is strongly emphasised as the precipitating factor reducing profitability in the three major Departments. As Marx said:

Over-production of capital is never anything more than over-production of means of production - of means of labour and means of life - which may serve as capital, i.e., may serve to exploit labour at a given degree of exploitation; a fall in the intensity of exploitation below a certain point, however, calls forth disturbances, and stoppages in the capitalist production process, crises, and destruction of capital.

He went on to say that:

The circumstances which increased the productiveness of labour, augmented the mass of produced commodities, expanded markets, accelerated accumulation of capital both in terms of its mass and its value, and lowered the rate of profit - these...have also created, and continuously create, a relative overpopulation, an overpopulation of labourers.
The dialectical element in Marx's theory is fully illustrated with reference to the "counteracting factors" to the falling rate of profit. His theory of crisis posits the rate of profit as the fundamental motive for capitalist investment. But the very nature of capitalist accumulation attempts to transcend the limits imposed by the law of value - and more especially the production of surplus value. Hence the negation of capitalist growth for purposes of reinstating the basis of further development. The falling rate of profit is a tendency in the sense that it is the foundation of the workings of competitive enterprise, and is periodically surmounted through the development of relative surplus population, increasing intensity of exploitation, the cheapening of constant capital, and the reduction of wages below the value of labour power - all of which are the result of overproduction or crisis. Subsequently, as the rate of interest, wages and prices fall, and as capital is depreciated and destroyed, the basis is provided for the higher rate of profit. A necessary development for this is the growing concentration of industry, and the unequal opportunity for profitable investment.

Disequilibrium, Underconsumption, World Market
There are four important factors to note about Marx's theory of the trade cycle and crisis. The first is that his analysis is counter to the simplified example of the relation between prices and values given above (see the reproductive schemes on pages 115-16). In the Grundriss Marx suggested that values equal prices over the range of the trade cycle (or, more specifically, over a certain period): in this sense, given the assumptions of competition, etc., it is true that: (1) crises are characterised by extreme disequilibrium between prices and values; (2) crises are necessary for the elimination
of these disequilibrium situations; (3) general crises do not develop if disequilibrium is eliminated before becoming extreme; and, most important of all, (4) periodic crises are products of the contradictions associated with the structure and inner motion of capitalism. This is essentially consistent with the analysis of transformation given in Capital, except that in this work he is more explicit that transformation is necessary when the organic compositions are not universally and evenly distributed. Otherwise, when equilibrium is the case (which it is only as a result of chance), prices equal values when viewed from an analysis of the total social capital.

Second, the theory of crisis developed in Capital is totally alien from an analysis of underconsumption as a causal mechanism. In other words, Marx rejected a theory of crisis based solely on a theory of distribution. As was noted in the Grundrisse, Marx specified the sphere of production as the dominant force of development and demise of particular economic systems - and the structure of distribution was analysed as being largely predicated by production. The laws of distribution operate within the framework of the operation of the mode of production. The example of crises from Capital, III, clearly revealed that realisation problems - the failure of conversion from commodity capital to money capital - are largely the result, rather than the cause of crisis. Crises are predicated by the mode, which posed serious problems of production of surplus value with revolutions in the forces of production. This becomes manifest at the more concrete workings of capitalist society through overproduction (in value and mass) of the means of production - reduced conversion of money capital into productive capital. Is is relatively easy to
chose an acceptable quotation from Marx to justify the negation of the underconsumption argument, but somewhat more theoretically difficult to resolve apparently contradictory statements. For this reason, consider the following two statements by Marx:

(1) It is sheer tautology to say that crises are caused by the scarcity of effective consumption, or of effective consumers. That commodities are unsaleable means only that no effective purchasers have been found for them, i.e., consumers (since commodities are bought in the final analysis for productive or individual consumption). But if one were to attempt to give this tautology the semblence of a profounder justification by saying that the working-class receives too small a portion of its own product and the evil would be remedied as soon as it receives a larger share of it and its wages increased in consequence, one could only remark that crises are always prepared by precisely a period in which wages rise generally and the working class...also enjoys momentarily articles of luxury.

(2) [Assuming a society of workers and capitalists plus the absence of the dominance of credit money.] Then, a crisis could only be explained as a result of a disproportion of production [between Departments I, II and III...]. The ultimate reason for all real crises always remains the poverty and restricted consumption of the masses as opposed to the drive of capitalist production to develop the productive forces as though only the absolute consuming power of society constituted their limit.

The first quotation shows that it is superficial to suggest that inadequate effective demand for either productive capital or commodity capital is the "cause" of crises; especially the latter, since workers buy more commodities when crises are about to surface. In the second quotation Marx is abstracting from many of the concrete characteristics of capitalist society - trying to reduce the analysis to "fundamentals". It should be remembered from page 108 that an examination of the reproductive schemes, devoid of the peculiar features of capitalist contradictions, fails to illustrate the
"abstract necessity" for the development of periodic crises. The two distinctive features of capitalism are the incessant production of surplus value and the predominant commodity economy. The contradiction from the abstract perspective is between the revolutionary nature of the forces of production and the relatively static social relations under which capitalism operates. When applied to the more concrete field of examination - periodic crises - the contradiction can be viewed as being between the employment of labour power (production of surplus value) and the development of the forces of production. Increases in the organic composition of capital cannot abstract from the law of value: reductions in the necessary labour time, with every revolution in the means of production, limit the production of surplus value. Hence, when the "restricted consumption of the masses" and the "drive of capitalist production" relates to the increasing tendency of the organic composition of capital, the statement is partly resolved. The reference "as though only the absolute consuming power of society constitutes the...limit" to the development of the productive forces, suggests that there is another limit; the main one is, as realised above, the barrier to the production of surplus value, the inability of the rate of profit (and investment) to abstract from the laws of value. As regards the disequilibrium between departments, this was partly explained on pages 115-24, and relates to the expansion of means of production over-and-above that of consumer goods and luxury goods. However, since all sectors are related, essentially the problem is that all sectors invest in productive capital to the detriment of the rate of profit (even abstracting from credit); the expansion of that sector over-rides the rate of expansion of the other departments. The development of the credit system simply intensifies the crisis of
overproduction of capital (in value and mass).

The third point to emphasize is that the reproductive schemes (as presented by Marx) were limited with regard to an analysis of capitalism and crises. The major problems are: (1) the fundamental assumptions of the schemes; (2) the degree of application to crises; and (3) their applicability on the world scale. With respect to the first of these points, as should have been obvious from pages 104-8 above, neither the assumptions of simple nor extended reproduction accord with the complexities of capitalism as a whole. This is not so much a criticism of the schemes as developed in Capital, II, which was necessary for the understanding of the total social capital in the abstract, but relates more to the failure of Marx to utilise the schemes in the third volume. Most important, and this relates to (2), the application of increasing productivity of labour through revolutions of the forces of production were not forthcoming, which would have provided more insight into the forces of competition and disequilibrium throughout the economy as a whole. (1) and (2) are less important than (but relate to) the problem of the world economy, which needs to be discussed in relative depth.

Fourthly, one of the 'counteracting forces' to the falling profit rate (see page 110) is investment in constant capital and necessities of life through foreign trade. But Marx does not have a detailed theory of international trade and the world market: as he said, the question concerning the effect of foreign (colonial) trade on the general rate of profit of the highly developed capitalist economy is "beyond the scope of our analysis". While Marx does suggest that such trade may secure the highly productive firm a surplus profit - due to lower
costs of production - he discounted the possibility that this would be a permanent effect due to the laws of competition (in much the same way as the example given on pages 112-14 above). There is a crucial issue at stake here. Marx stated that one of the 'three cardinal facts of capitalist production' is the creation of the world market. Yet the examination of the unity of production and consumption in volume III of *Capital* was devoid of a rigorous theory of the world market. An examination of the Theoretic Whole (page 3) reveals that the 'world market and crisis' was at the most concrete level of presentation of the theory of political economy, preceded by an analysis of international trade, the State, wage labour and landed property. Assuming that these areas were desired components of a theory of crisis, since it enables a more concrete examination of the factors which influence the form and duration of crises, it becomes obvious that Marx's theory is extremely limited in the degree of descent from the abstract to the concrete. At the same time, the structural investigation of capitalist production provided a framework for proceeding to the more concrete levels of analysis; and, most importantly, provided a theory of "abstract crises" with some concrete applications. The analysis given by Marx to overproduction and changes over the range of the cycle were well specified, and a definite advancement on earlier work. But the more interesting long run questions concerning integration within the world capitalist market relations, disarticulation of the economic system, and a theory of the international workings of the capitalist system in relation to precapitalist and metropolis-satellite structures, were outside the framework of *Capital*. Marx is, nevertheless, consistent throughout all the work covered in this study (and his articles on precapitalist
society) in assuming that the worldwide expansion of capital would revolutionize all previous modes, impose capitalism by force, plunder and coercion. Due to this assumption he failed to develop a theory of imperialism, of the continual transfer of surplus value from a satellite to a metropolis structure. And he did not consider the implication of disequilibrium between the major sectors of the economy within the context of the world capitalist system. This is not so much a criticism but the realisation of the limits of his analysis. Also, it suggests that it is crucial to study Marx's work with the Theoretic Whole in mind; that Capital was the unfinished part of a totality, one which was by the early 1860's outside the scope of Marx's own anticipated works. In this respect the Grundrisse was very important for an investigation of a theoretical structure and methodology; for illustrating crises within a wider framework (see especially pages 46, 47-59); and for posing problems which were never studied in depth.
Marx's etiological analysis of the inner workings of the capitalist mode of production sought to understand and promote structural change. This presupposed theoretical development conducive to structural ontology and methodology. The notion of the mode of production actually presupposed more than a structural theory, since the mode was a contradictory phenomenon. Essential ingredients for the development of a Marxist theory of the mode were dialectical and materialistic applications to society. In other words, it was necessary to transform the mode from a mere notion to a valid method of political economic analysis.

This present study suggests that the *Excerpts* and the *Paris Manuscripts* provided crucial preliminary investigation, or base criticism, for the construction of a new science of economics. It was, therefore, not surprising that these works had many shortcomings for an investigation of crises. Notable in this regard was the absence of investigation into the contradictions which emanate from the sphere of production, with special reference to the limits of exploitation. It is essential to emphasize that, since Marx based his theoretical substance and critique on only one of the two major peculiarities of capitalism - the predominant commodity economy - the emphasis in the analysis of crises theory centred on the negation of Say's Law and the divergence of price from value. In this sense, a necessary component of a theory of the demystification of surface phenomena was missing.
Consolidation of theory occurred with the writing of the Poverty of Philosophy and the German Ideology. The concept of the mode of production was first formally analysed, the negation of crises by reform of the sphere of circulation was shown to be impossible on the basis of the workings of the sphere of production, and commodity fetishism was criticised as being ignorant of the social relations upon which capitalist society depends. The transition from the Excerpts to the Poverty was marginal in the sense that the capital-labour relation described in the former work (and the Manuscripts) was formulated in a more systematic fashion.

The Manifesto and the articles from the Neue Rheinische Zeitung Revue transformed the 'three long run characteristics' of capitalism, as originally described in the Paris Manuscripts, from an examination of alienation to the study of contradictions of capitalism and their implications to crisis theory. But the limitations of the capitalist mode cited in the Manifesto were not analysed at sufficient depth to enable a rigorous theory of the short run methods of attempting to overcome these contradictions. More particularly, the self-expansion of capitalist on the world scale was assumed to be totally revolutionary in transforming pre-capitalist modes; this assumption followed from the basic notion of the mode, the system, the functional relations between internally contradictory elements.

At this point it is useful to notice that the mode of production was the centrepoint for analysis of crisis. It became especially notable after the earlier period of Marx's intellectual development that the mode 1) was based on the application of dialectical materialism,
2) formed the basis of a systemic relationship between periodic and terminal crises and 3) was essential to the development of discourse from the abstract to the concrete analysis of capitalism. Since periodic crises were for Marx the precipitating mechanism enforcing unity between opposing forces, at the more concrete level of investigation, it follows that (1)-(3) all relate to an understanding of crises. This reinforces the emphasis given in the *Grundrisse* and *Capital* to the inextricable relation between periodic crises and the capitalist mode - and the universal association between terminal crises and all finite modes. But what of the relation between both forms of crises? For answers to this question Marx thought it necessary (during the early 1850's) to study capitalist production at depth, which presupposed a method conducive to such an analysis.

With the writing of the *Grundrisse*, Marx for the first time studied in detail questions crucial for the development of an integrated theory of political economy. This work provided an osculation with the three major hypotheses of this present work: First, because it illustrated the relation between dialectical materialism and the dynamics of contradiction with respect to the development of capitalist crises (hypothesis one). Second, it clearly expressed the desirability of proceeding with discourse from the abstract further and further along the concrete level of analysis, until theory mirrored the surface nature of society (hypothesis two). And third, the *Grundrisse*, more than any other work, connected the terminal and periodic crises to the conception and operation of the capitalist mode of production (hypothesis three). In this work, the "proofs" of decline followed from a conception of history, rather than long run political economic
motion. Looked at within the framework of the *Grundrisse*, a number of conclusions can be made with reference to the early, intermediate and latter works.

The most notable one is that the *Excerpts* and the *Paris Manuscripts*, while positing the divergence of Existence from Essence, still failed to adequately transcend the limited horizons of the classical economists and Hegel. Since Marx was confined within the analysis of surface phenomena - wages, profits, rents - the idea of crises being determined by the limits imposed on capitalist production of surplus value was estranged from him. This is true regardless of the fact that the tendencies towards accumulation, concentration and the conflict between workers and capitalists were conceptualised within this early theoretical schema.

In other words, the analysis of crises in these early works was inconsistent with the idea developed in the *Grundrisse* that the two major abstract peculiarities of the capitalist mode were 1) the incessant production of surplus value, and 2) the predominant commodity economy. This is not so much evidence of a substantive contradiction between these works, as the development and enrichment of concepts, and the further understanding of the dynamics of society. Nevertheless, in all Marx's years after 1843, he postulated the periodic and terminal nature of crises within capitalism; it was the relation justified by theoretical rigour which differed from the early and the intermediate periods.

The two major methods of periodically attempting to promote unity between the major contradiction of the capitalist mode, as cited in
the Manifesto (but not well specified). Periodic crises and the expansion of markets were extended to form twelve factors in the Grundrisse. Since, according Marx in this work, the other eleven factors were more desired by the bourgeoisie than crises, the tendency of capitalist economy was in line with the development of the world market, the revolutionary negation of the pre-capitalist modes, the extension of the commodity economy in established markets, the growth of natural science, monopoly, division of labour, new methods of production, regional inequality, and the lowering of taxation on the increasingly extended nature of capitalist enterprise. The Grundrisse established these as methods of increasing the mass of surplus value available for development. However, something not examined in depth in any previous work were the effects of the major contradiction of the mode on the production of 'marginal surplus labour time'; which showed that crises are not caused by circulation, but the tendency for circulation of commodities to attempt to go beyond the limits imposed by the sphere of production. The rigorous formulation of this barrier of the law of value on capitalist growth was a major theoretical breakthrough - and was an indication of the importance of this work.

The Anticipated Theoretic Whole provided a basis for possible further development of Marx's political economy. It showed that crises were best studied within the totality of moving within discourse from the most abstract to the concrete analysis of capitalism. The abstract peculiar provided a framework for understanding the mode - the contradictions of which predicated abstract crises; and the further the presentation proceeded to the concrete the more complete the
understanding of the concrete motion of capitalism. The Theoretic Whole was never developed by way of discourse, and after the Grundrisse Marx decided that the complete works would fall under the first section of the Theoretic Whole (capital). It followed from this that no detailed understanding of crises was possible at the most concrete level of analysis, due to the absence of an examination of the State, international trade and the world market (in particular).

Considered within this framework, Marx's work on crises is more easily understood. Incorporating the levels of inquiry as the abstract, the concrete and real provided an important tool for investigating the theory of crises. The Neue Rheinische studied crises at the "real" level - 'the effects of overproduction', as Marx said. This was only suitable for description, or journalistic work, not a science of political economy. The Theories of Surplus Value was more concerned with a critique of the Ricardian theory of accumulation, than a total abstract-concrete theory of crises. Hence the apparent ignorance of the relation between the periodic and the terminal crises (which many authors have not understood). The Theories, nevertheless, did provide important developments into the theory of crises; especially the rejection of the non-dialectical notion of the falling rate of "profit" as devised by Ricardo; the formal possibilities of crises associated with money as a means of circulation and means of payment; the necessity for crises due to the contradictions of the mode (as shown much earlier, but here related to the concrete determinations); the concrete general laws of overproduction; the major forms with which crises can take; and, more generally, short run changes in economic activity due the contradictory nature of capitalist society.
Without an understanding of the nature of Marx's work in the *Grundrisse* (especially), the method, scope and analysis given in *Capital* is hard to conceptualise. Not only is this true with regard to its structure, but also the dialectical concepts employed and the framework for examining crises. The dialectic is an inextricable component of *Capital* (methodology, ontology and epistemology); the content of this work is a component part of the Theoretic Whole; and the capitalist mode of production provided a framework for relating the periodic and terminal forms of crises.

The *Laws* of capitalist development cited in volume I were the basis of a more concrete investigation of the mode: it represented the inner motion which were modified in relation to the surface institutions of society. The first two volumes illustrated that crises were determined from within the sphere of production, and that circulation constantly attempted to transcend these limits. This is consistent with, but a definite extension of, a conclusion which was formally made in the *Poverty* and the *German Ideology*. But these earlier works failed to postulate this association with the limitations of exploitation (although the theory of value was developed in crude form with these earlier works).

Marx showed in volume one of *Capital* that the concrete dialectical opposites - demand and supply, purchase and sale, use-value and exchange-value - which are inherent in commodities, mystified the structural contradictions of the capitalist mode. Only when the peculiar abstract is conceptualised - the abstract crises of the mode - can crises be more fundamentally understood. Then, and only then, should the analysis (presentation) proceed with the concrete, since
otherwise the structural origins of crises would be ignored. The fact that without a detailed theory of circulation the manifestations of the contradictory nature of the mode would be outside the scope of analysis, necessitated the completion of volume II of Capital. This study provided Marx with a rich set of tools for examining the relation between the components of the total circuit of social capital, as the unity of production and circulation. But only with the third volume of Capital could the concrete investigation proceed with any reasonable degree of depth.

There were three main theoretical developments with the writing of the third volume of Capital. The first was the dialectical formulation of the tendency of the rate of profit to fall; the tendency is systematically and periodically annulled as capitalist production finds it impossible to transcend the barriers of the sphere of production. This was a definite advance on the Grundrisse, which failed to provide specific statements on the movement of the rate of profit through time.

The second development was the conception of overproduction being overproduction of means of production - both of value and mass. As the means of production become both intended and used to capacity, and as the ratio of constant to total capital rises, surplus value per unity of constant capital employed in the production process becomes reduced, and the motivation to invest in further production capital falls to a low ebb - additions to the capital stock eventually fall to zero. This results in the destruction of capital mass and value. Intimately related to the motion of capitalism is the competitiveness of enterprise; with the eventual collapse of the major sectors of the
economy, the conditions are created which promote economic recovery: the dynamics of the upturn are related to the 'counteracting forces' to the falling rate of profit. This is important, and was shown to be the third major breakthrough of the third volume of Capital. The other works had not posited detailed specifications of the forces promoting economic activity, at least within the framework of a model of the business cycle. And while some reference had been made to competition in the earlier works, Capital, III, showed that the tendency for the equalization of the rate of profit was a crucial dialectical force promoting both recovery and decline.

Apart from these major advances in theory, there were many serious gaps within the totality of Capital. The more fundamental ones related more to "unfinished work" and the limited progression to the concrete level of analysis. The fact that Marx failed to relate the reproductive schemes to capitalist production in its totality, suggests that either 1) he found it to be of little use for examining the more concrete elements of capitalism; or 2) he did not finish the volume. The present study showed that the schemes are well suited to analysing crises - if only at the more concrete levels - and that the comments by Marx in Capital, II, were certainly consistent with a theory of disequilibrium between both values and prices and the major industries of the economy. Therefore the latter alternative seems to be the only feasible answer.

More serious problems arise when it is realised that Marx failed to study crises in association with a theory of 1) the State, 2) international relations, and 3) the world market and crisis. This is not so much a criticism, but when related to Marx's theory of the revolutionary
and destructive nature of capitalism, it does suggest that the assumption of the predominant capitalist economy was alien from these more concrete fields of analysis. However, given the limited frame of reference for Marx in Capital, it follows that the method of abstraction is useful for simplifying the order of things when the more concrete questions have not been introduced. Considered from this framework, Marx's theory of crisis in all his work was consistent with the analysis of the limited component of the totality of manifestations of the mode. However, the central point of analysis which provided the impetus for theoretical sophistication during the 1850's in particular, was the development of a theory of a structure: and this structure showed that the terminal and the periodic crises were related. While the Grundrisse paved the way for the development of a long run theory in which to integrate the short run analysis with the laws of development of capitalist society, this was not completed for two main reasons: 1) the sheer magnitude of the work, and 2) the fact that theory within its materialist framework is supposed to analyse the historical and structural components of the mode. The more complex society becomes, the more abstract the theory needed in which to work with at the inception of theoretical development. Hence the revolutionary theory of the capitalist mode which Marx developed gave many insights into crises. And while Capital provides the most detailed analysis of periodic crises, it is the Grundrisse which should provide the impetus, both for inquiry and presentation, for further work on the relation between the determinate mode and short run cycles.
Chapter One

1: On this simplistic and essentially wrong interpretation of Marx's theory see Shlomo Maital, "Is Marxian Growth Crisis-Ridden?", History of Political Economy, Vol 4/1972. While this writer only intended to study the reproductive schemes, it is clear that his understanding of the structure of Capital is very limited, not to mention other works of Marx. For instance, he said: 'In the reproductive schemes, Marx believed he had shown that the fact capitalists save and accumulate capital leads inevitably to economic crises' (p. 113). This is an amazing statement in view of the assumptions of the second volume of Capital, which specifically ruled out crises (see chapter seven of the present work).

2: See Paul Craig Roberts & Mathew Stephenson, Marx's Theory of Alienation and Crisis, Stanford, Hoover Institution Press, 1973. (Appendix & chapter 4.) This work almost completely ignores the contradictions from within the sphere of production, and considers capitalism from the one-sided view of the predominant commodity economy (without also emphasizing the incessant and contradictory exploitation of labour). By suggesting also that Marx's theory of crisis is based on a negation of both Say's and Walras' law, they have emphasized only the 'abstract possibility of crisis' (see chapter four of this present work), rather than the forces which determine the necessity of crises. Compare this with a much better work by A. Gamble & P. Walton, Capitalism in Crisis: Inflation and the State, London, Macmillan, 1976. (Chapter 4.)

3: The classic banality is Joseph M. Gillman, The Falling Rate of Profit, Marx's Law and its Significance to Twentieth-Century, London, Dobson, 1957. Any study which fails to relate chapter XIII of Capital, III, to chapters XIV & XV must be seen to be inadequate. In this regard it is surprising to see a recent work treating Gillman's study seriously: Meghnad Desai, Marxian Economic Theory, London, Gray-Mills, 1974. (Chapters XVII & XVIII.)

4: One of the best studies to be published recently on Marx's theory of crisis is Michael A. Lebowitz, 'Marx's Falling Rate of Profit:

5: The only exception is Makoto Itoh, "The Formation of Marx's Theory of Crisis," *Science & Society*, Vol XLII, No 2/1978. Itoh traces his theory from the *Grundrisse*, but, on my reading, misinterpreted both the importance and the content of this work. Itoh's discussion of the concrete analysis of Marx's theory is good - especially on the development of an "excess capital theory" - but the predication of the mode are not emphasized (hence the underdeveloped opinion of the *Grundrisse*).

6: A study on development of Marx's theory cannot possibly hope to ignore certain questions of empirical development, especially when it concerns the ability or otherwise of the abstract and the concrete theory to determine the real: one of the crucial hypotheses of the study, and with implications for the theory of the total breakdown of pre-capitalist forms by the revolutionary nature of the capitalist mode.

7: The reference to a "structure" relates to each individual work of Marx.

8: From the "Abstract" to Allen Oakley's *A Bibliographical Analysis of Karl Marx's Writings in Political Economy*, Research Report No. 39, The University of Newcastle, Department of Economics.

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10: Things are not as simplistic as suggested in this Introduction; it is shown throughout this study (more especially from chapter three) the precise nature of the Theoretic Whole. For a more detailed analysis of this see Oakley (1977).

11: It is incomplete in at least two respects. First, Marx (after the 1860's) never intended to complete the Theoretic Whole; and second, what he did intend to complete (category (1)), was never completed either. This has implications not only for the Theoretic Whole, which recent Marxist scholars have attempted to develop (and modify), but also for the incomplete nature of Capital, III. On some points relevant to this see chapters seven and eight of this present work.

12: The implication of this, which is worked out later, is that readers of these different sections may get quite different impressions of Marx's theory of crisis from each. Hence the importance to 1) read widely different parts of Marx's work, and 2) consider it in relation to the Theoretic Whole, or the method of commencing with discourse from the abstract and proceeding further and further to the concrete level of analysis.

13: This point is especially true with respect to the study of 'real' crises (the *Neue Rheinische Zeitung Revue*), 'concrete' crises (Theories of Surplus Value) and 'abstract' crises (*Grundrisse*).

14: See chapter five for an analysis of this in more detail.


16: To philosophers this point may not be obvious: for an analysis of the actual development, or a theory of development, from the short to the long run, it is desirable to transform the short-run theory into a long run theory. Otherwise, the two may be considered theoretically (and in reality, if the theory does explain the actual working of a mode) distinct. This is true unless one wishes to construct a theory of the two-period states (short run, terminal) which only has a common basis, without the short run itself passing into the long run by way of a rigorous model (see chapter three of
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17: This is not so much due to the distinction between philosophy and economics, but also the difference between abstract theory and the dynamics of capitalist development. Nevertheless, when considering the relation of the short and the long run from the abstract level, it is desirable to cite the relation in the way done in the Grundrisse, since the abstract-concrete theory cannot be completed within the context of an "international veneer" - it must be developed gradually from the abstract to the concrete; and the 1857-8 manuscript did not intend to proceed to the most complicated movements of the capitalist system.

18: To readers not familiar with either the Grundrisse, Hegel's philosophy, Lenin's remarks on Capital or the 'Preface to the Second German Edition' of Capital, I, this may not be obvious. The fact is that, since Marx differentiated between the methods of inquiry and presentation, the latter was thought to approximate the abstract-concrete development of a theory of capitalist economy, rather than inquiry itself.

19: This early period includes the following relevant works:
The Excerpts from James Mill's 'Elements of Political Economy':

20: That is not to say, however, that the work which considered 'surface phenomena' is not relevant to Marx's theory of crisis; this is especially true with the articles from the Neue Rheinische, which not only made important parenthetical remarks on the non-surface phenomena, but actually helped Marx later develop the
more abstract components of crisis theory.

21: This work is entitled, "Money System, Credit System, Crises," and relates to the different theories of exchange rates; it was described by Marx as being 'extraordinarily rich in content'. On this see Foreword to the Grundrisse, written by Martin Nicolaus, p. 12.

22: These two works are the only ones considered in depth in chapter three, and have been fully cited above.

23: Especially Theories of Surplus Value, Part II, Moscow, Progress Publishers, 1968, pp. 426-546. Useful sections from the other parts (I, III) of this work will also be utilised where necessary.


Chapter Two

1: Early Writings, pp. 259-400.

2: Hegel defined Essence as 'Being which has passed away, but passed away non-temporally'; Essence is that which is 'behind the Being', 'something other than Being itself', 'the truth of Being'. See G. Hegel, The Science of Logic, London, Allen & Unwin, 1929 (Translated by W.H. Johnston & L.G. Struthers), Volume II. p. 15.

3: Early Writings, p. 265. 4: Early Writings, p. 269.

5: Early Writings, p. 260. 6: Early Writings, p. 260.

7: It is illustrative to consider this theory with the interpretation of 'Marx's theory' given by Roberts & Stephenson (1973). On doing so it shows the trite nature of both works when compared with the Grundrisse, and the analysis from Capital, I, of commodity fetishism (although it is not strictly a sophistic fetishism).

8: It is important to notice his reference to 'private property',
rather than the means of production as such. The emphasis to private property is a much less abstract theory than that assumes a two class society between workers and capitalists, excluding rentiers, etc.

9: This is true, although the relation of the short and the long run crises was not rigorously analysed within the framework of a theory of the mode.

10: The emphasis on disequilibrium and negation of supply and demand does not show a highly developed theory of the capitalist system - which is related to the predominant commodity economy, and the incessant exploitation of labour (the latter of which was not conceptualised in this work).

11: The fact that he did not specifically relate this second feature to the rate of profit, the increased need for exploitation, etc., is indicative of the lower level of development of the Manuscripts, when compared to the post-1850 work.

12: This is true, although proofs of increasing misery were not forthcoming.

13: Early Writings, p. 286. 14: Early Writings, 286.

15: It cannot be said that Marx was totally obsessed by the fetishism of commodities, as he did notice a structural compulsion for capitalism to 'go beyond its limit', but this was not examined at a level conducive to a detailed theory of the mode. Also, the social relations of production between capitalist and worker was becoming well developed at the lower level of analysis.


18: In other words, it was necessary to conceptualise the association between the forces of production (means of production and means of labour) and the relations between capitalists and workers in the production process.

19: The necessary labour time is defined as that which is needed for subsistence conditions of the workers; surplus labour time is the work-time which is over-and-above that necessary for labour subsistence conditions (see chapter three).
That is, productivity brought about by technical progress, or, as Marx later remarked (in the *Theories*), by increases in the organic composition of capital (see chapter four).

20: *The Poverty of Philosophy*, p. 66.


27: Specifically, in Marxist theory, the forces of production exclude worker capacity and skills; but considered from the view of production capital, both worker capacity and the means of production are included together.


29: *Revolutions of 1848*, p. 70. 30: *Revolutions of 1848*, p. 73.

31: *Revolutions of 1848*, p. 71.

32: Or, more generally, any relation which was based on the non-predominance of the capitalist mode (in the long run) was alien from Marx's schema. This is especially important for the modern theory of social formations, imperialism and the development of underdevelopment - which Marx did not consider necessarily possible. On this see: Shlomo Avineri, "Karl Marx on Colonialism and Modernization," in M.C. Howard & J.E. King (Ed), *The Economics of Marx*, Harmondsworth, Penguin, 1976.

33: This general statement is consistent with Marx's ideas up until his death (or at least all the volumes of *Capital*, the *Grundrisse* & the *Theories*).

34: *The Revolutions of 1848*, p. 77. 35: *Revolutions of 1848*, p. 78.

36: The fact that it has not passed the test of history is important to the validity of Marx's theory in general, not only for his theory of crisis (see footnote 32 this page).

37: This is a very important insight Made by Marx, and one which
he held for the rest of his life; although, it should be emphasized, this idea is only possible from reading the Neue Rheinische and the Poverty (or The German Ideology) as a whole (as a structure, together).


40: Revolution, p. 293. 41: Note: Marx had not conceptualised labour as a commodity called "labour power".


44: Revolution, p. 292.

45: The differentiation between the abstract, the concrete and the real crises can be analysed in his early works: but it is more noticeable (and emphasized within methodology - for those levels of analysis in general) in the Grundrisse.


Chapter Three

1: See Oakley (1977), chapter 2.


3: The "Introduction" was not actually written specifically for the Grundrisse; the 1857-8 manuscript must be considered as a "rough draft", rather than a work as such. Considered within that
framework, while it was of the same theoretical substance and similar style to the other components of the manuscript, Marx had passed it off with the writing of the Contribution as not being (at that time) substantiated; but it is thought by the present writer as being very consistent with the method of Capital itself (although the Theoretic Whole is much more embracing than the actual nature of Capital, the substance of Capital and the Contribution (taken together) constitute the form of the first category of the Theoretic Whole.)


6: The polemic over the possible change in Marx's ideas concerning the Theoretic Whole concerns the first two categories of what was stated in the Grundrisse. There he cited "1) the general abstract determinants which obtain in more or less all forms of society, but in the above explained sense. 2) The categories which make up the inner structure of bourgeois society and on which the fundamental classes rest. Capital, wage labour, landed property." (p. 108). But, it is important to note, Marx in this work showed that it was important to study category one insofar as it provides an insight into the bourgeois category; and in Capital, this is precisely what he has done - integrated the peculiar and the universal in order to provide the introductory analysis of capital in abstract (he did not want an "international veneer" with everything introduced at once, but the correct scientific method of proceeding from the abstract to the concrete level of analysis). This accords with the Theoretic Whole from page 264 of the Grundrisse. Look at from the view of the general method, from the abstract to the concrete, the method is understood at sufficient level of generality. (Note: In Capital Marx even suggests that an analysis of the commodity is a "simple category" - like labour, value, etc. More on that from the footnotes of chapter seven).

7: Thus the critique of the Soviet works on the development of the
modes of production from the primitive, slave, variety, to the modern communistic variety. For instance, see the method adopted by the following works (one alien from Marx): See the Introduction to S. Vygodsky, Capitalist Economy, Moscow, Progress Pub., 1966; and chapter 2 of G.A. Kozlov (Ed), Political Economy: Capitalism, Moscow, Progress Pub., 1977.

8: This conception of the whole - the mode of production - is a logical development from the earliest work of Marx on political economy, where he ignored the economists for ignoring the historical relativity of capitalism, as a system.

9: A controversy has developed on the importance of the economic verses the superstructure of society. A casual glance at the "Preface" to the Contribution would lead one to think that the base was the sole determining element for change. But this work only summarised what he has stated elsewhere to be quite different. The teleological approach to science within the social sphere, it is thought by the present writer, poses often more problems than it solves - and more particularly "laws of motion" which may not affect development within certain circumstances. Nevertheless, a specific analysis of the relation within the context of certain stages and periods of change of the base and the superstructure, actually has never been provided (from my knowledge) by Marxists.

10: Grundrisse, p. 85. 11: Grundrisse, p. 258.

12: Note that Marx has begun to use the term labour power, rather than labour, in referring to the commodity which produces a value in excess of its own.

13: Marx suggests in many places that, while production could not be undertaken within bourgeois society without capital and wage labour, and while both constant and variable capital are productive, only variable capital produces a value in excess of its own - constant capital is 'stocked-up labour power' - and the less labour power employed per unity constant capital, the less per unity value incorporated into the commodity in question.

14: This example is the construction of the present writer: a formal example of a more or less verbal illustration given by Marx.
Footnotes: Ch. 3

15: Marx discusses in the *Grundrisse* the determination of individual commodities, value and price at the aggregate social level, and at the sectoral level. For a more formal example of this see chapter seven of the present work.

16: While it is important, it cannot be said to have formed a "structural unity" with the whole of the *Grundrisse*, although he did employ the terms more as the work progressed.

17: *Grundrisse*, p. 146. 18: This is a distinction also made in parts of *Capital*.


21: More particularly, as Marx would have said later, when the organic composition is both increasing and in disunity between the major sectors of the economy.

22: Whether it does develop depends on the general nature of the overproduction throughout the major sectors of the economy; as the reviews from Marx journalistic days of the 1840's showed.


30: The autonomous and determined nature of class struggle within the framework of wage bargaining, strikes, revolution were without Marx's major economic works from the years after 1850; this is surprising in view of Marx's method of abstraction - the method of presentation starting with the abstract and
footnotes: ch 3/4

31: As was mentioned before, the manuscripts were at a low level of structural development, with special reference to the determinations of the predominant mode.


34: Grundrisse, pp. 749-50.

35: That is to say, while the Grundrisse constructed or formulated the theoretic whole, its major task or function was self-clarification or, more precisely, the development of conceptual richness: development of dialectical methodology, ontology and epistemology, with special reference to an application to questions of political economy.


44: Grundrisse, p. 410. 45: Selected Correspondence, p. 121.


Chapter Four

1: The relation between existence and essence and crises is tantamount to the contradiction between price and value; which, as should be obvious by now, is a superficial consideration of crises if abstracted from the determination of the mode.


Footnotes: Ch. 4


6: Competition was not analysed in depth in the *Theories*, due to the more restricted nature of the work.

8: Selected Correspondence, p. 161.

9: 'This is so since the Grundrisse was used for the purpose of working out and developing richness within discourse; whereas the method of discourse cited in the Grundrisse suggested that this would be the realm or function of inquiry.

11: *Theories*, II, "p. 500-1

12: That is to say, 1) & 2) are more peculiar than the functioning of money as a means of circulation; however, as stated above, the two major characteristics of capitalism are 1), plus the incessant production of surplus value.

13: Grundrisse, pp. 123, 416, 862-70.  

15: *Theories*, II, pp. 112-3.  

17: *Theories*, II, p. 524.  

19: This is obvious due to the fact that the Grundrisse specialised in the determinations of the mode.

20: *Theories*, II, p. 520.  

23: The 1861-3 manuscript does not, as suggested above, deal with competition very much; nevertheless, Marx does show that this process is important for an analysis of crises.


25: In one place, Marx is not even about the determination of the contradictions within capitalism:

"The mere [!] (direct) production process of capital in itself, cannot add anything new in this context. In order to exist at all, its conditions are presupposed. The first section [of Capital] dealing with capital - the direct process of production - does not contribute any new element of crisis. Although it does contain such an element [notice here that Marx is contradicting himself, though he does favour the latter conclusion], because the production process implies appropriation and hence production of surplus value."
But this cannot be shown when dealing with the production process itself, for the latter is not concerned with the realisation either of the reproduced value or of the surplus-value. This can only emerge in the circulation process which is in itself also a process of reproduction.

Marx is, of course, correct: but a considerable advance occurred with the writing of Capital, I, where Marx learnt to study production under the assumption that the circulation period is zero. On the question of the excess capital theory, it would seem necessary to have a theory of the limit of the sphere of production to show that the rate of profit is inhibited quite fundamentally from without of the process of circulation per se. This, it would seem, is what Marx did in volume I of Capital; nevertheless, the preceding analysis of the Grundrisse and the Theories were indispensible for that development. Indeed, more so the Grundrisse for the marginal surplus labour time limit; and the Theories for the critique of the classical conception of the rate of profit and surplus value.


Chapter Five

1: This is due to the fact that it concentrated on the forms and general laws of crises, rather than the general theory of the mode, with reference to both periodic and terminal forms.

2: That is, rigorous models of capital, wage labour, landed property, the State, international trade and the world market and crises.

3: Capital, I, p. 28.

4: This is obvious from the decision to concentrate on the first category of the Theoretic Whole: See Oakley (1977) on this.


7: There is some evidence that Marx thought the commodity to be
more universal than one would expect. This is especially true of components of the Part I of *Capital*, I.


10: *Capital*, I, pp. 19, 80, 137, 551.

11: It was therefore teleological in the sense of showing that the mode was the determining mechanism for change; although, obviously, some degree of plurality must be incorporated into the analysis—and, indeed, was by Marx. (See, for instance, *The German Ideology*.)

12: These laws are discussed in diverse sections of *Capital*, I; see especially chapters XVI, XVII, XVIII, XXIV, XXV, & XXXII.

13: That is to say, he assumed a circulation period of zero; obviously reproduction had to occur, but Marx largely abstracted from the problems of realisation inherent in the commodity form of production (he emphasized both of the peculiar factors in capitalist development, but payed special reference to the incessant production of surplus value in the determination of the major contradictions of the mode).


Chapter Six


6: *Capital*, II, p. 120. 7: *Capital*, II, p. 128.

8: An exception is, amazingly enough, the academics from the USSR Academy of Sciences: G.A. Kozlov (1977), chapter 6. It seems to me, however, that they have not fully understood the section, as they suggest the importance of the underconsumptionist argument (see especially p. 201). Also, see the interesting article which

9: Capital, II, p. 309; III, chapter IV.
12: Which, of course, was without of the rigorous model of capitalist development - since Capital was alien from the full completion of the Theoretic Whole.
13: In the last analysis means, eventually: i.e., through the periodic destruction of capital, values, etc.
14: See part II. 15: See chapter seven of this present work.
18: 'Productively' is related to the production of surplus value.

Chapter Seven
1: See Capital, III, pp. 399, 398, 399, 401, 413, 500, 461, & 474.


10: *Capital*, III, p. 239 (emphasis added).


13: This statement needs to be qualified: Marx certainly saw some inherent connection between the falling tendency of the rate of profit and the demise of capitalism, but he failed to specify. It is most probable, had he completed the work he would have liked to have, the law might have been related at the concrete world level, with special reference to the peculiarities of the structure of capitalist production at the world level. But, interestingly enough, in the *Grundrisse*, Marx made specific statements on the more intense and terminal nature of the periodic crises. Nothing so specific was stated in *Capital*, which may mean that Marx had a fundamental shift in ideas. It is only a possibility.


16: The method of calculation is borrowed from Koshimura (1975), chapter VII.

17: In this respect I would agree with Koshimura, that the assumptions of the Bortkiewicz procedure are somewhat restricted (e.g., it is not able to make transformations when disequilibrium is present between the major sectors of the economy.

18: Values equal prices since; with reference to the Bortkiewicz method:

\[ \begin{align*}
    c_1^x + v_1^y(1+r) &= (c_1 + c_2 + c_3)x = a_1^x, \\
    c_2^x + v_2^y(1+r) &= (v_1 + v_2 + v_3)y = a_2^y, \\
    c_3^x + v_2^y(1+r) &= (s_1 + s_2 + s_3)z = a_3^z, \\
\end{align*} \]

\[ m = 1.25; \ y, \ x, \ & \ z = 1. \ (Note: \ m = 1+r) \]

19: Notice that the productivity improvements usually related to the increased organic composition, is not imposed in the example. This is due to simplification, and does not negate the central
point illustrated.

20: That is, all the assumptions from page 104 apply, except 1, 2, 5 & 6.


22: Specifically, not all profits become equal, but a tendency is in operation.

23: Even if this is not the case, the tendency for the rate of profit to equalise will reduce the realisation of surplus value - and the limits of production (even given full realisation) will obtain; of course, given the higher rate of constant to total capital, this poses a fundamental limit to the motivation of capitalists to invest in productive capital.


29: Marx is here alluding to the increasing socialization of capitalist enterprise through the development of joint stock companies and credit operations. On the former, it is important to note, he does not negate the functional relations between capitalist controller and shareholders. In other words, the divergence does not negate the intimate relation between capitalist and the profit motive - although he does allude to some limit of capitalist motivation. See chapter XXVII of Capital, III, and Michael De Vroey, "The Separation of Ownership and Control in Large Corporations," in the Review of Radical Political Economics, Vol 7, No 2, 1975.


34: Capital, III, p. 255. 35: This is possible since labour power value was below the wages of the workers during prosperity, and they managed to consume luxuries.


Footnotes:


41: *Capital*, III, P. 268.
REFERENCES:


& Engles. Selected Correspondence. Foreign Languages Pub., House, (no date).


