

viable socialist movement cannot deny the importance of immediate interests, but must adopt strategies which attempt to join immediate and fundamental interests in such a way that the organizational capacities of the working class are strengthened rather than weakened in the process. Revolutions occur not when the masses of the people are willing to abandon all immediate interests for the prospect of realizing fundamental interests, but when the struggle for immediate interests begins to coincide with the struggle for fundamental interests.

Historical Transformations of Capitalist Crisis Tendencies

Introduction

The last chapter ended with a discussion of the complex ways in which class struggle mediates the relationship between class structure and class formation. That discussion was incomplete in one crucial respect. While the model of determination does show the dialectical logic of the analysis of class relations, that model remains indeterminate in a basic sense. There are no "laws of motion," no tendencies of development or dynamics of systematic structural change. Class struggle is said to transform class structure, but such a transformation is completely directionless. The whole schema thus so far remains suspended abstractly in thin air: a logic of historical materialism without history.

The next problem is thus to discover why it is that the structural transformations mediated by class struggle are not random—why they assume a given direction of development. The solution to this problem lies in deciphering the logic of the capitalist accumulation process, specifically by revealing the nature of the contradictions within that process and the crises which those contradictions generate. This is not to say that the dynamics of accumulation mechanistically determine a unique path of development, but rather that the accumulation process generates contradictions, the temporary solutions to which push the development of the capitalist system in specific directions. More concretely, the argument which will be developed in this chapter can be summarized as follows:

1. At different stages of capitalist development, the accumulation process faces different dominant constraints or impediments. These impediments are not exogenous factors which interfere with the accumulation process but are generated by the accumulation process itself.

2. In order for capitalist production to continue, these constraints must be overcome. In a fundamental sense capitalists do not have the choice of passively accepting the impediments to accumulation. As individuals, capitalists must attempt to overcome these impediments in order to survive in a competitive world; as a class, capitalists must strive to remove the impediments to accumulation in order to contain the class struggle.

3. The systemic solutions to the dominant impediments at a given stage of capitalist development generate the new impediments which constrain the accumulation process in the subsequent stage. It is in this sense that the impediments to accumulation can be considered *contradictions* in accumulation rather than merely obstacles to accumulation. They are contradictions because the "solutions" to a particular impediment become themselves impediments to accumulation.

4. The current world-wide capitalist economic crisis can be (tentatively) understood as part of a transition from one pattern of constraints on accumulation, characterized by Keynesian solutions, to a new set of emergent constraints which were in part caused by those very Keynesian strategies in earlier crises and which are no longer amenable to Keynesian solutions.

The chapter will be divided into three sections. Part I will briefly discuss the meaning of accumulation and the reasons why accumulation is such an integral part of capitalist society. Much of this discussion will involve a somewhat painstaking exposition of the basic concepts of Marxist political economy. Such a discussion of basic concepts is necessary both to make the conceptual apparatus of the argument accessible to readers relatively unfamiliar with the Marxist categories, and because many of the debates over the theory of accumulation are rooted in differing conceptualizations of the basic categories. I hope that by making my particular formulations of these concepts quite clear it will be easier for any weaknesses in the more substantive parts of the chapter to be criticized. In part II, this conceptual apparatus will be used to examine the underlying

logic of several potential constraints on the accumulation process. Finally, in part III, these potential constraints on accumulation will be systematically related to the general stages of capitalist development. The chapter will conclude with a more speculative discussion of likely developments in the immediate future.

I. The Meaning of Accumulation

At some stage early in every Marxist textbook of political economy it is stressed that "capital" is not a *thing*, but a *social relation*, and an antagonistic social relation at that. But frequently, after this proclamation is made, the accumulation of capital is substantively treated as the accumulation of things, of the machinery, buildings, raw materials, and so forth that are usually grouped under the rubric "constant capital". This is fundamentally incorrect from a Marxist point of view: capital accumulation must be understood as *the reproduction of capitalist social relations on an ever-expanding scale through the conversion of surplus value into new constant and variable capital*. Before explaining this statement, it will be helpful very briefly to define two of its constituent elements: *capitalist social relations*, and *surplus value*.

1. *Capitalist social relations*.¹ All class societies, whether capitalist or not, can be understood as consisting of two broad categories of people: direct producers, the men and women who produce the goods and services which allow the society to continue; and non-producers—those who live off the production of others. Corresponding to this distinction between classes is an analytic distinction between two categories of labour of the direct producers: "necessary labour" and "surplus labour".

1. Depending upon the problem under study, capitalist social relations can be analysed at several different levels of abstraction. In the previous chapter, we analysed these social relations largely at the level of the social formation, since we were particularly interested in the complexities of class relations that are created by the interpenetration of diverse modes of production in concrete societies. In the present chapter we are primarily interested in analysing the laws of motion and contradictions of capitalism as a mode of production, and thus it will be more appropriate to analyse capitalist social relations at a higher level of abstraction, at the level of the mode of production itself.

Necessary labour constitutes the expenditure of human activity for production of the means of livelihood of the direct producers. *Surplus labour* represents the human activity which produces a surplus beyond the requirements of simply reproducing the direct producers themselves, a surplus which is appropriated by the non-producing classes.

These categories of direct producers and non-producers, necessary and surplus labour, pertain to all class societies. What fundamentally distinguishes one kind of class society from another are the types of social relations between the direct producers and non-producers, and the social mechanisms by which surplus labour is extracted from the direct producers. The characteristic social relations in a capitalist society involve on the one hand propertyless workers who own neither the means of production nor the products of production and are thus forced to sell their labour power—their capacity to produce goods and services—in order to survive, and on the other hand capitalists who own the means of production and purchase labour power on the labour market for the purpose of setting those means of production in motion. The essential social mechanism by which surplus labour is extracted from the direct producers is the creation of *surplus value* in the process of production.

2. *Surplus value*. Much of the Marxist analysis of capitalism revolves around the concept of surplus value, and thus it is important to make this concept as clear as possible. In order to do this it is first necessary to define briefly a number of other concepts.

a. *commodity*: A commodity is something which is produced for exchange rather than simply for its direct use. Whereas in all societies the objects of production must be in some sense useful (or have “use value”), in a capitalist society production in general is primarily organized around exchange.

b. *labour power*: Labour power is a special kind of commodity—human productive capacity sold on a labour market for use in the production of other commodities.

c. *value*: If one wants to analyse the mechanisms by which the social product is divided among the various classes of society, it is necessary to have units for measuring different quantities of products. The most obvious metric, of course, is simply the price

of commodities. This has been in practice the solution to the problem for most economists. But using price as the metric for comparing quantities of products raises the question: what is it that the money attached to a commodity is measuring? What is the theoretical content of the quantitative dimension of the social product that prices tap? If the answer is not to be totally circular, some sort of value theory—i.e., a theory of what constitutes the quantitative dimensions of commodities—is necessary.²

In principle it is possible to measure the total quantity of the social product in any number of ways. One could weigh the total social product and state that so many tons went to the working class, so many tons to the capitalist class. One could calculate the total amount of energy from all sources that went to produce the social product as a measure of the total “machine activity” embodied in commodities. Or, one could measure the total number of hours of human labour that directly and indirectly went to produce the social product. All of these represent some kind of quantitative “value” of the social product. Obviously, for different purposes, different measures of value might be more or less appropriate.

The premise of the labour theory of value is that *if one is interested in understanding the relationship of class forces to social production, then a measure of value based on hours of human labour embodied in commodities is the most useful*. There are two basic justifications for this claim. First, if one is interested in social relations, in understanding dynamics, then a measure of value that directly taps social activity—labour time in production—is attractive. Secondly, it can be shown that the embodied labour time in commodities bears a systematic relationship to the ratios at which commodities exchange.³ This

2. Much of what has come to be known as the “Cambridge capital controversy” concerns the problem of whether or not prices can be considered an acceptable metric of physical capital (or other commodities).

3. See Meghnad Desai, *Marxian Economic Theory*, London 1974, pp. 41–76, and Shinzaburo Koshimura, *Theory of Capital Reproduction and Accumulation*, Ontario 1975, pp. 64–94. The relationship of values (embodied labour times) of commodities to actual exchange ratios among commodities (relative prices) involves two transformations: 1) the transformation of the value of the inputs into the prices of the inputs, or what is usually called the “prices of production”; and 2) the transformation of the prices of production into the concrete market

does not mean that other theories of value cannot also predict exchange ratios. Piero Sraffa has shown, for example, that relative prices can be predicted from a value theory based on a "standard commodity" rather than embodied labour times.⁴ The point is that only the labour theory of value provides a link between the *quantitative* ratios at which commodities exchange and the qualitative social relations which underlie the production process.

Because of the relationship of embodied labour time to the ratios at which commodities exchange, labour time is generally referred to as the *exchange* value of a commodity (to distinguish it from the use value of the commodity). More precisely, the exchange value of a commodity is defined as the average number of hours of labour of average skill and intensity used directly and indirectly in the production of the commodity, or more succinctly, the socially necessary labour time used to produce the commodity.⁵

The precise logical status of the definition is somewhat ambiguous. For many Marxists, the identification of exchange value with socially necessary labour time is a theoretical pre-

prices of commodities. The first of these is the object of the debates over what is called the "transformation problem". A variety of solutions to the transformation problem have been proposed. In the present context it is not necessary to choose between them: all solutions involve a systematic relationship between embodied labour times and prices of production. The second transformation, of prices of production into market prices, lies outside of value theory proper. There are a myriad number of factors other than embodied labour times—relative scarcities, monopoly power, government price fixing, etc.—which enter into the determination of concrete relative prices. The point is that embodied labour represents the characteristic of the commodity itself (as opposed to contingent forces external to the commodity, such as market forces) which influences prices. To the extent that one is interested in the actual market exchange rates between two individual commodities, value theory will be helpful mainly as an indicator of the strength of these external factors. On the other hand, when one is concerned with the relative magnitudes of large aggregates of commodities and the development of the capitalist system as a whole, then value theory becomes much more powerful since one can assume that many of the external contingent factors cancel each other out.

4. *The Production of Commodities by Commodities*, Cambridge 1960.

5. For a discussion of the problems involved in this definition, see Shane Mage, *The Law of the Falling Tendency of the Rate of Profit*, Ph.D. Dissertation, Columbia 1963; Paul Sweezy, *The Theory of Capitalist Development*, New York 1942; and Bob Rowthorn, "Skilled Labour in the Marxist System", *Bulletin of the Conference of Socialist Economists*, September 1974, pp. 25–45.

mise; for others it is a proposition, deduced from prior assumptions. Martin Nicolaus's discussion of surplus value is a good example of the view that embodied labour time is not merely a definition of exchange value. "Marx brings up the central problem of the theory of capitalism and proceeds to solve it. How is it, he asks, that at the end of the production process the capitalist has a commodity which is worth more than the elements that went into it? He pays the price of machinery, raw materials and the price of labour, yet the product is worth more than all three together. What, in other words, is the source of the surplus value (*Mehrwert*) which the capitalist appropriates? The problem is insoluble, Marx writes, so long as 'labour' is considered a commodity like any other commodity (as it was, specifically, in the *Manifesto*). If labour were such a commodity, then capitalist production would be: price of machinery + price of raw materials + price of labour = price of product. Where then is the capitalist's profit? If we evade the question by saying that the capitalist fixes an arbitrary profit percentage and simply adds it to the price of the product, as high as the market will bear, then it appears that the buyer of the commodity is the source of the capitalist's profit. Yet what the capitalist gains in this way, the buyer loses, and it is impossible to see how an aggregate surplus could arise out of such transactions. Marx rejected this mercantilist theory, according to which one nation could get richer only by cheating another in commerce. This theory is overcome, and the problem of surplus value is solved, when one realizes that the worker sells the capitalist not 'labour', but labour power (*Arbeitskraft*). Although its price varies with supply and demand, this specific commodity has the exceptional quality of being able to produce more value than is necessary to reproduce it".⁶

The difficulty with this treatment of value is that one can quite easily conceive of other commodities which can in fact produce a "value" greater than their own costs of reproduction. As Braverman points out: "An ox too will have this capacity, and grind out more corn than it will eat if kept to the task by training and compulsion."⁷ The reason why an Ox theory of

6. Martin Nicolaus, "Proletariat and Middle Class in Marx", *Studies on the Left*, No. 7, 1967, pp. 266–287.

7. *Labour and Monopoly Capital*, p. 56.

value or a machine theory of value is less adequate than the labour theory of value is because we are interested in revealing the relationship of human social activity to the distribution and appropriation of the social product, not the relationship of ox activity or machine activity to distribution.

How then can the labour theory of value help us to understand the mechanisms by which the social product is expropriated from the working class by the capitalist class? As a first approximation, the division of the social product between the working class and the capitalist class can be viewed as the outcome of two social processes: the exchange relationship between labour power and capital, and the production relation between labour and capital.⁸ In the exchange relation, the worker sells a particular kind of commodity to the capitalist: labour power, i.e., the capacity to work. Like all commodities, the value of this commodity is defined by the socially necessary labour time that goes into its production and reproduction. The magnitude of these reproductive costs is in turn determined by various technical considerations (training costs, transportation costs, etc.) as well as by class struggles over wages (what Marx called the "historical and moral elements" in the value of labour power). The point in the present context is that however these reproductive costs are determined, when the worker sells his/her labour power to the capitalist it appears that an exchange of equivalents has occurred: the worker sells the commodity labour power to the capitalist and receives in return a wage more or less equal to the value of the commodity. This is the realm of "freedom, equality, property and Bentham" and the class relations underlying distribution remain opaque.

It is at the level of production relations that the class character of the distribution of the social product is revealed. In production the capacity to work—labour power—is transformed into actual labour, actual new value embodied in commodities. From the point of view of workers, this means that part of each

8. This is somewhat of an oversimplification. Other social processes—in particular taxation, budget policies by the state and monopoly pricing—can also potentially influence the distribution of the social product (i.e. the appropriation of the surplus product by the capitalist class). It is clearly a mistake to view exploitation as simply a consequence of the interplay of exchange and production relations, as many Marxists tend to do. This point will be discussed later in this chapter.

day the worker is labouring to provide the means of livelihood of the worker and his/her family, and part of the day the worker creates new value for the capitalist. This new value is called "surplus value". Looked at from the point of view of the capitalist class as a whole, if accumulation is to take place it is essential that the magnitude of the value created by workers be greater than the value of labour power, i.e., greater than the costs of reproducing the working class.⁹ The extent to which labour power is transformed into actual labour within the production process is thus of crucial importance to the capitalist class. The whole thrust of "scientific management" at the turn of the century was directed towards this end.¹⁰ While in the past fifty years, as we discussed in Chapter 1, more sophisticated approaches to extracting surplus labour may have replaced crude Taylorism in certain industries, the basic problem facing the capitalist class remains the same: how to generate as large a surplus as possible above the socially necessary reproductive costs of labour power.

As was stated at the outset of this discussion of accumulation, the hallmark of all class societies is the appropriation of surplus labour from the direct producers by the dominant classes. In capitalist societies the central mechanism of appropriation is rooted in the specific pattern of exchange relations and production relations discussed above: labour power is sold freely on the market as a commodity, but is coerced within production to produce more value than its own costs of reproduction.

We are now in a position to explain our definition of capital accumulation as the reproduction of capitalist social relations on an ever-expanding scale through the conversion of surplus value into new constant and variable capital. To understand what is meant by "reproduction on an ever-expanding scale" it is first necessary to understand what reproduction on a static scale (or simple reproduction) means. The traditional Marxist

9. While it is essential for the capitalist class as a whole that the reproductive costs of total labour power be less than the value produced by the working class, this is not necessarily the case for any individual capitalist. The individual capitalist may be able to obtain a share of the total surplus value without generating any surplus value in his/her own production process. This is the case, for example, in banking and other totally "unproductive" spheres of capitalist activity.

10. Braverman, *Labour and Monopoly Capital*, pp. 85–137.

conception of simple reproduction is as follows. Imagine an economy with two sectors, one of which produces the means of production, the other of which produces consumption goods. Within each sector, the total value of the commodities produced can be represented by the traditional Marxist formula

$c + v + s = P$ where:

P = the total value produced (gross product).

c = the value of the constant capital
(machines, buildings, raw materials)
used up in production.

v = the value of the labour power used
up in production, or variable
capital. (It is called variable
capital because it produces a
variable amount of new value—
surplus value—in the production
process.)

s = the value of the surplus product
produced by the workers

$v + s$ = the total amount of living labour
time used in production (or the
value of the net product, i.e.,
the gross product minus depreci-
ation, raw materials, etc.).

The simple two sector model would then be expressed in the following way:

sector 1 (production goods):

$$c_1 + v_1 + s_1 = P_1$$

sector 2 (consumption goods):

$$c_2 + v_2 + s_2 = P_2$$

Each of the terms in these equations can be considered simultaneously a supply of and a demand for certain commodities, expressed in value terms: P_1 represents the value of the total supply of production goods; P_2 the value of the total supply of consumption goods; v_1 constitutes that part of the total supply of production goods which must be exchanged for consumption goods in order to reproduce the labour power used in the production of production goods; c_1 represents that part of the total

supply of production goods which must be used to replace the means of production used up in the production of production goods; etc. The equilibrium condition for simple reproduction is that year after year, the magnitude of each of the terms in these equations remains unchanged. That is, the total amount of constant capital used up in production in both sectors is equal to the total supply of constant capital produced in sector 1, and the total consumption by capitalists and workers is equal to the total production of the consumption goods sector. For this to be true, the entire surplus value (s_1 and s_2) must be consumed by the capitalist class.

Expanded reproduction constitutes the situation in which at least part of the surplus value is used to augment the level of constant and variable capital in production. Part of the supply of production goods represented by s_1 is used to increase the level of constant capital, c_1 and c_2 , and part of the supply of consumption goods represented by s_2 is used to increase the level of variable capital, v_1 and v_2 . Expanded reproduction thus consists of the accumulation of both constant capital and variable capital, and the *rate* of accumulation can be expressed as $\frac{\Delta c + \Delta v}{c + v}$.

Since both Δc and Δv come out of surplus value, the *value rate of profit*, $\frac{s}{c + v}$, is often used to indicate the maximum rate of

accumulation possible in a given period.¹¹ It is because accumu-

11. Technically, the ratio $s/(c+v)$ is the rate of profit only when it is assumed that the turnover time for capital stock is one production period. Since the rate of profit is usually measured on total investment (not merely on raw materials and depreciation and wages, i.e., $c+v$), a more complex expression including the capital stock and turnover rates is necessary if longer turnover times are to be included in the analysis. Since I have seen no evidence to indicate that the added complexity of including capital stock in the analysis changes any of the basic relationships, I will use the simpler model throughout this paper, assuming a one-period turnover of constant capital. (For the problem of the time-dating of capital, see Geoffrey Hodgson, "The Falling Rate of Profit", *New Left Review* no. 84, 1974). It should also be noted that throughout this paper I will make no distinction between profit, interest, and rent as components of surplus value. The expression "profit" will be used to designate the total surplus value.

The reason for saying that $s/c+v$ indicates the maximum "possible" rate of accumulation is that surplus value is used for capitalist consumption (among other things) as well as for expanded reproduction. To the extent that the capitalist class has some discretion over the proportion of surplus value reinvested as new capital, it is not necessarily true that an increase in the rate of profit will immediately produce an increase in actual accumulation, and vice-versa.

lation involves an expansion both of the means of production controlled by capitalists and of the size of the working class that it constitutes "the reproduction of capitalist social relations on an ever-expanding scale".

One final issue needs at least brief discussion before we turn to the analysis of the contradictions and impediments in the accumulation process. Why is accumulation so important for the survival of capitalism? Is a stagnant, no-growth, non-accumulating capitalism a viable possibility? The example of the British economy in recent years certainly indicates the possibility of there being a capitalist system in which little accumulation takes place over an extended period of time. Marxists have generally tended to discount the possibility of a return to an economy of simple reproduction under the conditions of advanced capitalism. Paul Mattick, for example, has written: "A non-accumulating capitalism is only a temporary possibility; it is a capitalism in crisis. For capitalist production is conceivable only in terms of accumulation."¹² As will become clear in the rest of the paper, I do not think that a non-accumulating capitalism is an impossibility or that it necessarily leads to economic and social breakdown. But I do think that a non-accumulating capitalism is a precarious capitalism, and that a variety of repressive social mechanisms have to be created or expanded in order to cope with such a situation. This precariousness can be understood at the level of both "capital in general" and "many capitals".¹³ At the level of capital in general, of the capitalist system understood as the essential confrontation of capital and labour, accumulation plays a vital role in containing and channelling the class struggle. Accumulation

12. *Marx and Keynes*, Boston 1969, p. 60.

13. The distinction in the analysis of capitalism between "capital in general" and "many capitals" must not be confused with the common distinction in economics between macro-economics and micro-economics. The micro vs macro distinction refers to the *unit of analysis* under examination: the behaviour of individual firms and consumers in the former case, of the economic system as a whole in the latter. In contrast, the distinction between capital in general and many capitals refers to the *level of abstraction* of the analysis. In the analysis of "capital in general", the capitalist system has been stripped to its barest, simplest essence: the confrontation of capital and labour. The analysis of "many capitals" does not shift the unit of analysis from system to individual, but rather adds complexity to the analysis of the system as such through the discussion of market structures, competition, diverse technologies, etc. To say that the analy-

underpins much of the ideological legitimization of the inequalities of capitalist society. The ever-expanding pie enables the standard of living of the working class to increase slowly without threatening relations of production. At the same time it helps to legitimate the vastly higher standard of living of the capitalist class. A prolonged period of non-accumulation (let alone disaccumulation) would seriously undermine such legitimations and would lead to a considerable intensification of class conflict.

At the level of many capitals, non-accumulation would considerably intensify competition on both a national and an international scale. In a period of general economic growth, the expansion of individual capitals occurs partially because each capitalist tries to increase his share of the market at the expense of other capitalists, and partially because the total size of the market is increasing. In a period of non-accumulation, the latter of these disappears, and all individual expansion takes the form of a zero-sum game. Marx describes such a situation elegantly: "So long as everything goes well, competition affects a practical brotherhood of the capitalist class as we have seen in the case of the average rate of profit, so that each shares in the common loot in proportion to the magnitude of his share of investment. But as soon as it is no longer a question of sharing profits but of sharing losses, everyone tries to reduce his own share to a minimum and load as much as possible upon the shoulders of some other competitor . . . competition then transforms itself into a fight of hostile brothers. The antagonism of the interests of the individual capitalists and those of the capitalist class as a whole then makes itself felt as previously the identity of these interests impressed itself practically as competition."¹⁴

sis of many capitals is at a lower level of abstraction than the analysis of capital in general does not imply that these added complexities are unimportant or that they cannot change the dynamics of the capitalist system in fundamental ways. The method of beginning with the simplest, most abstract conceptualization of capitalism and then moving to the more concrete does not mean that the propositions derived at the most abstract level are unaffected by forces that are analysed at more concrete levels. But this method does mean that the more concrete complexities introduced in the analysis of many capitals acquire their theoretical specificity in terms of their relationship to the analysis of capital in general.

14. *Capital*, Vol. III, New York 1967, p. 253.

Such an intensification of class conflict and capitalist competition does not, however, necessarily imply the end of capitalism. Contradictions can increase and social systems can muddle through, especially if new institutional arrangements are created in the attempt to contain those contradictions. The point of an analysis of contradictions in and impediments to the accumulation process is not to prove the inevitability of the collapse of capitalism, but to understand the kinds of adaptations and institutional reorderings that are likely to be attempted in the efforts to counteract those contradictions. Such an understanding is crucial to the development of a viable socialist politics.

II. Impediments and Contradictions in the Accumulation Process

There has been considerable debate among Marxist political economists over the nature of the essential contradictions in the accumulation process which push the capitalist system towards economic crisis. The contemporary debates on crisis have generally focused on one of four critical impediments to accumulation: 1) the rising organic composition of capital;¹⁵ 2) the problem of realizing surplus value, and in particular problems of underconsumption in capitalist society;¹⁶ 3) a low or falling rate of exploitation resulting from rises in wages;¹⁷ and 4) the contradictory role of the state in accumulation.¹⁸

In this section we will examine the underlying assumptions

15. See Paul Mattick, *Marx and Keynes*; David Yaffe, "The Marxian Theory of Crisis, Capital and the State", *Economy and Society*, Vol. 2, 1973; Mario Cogoy, "The Fall in the Rate of Profit and the Theory of Accumulation", *Bulletin of the Conference of Socialist Economists*, Winter 1973; Shane Mage, *The Law of the Falling Tendency of the Rate of Profit* (cit).

16. Paul Sweezy, *The Theory of Capitalist Development*, New York 1942; Paul Baran and Paul Sweezy, *Monopoly Capital*, New York 1966; Joseph Gillman, *Prosperity in Crisis*, New York 1965.

17. Andrew Glyn and Bob Sutcliffe, *British Capitalism, Workers and the Profits Squeeze*, London 1972.

18. Mario Cogoy, "Les Théories Néo-Marxistes, Marx et l'Accumulation du Capital", *Les Temps Modernes*, September–October 1972; David Yaffe, "The Marxian Theory of Crisis, Capital and the State" (cit); James O'Connor, *The Fiscal Crisis of the State*, New York 1973; Claus Offe, "Structural Problems of the Capitalist State" and "The Theory of the Capitalist State and the Problem of Policy Formation" (cit).

and logic of each of these positions. In the following section I will argue that the four interpretations of crisis are not fundamentally incompatible if they are interpreted in an historical perspective as tapping the changing contradictions of accumulation at different periods of capitalist development.

Two brief comments are necessary before discussing these alternative perspectives on crisis. First, the discussion will focus on economic *crisis*, not simply business *cycles*. While the two kinds of disturbances in economic relations are obviously related, they have a different theoretical status: a crisis implies that in order for accumulation to continue some sort of restructuring of the accumulation process is necessary; a cycle merely implies that there has been some sort of disturbance in accumulation which can be alleviated without any basic structural changes. A given impediment to accumulation, such as the rising organic composition of capital, can function as either a crisis mechanism or a cyclical mechanism, depending upon how it is linked to the total process of accumulation. Indeed, one of the themes which we will explore is how certain factors historically shift from being basic structural obstacles to being cyclical mechanisms and vice versa.¹⁹

Second, most of the discussion of these four impediments to accumulation will be based on the value categories discussed in section I above. It is important to stress that such a value analysis does not exhaust Marxist work on economic crisis. A complete understanding of crisis would also involve an analysis of monetary instability, credit imbalances and other problems strictly in the sphere of circulation. These issues will not be included in the present discussion, since, while such problems are important, it is a theoretical priority to analyse the impedi-

19. Because our concern is with crisis mechanisms, I will not systematically discuss the so-called "disproportionality" theories of crisis, i.e. conceptions of crisis which see the disruption of accumulation as rooted in imbalances between the various sectors of capitalist production, these imbalances themselves being generated by the "anarchy" of capitalist production. While such disproportionalities undoubtedly do occur, it is difficult to make a case that they constitute basic structural obstacles to accumulation which require basic restructuring of the accumulation process. Disproportionalities resulting from the chronically disorganized condition of capitalism are a constant feature of capitalist production and distribution, and while they may aggravate crisis tendencies, they do not themselves constitute a fundamental crisis mechanism in the sense discussed in this paper.

ments to accumulation in terms of contradictions in the sphere of production. It is on these contradictions that the present analysis will be focused.

1. The Organic Composition of Capital and the Falling Rate of Profit

As discussed in part I, it is a fundamental premise of Marxist political economy that only living labour can produce surplus value, and thus profits. The rate of profit, however, is based not merely on labour costs of the capitalist (v) but on all capital costs ($c + v$). Therefore, the reasoning goes, if it should happen in the course of capitalist development that the value of the dead labour used in production should grow much more rapidly than the living labour, there will be a tendency, all other things being equal, for the rate of profit to decline. This constitutes the basic logic for studying the relationship between changes in the productive forces of capitalist society—the technology broadly conceived—and the rate of profit. The “organic composition of capital” is a ratio that is designed to reflect the salient aspects of technology that impinge on the rate of profit. The most useful simple expression for this is the ratio of dead labour (constant capital) to living labour in production:²⁰

20. This expression is not the traditional way that Marxists have defined the organic composition of capital. The usual practice has been to regard the ratio c/v as the organic composition of capital. This has been the usage of economists such as Sweezy, Dobb, Mattick, and Gillman. This expression constitutes the ratio of dead to living capital and is generally treated by these writers as reflecting in value terms what in bourgeois economics is called the capital-intensity of the technology. A number of recent authors—Mario Cogoy, Shane Mage and David Laibman—have argued that the ratio c/v is not an adequate measure of capital intensity, since the level of v depends in part upon the rate of exploitation and not merely on the relative amounts of constant capital and human labour in production. The ratio of dead labour to living labour in production, $c/v + s$, has therefore been substituted for the ratio of constant capital to variable capital. While Marx himself is somewhat ambiguous in his own usage of the various expressions, it is possible to interpret a number of important passages in *Capital* as indicating that his notion of the organic composition of capital is best represented by this ratio. (See especially Marx's discussion at the beginning of section 1 of chapter XXV in Vol. I of *Capital*, “The General Law of Capitalist Accumulation”. For a discussion of this section of *Capital*, see Cogoy “The Fall in the Rate of Profit”, pp. 56–57.) In practical terms it is not terribly important which ratio is used. None of the significant results which we will derive below are substantially different if c/v is used instead of $c/v + s$. Nevertheless, since the ratio of dead to living labour in production is a closer reflection of the technical relations of production, we will adopt it throughout this discussion.

$$Q = \frac{c}{v + s}$$

One other expression, the rate of exploitation (also called the rate of surplus value), will be important in the discussion of the falling rate of profit. The rate of exploitation is defined as the ratio of the unpaid to the paid portions of the working day (see the discussion of surplus value above), or, alternatively, the ratio of surplus value to variable capital:

$$e = \frac{s}{v}$$

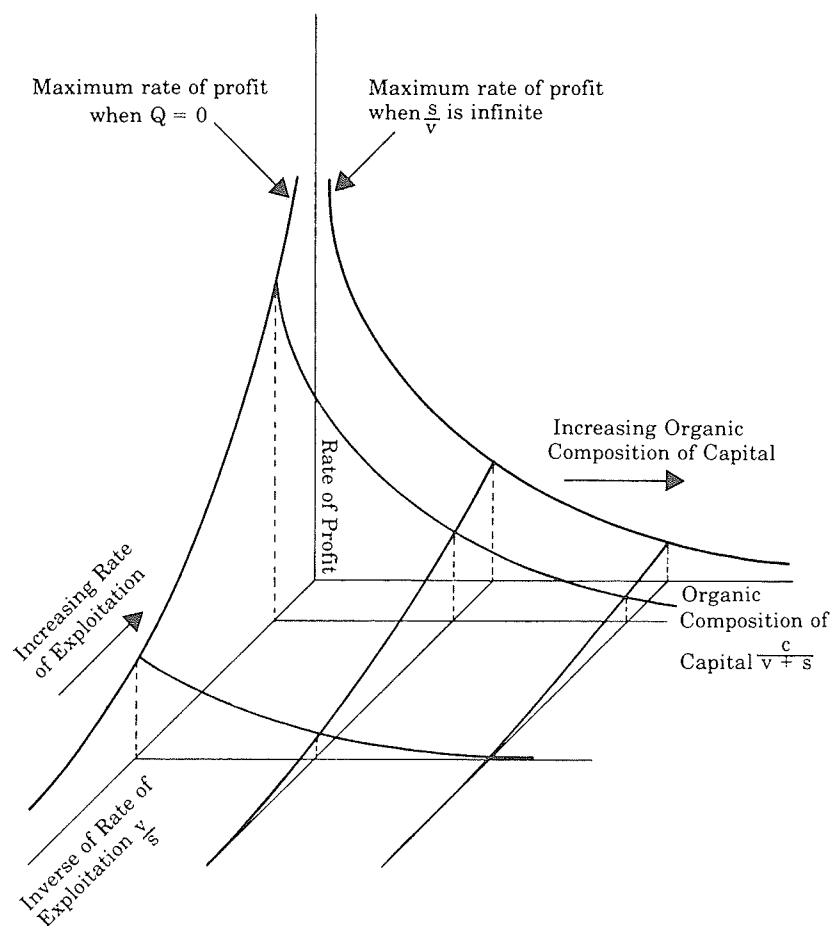
One note of caution before we proceed further. It is very important not to interpret the rate of surplus value, s/v , as an expression simply reflecting the state of class struggle, and the organic composition of capital as an expression simply reflecting the nature of the technology. Both ratios are affected by both class struggle and technology, although in different ways. The average level of productivity in the society, especially in the wage goods sector, has a direct bearing on the rate of surplus value; and the class struggle has a direct bearing on the length of the working day and the intensity of work, and thus on the denominator of the organic composition of capital. While we will interpret the organic composition of capital as *reflecting* technical relations, this does not imply that it is a purely technical coefficient.

Using the expression $Q = \frac{c}{v+s}$ for the organic composition of capital, and $e = \frac{s}{v}$ for the rate of exploitation, we can write the rate of profit as:

$$r = \frac{s}{c + v} = \frac{s/(v + s)}{\frac{c}{v+s} + \frac{v}{v+s}} = \frac{e/(1+e)}{Q + 1/(1+e)} = \frac{e}{Q(1+e) + 1} \quad (1)$$

This function is graphed in Figure 3.1 (for convenience in this graph, the reciprocal of the rate of exploitation is used).

Equation (1) and Figure 3.1 will help us to explain the theory of the falling tendency of the rate of profit. There are six propositions in the argument:



Note: In this figure, intersections of vertical planes parallel to the exploitation/rate of profit plane with the profit surface represent the rate of profit as a function of exploitation for fixed levels of the organic composition of capital. Intersections of vertical planes parallel to the organic composition/rate of profit plane represent the rate of profit as a function of the organic composition of capital for fixed rates of exploitation. The intersection of a horizontal plane with the profit surface represents the locus of points with a common rate of profit.

Figure 3.1 The Rate of Profit as a Function of

$$\frac{c}{v+s} \text{ and } \frac{v}{s}$$

1) There are forces intrinsic to the process of capital accumulation which tend to raise the level of the organic composition of capital.

2) As the organic composition of capital rises, there is a tendency for the rate of profit to fall *unless* the rate of exploitation increases sufficiently to counter-balance the rise in the organic composition of capital (or unless some other counteracting force intervenes).

3) In the long run, rises in the rate of exploitation cannot completely counteract the rising organic composition of capital, and thus there will be a definite tendency for the rate of profit to decline.

4) When the decline in the rate of profit becomes sufficiently serious and can no longer be compensated for by the existing rate of exploitation, an economic crisis occurs: the least profitable capitals disappear as businesses go bankrupt; and capitalists increasingly withhold investments because there are no profitable outlets. Aggregate demand, which is fundamentally derived from the rate of accumulation, therefore declines with the result that the crisis takes on the *appearance* of a crisis of overproduction of commodities. Whereas under-consumptionists (see below, subsection 2) argue that the crisis is caused by an overproduction of commodities, by an overproduction of surplus value, the theory of the falling rate of profit argues the exact opposite. "Because *not enough* (surplus value) has been produced, capital cannot expand at a rate which would allow for the full realization of *what has been* produced. The relative scarcity of surplus-labour in the production process appears as an absolute abundance of commodities in circulation."²¹

5) These conditions of crisis, however, serve the function of restoring conditions favourable for subsequent profitable accumulation. Several mechanisms accomplish this: a) unproductive capital is eliminated from the market, thus leaving the remaining capital at a higher level of productivity; b) in addition, when individual capitals go bankrupt they are forced to sell their existing constant capital at prices below real exchange values. The devaluation of capital means that in the aggregate the numerator in the organic composition of capital declines,

21. Mattick, *Marx and Keynes*, p. 79.

thus raising the rate of profit; c) finally, workers are thrown out of work, the reserve army of the unemployed swells, and capitalists can push wages below their value, thus increasing the rate of exploitation. Once these processes have advanced sufficiently to restore an acceptable rate of profit, accumulation resumes and the crisis ends.

6) While the crisis tendency of capitalist society takes the form of periodic business cycles, there is also an overarching tendency for cycles to become progressively more severe. Each successive crisis occurs at a higher level of accumulation and thus a higher level of the organic composition of capital. The problems of restoring conditions for renewed profitable accumulation thus tend to become more difficult in each successive crisis.²²

With slight variations, these six propositions are all held by proponents of the theory of the falling tendency of the rate of profit. The first three constitute the heart of the theory, for if it can be demonstrated that there is a tendency for the rate of profit to fall, the particular conception of how this in turn produces economic crisis and how economic crisis itself restores conditions of renewed accumulation follows fairly naturally. We will therefore concentrate our attention on the first three propositions.

The second and third of these can be dealt with purely formally in terms of equation (1). It is immediately obvious from equation (1) that for any fixed value of the rate of exploitation, the rate of profit becomes simply a function of the inverse of the organic composition of capital. Thus, if Q rises and e remains constant, the rate of profit will necessarily fall. The second proposition in the argument therefore follows immediately from the definitions of r , Q , and e .

The validity of the third proposition is less obvious. While it is clear that if the organic composition were to rise to infinity even an infinite rate of exploitation could not counteract the fall in the rate of profit, this limiting case is not very helpful for understanding the movements of the rate of profit in the real world. What we would like to know is the extent to which a rise in the organic composition of capital will constrain the accumu-

lation process at *any* arbitrary level of Q , and not just in the limiting case where Q is infinite. One way of examining this problem is to ask if the extent to which the rate of exploitation can function as a counteracting force is itself affected by rises in the organic composition of capital. It is easy to show using elementary calculus that as the organic composition of capital rises, the rate of profit becomes progressively less sensitive to changes in the rate of exploitation.²³ Thus, not only does a high organic composition of capital produce a lower possible profit, but it also makes changes in the rate of exploitation less useful as a strategy for bolstering the rate of profit. Furthermore, the higher the rate of exploitation already is, the less sensitive will the rate of profit be to subsequent changes in the rate of exploitation. Thus, *if* in fact there is a secular rise in the organic composition of capital, then, even if the rate of exploitation also increases it becomes progressively less likely that it will be able to counteract completely the rising organic composition of capital. It is, therefore, quite reasonable to regard rises in the organic composition of capital as a significant impediment to the accumulation process, and equally reasonable to assume that if it does tend to rise, complementary rises in the rate of exploitation will not be able to counteract the fall in the rate of profit in the long run.

The first proposition in the argument is the most problematic. Neither the empirical demonstrations of a general tendency for the organic composition of capital to rise over time, nor the theoretical arguments marshalled in its support, have been particularly convincing. It is unquestionably true that in *physical* terms the amount of machines, raw materials, buildings,

23. Using the definition of the rate of profit in equation (1), take partial derivatives with respect to the rate of exploitation:

$$r = \frac{e}{Q(e+1) + 1}$$

$$\frac{\partial r}{\partial e} = \frac{[Q(e+1) + 1] - Qe}{[Q(e+1) + 1]^2} = \frac{Q + 1}{[Q(e+1) + 1]^2}$$

Since Q appears in the denominator at a higher power than in the numerator, equation (2) indicates that as the organic composition of capital rises, a given change in the rate of exploitation will produce a smaller change in the rate of profit.

22. Mattick, *Marx and Keynes*, p. 69.

etc., per worker has vastly increased with capitalist development. But the organic composition of capital is a *value* concept, and it is far from obvious that the value of constant capital per worker has risen or has a tendency to rise, especially in the later stages of capitalist development.

For the value of constant capital per worker to rise there must be a net excess of labour-saving technological innovations (innovations which substitute machinery for labour power) over constant *capital-saving* innovations (innovations which substitute cheap machines—machines that require relatively little socially necessary labour time to produce—for expensive machines). When Marx wrote *Capital*, this was a fairly plausible assumption to make. Although Marx did recognize the possibility that increasing productivity in the capital goods sector of the economy might result in a “cheapening of the elements of constant capital”,²⁴ he regarded this as at most a transient counter-tendency to a generally rising organic composition of capital. In Marx’s view, progressive introduction of labour-saving technologies was an intrinsic part of the accumulation process.

Two arguments have been urged as to why labour-saving innovations should on balance outweigh constant-capital-saving innovations. The first emphasizes the relationship between labour-saving innovations and the labour market. Assume for the moment accumulation without any net direction to technical innovations (i.e. there is a rough balance between labour and capital saving innovations). Under these conditions, the expansion of capital will eventually exhaust the available supply of workers, since the working population is finite. Yaffe argues: “On the one hand we have capital as ‘value in process’, as value attempting to expand itself without limit, and on the other we have population, the limited basis of that expansion.”²⁵ There may, of course, be periods in which there is a relative abundance of available exploitable labour, periods with a large reserve army of the unemployed. During such periods there would not be especially strong pressures for specifically labour-saving innovations. But eventually, as capital expands, it will confront the limit of exploitable labour power,

and thus further expansion will require labour-saving, not constant-capital-saving, innovations. Each individual capitalist will experience this situation as a “tight” labour market with rising wage costs and will thus look for new machines which will displace labour. The aggregate effect of such individual decisions will be a rise in the organic composition of capital.

The basic weakness in this argument is the assumption that the “normal” condition for capitalist development is a limited supply of labour. While it is undoubtedly true that there have been periods when there were general shortages of labour, it is equally plausible to characterize the “normal” state of capitalism as one of an overabundance of exploitable labour. This is especially true if the pool of exploitable labour is seen on a world scale rather than simply a national scale. When capitalists face tight labour markets they are as likely to deal with the problem through the importation of masses of foreign labour as they are through the introduction of new technologies. This is hardly to deny that labour-saving innovations are important, but merely to say that it is difficult to explain them strictly in terms of the “limited size of exploitable labour power”.

The second argument for why there should be a systematic tendency for labour-saving innovations to outweigh constant-capital-saving innovations places more stress on class struggle in general than on the limits of the labour market. There is one fundamental difference between machines and workers. Machines do not resist capitalist domination. Capitalists seek to replace workers with machines not simply because of the technological advantages that may result from the innovation, but because workers organize to resist exploitation. The intensity of that resistance may vary with the tightness of the labour market, but it is class struggle rather than the labour market as such which is the crucial pressure for labour-saving innovations.

This is certainly a compelling argument. There is a sense in which, for the *individual* capitalist, the perfect factory would be one that was totally automated, which the owner could simply turn on in the morning and turn off at night.²⁶ The question,

26. While the 100% automated factory might be a fantasy of the individual capitalist, it would clearly be a disaster for the capitalist class, since without labour in production there would be no surplus value, and thus no profits. It is

24. *Capital*, Vol. III, p. 236

25. “The Marxian Theory of Crisis, Capital and the State”, p. 195.

then, is whether or not there are other systemic pressures faced by capitalists which would tend to generate capital-saving innovations, potentially in excess of labour-saving innovations. No one, of course, denies that such capital-saving innovations occur. Indeed, the existence of such innovations was one of the "counter-tendencies" to the rising organic composition of capital discussed by Marx. The question, however, is whether such innovations are systematically produced within capitalism. As Yaffe argues: "Unless such inventions are continually re-occurring the general tendency of the organic composition to rise would reappear . . . To give any more significance to such inventions it has to be shown that, *necessarily*, they must continually re-occur."²⁷

Real capitalists are under constant pressure to innovate because of competition with other capitalists, not simply class struggle with workers, and in the competitive struggle it does not matter whether costs are cut by savings on labour or on constant capital.²⁸ In fact, a strong argument can be made which suggests that in advanced capitalist economies, there should be a tendency for an increase to occur in the pressures for capital-saving innovations relative to labour-saving technological innovations. In earlier periods of capitalist development, when mechanization was first occurring, the introduction of machines necessarily implied the substitution of machines for workers. Once an industry is fully mechanized, however, all innovations tend to take the form of machines replacing machines. Even if such machines do in fact still replace workers, there is no reason

precisely this contradiction between the imperatives facing the individual capitalist and the requirements of the capitalist system which, in the classic Marxist view, lies at the heart of the rising organic composition of capital and the resulting crisis tendencies in capitalist society.

27. "The Marxian Theory of Crisis, Capital and the State", p. 198.

28. Yaffe insists that all of the essential characteristics of the laws of motion of capital and the resulting crisis mechanisms can be derived strictly at the level of "capital in general". Thus, he argues it is unnecessary (even irrelevant) to examine questions of competition among capitalists. At the level of abstraction of capital in general, Yaffe is quite right that the only coherent pressure for technological change comes from the basic capital-labour antagonism. But, unless Yaffe can show that in principle the more "abstract" pressure inevitably carries greater concrete weight in determining the balance between labour-saving and capital-saving innovations, there is no a priori reason to assume that capital saving innovations will be an insignificant social reality.

why they should not also be cheaper machines. In the competitive struggle among the producers of machines, after all, there will be attempts to expand markets by producing less expensive machines (i.e., machines that take less total labour to produce) as well as more productive machines (i.e., machines which produce more output per total labour input).²⁹

Furthermore, it might also be expected that as constant capital increases as a proportion of total costs (i.e., as the *value* composition of capital, c/v , rises), individual capitalists will tend to be more concerned about saving on constant capital. A capitalist in a high technology industry in which vast amounts of constant capital are used per worker is likely to be less concerned about cutting labour costs, than about cutting costs of machinery, energy, raw materials, etc. A plausible model for the rate of increase in the organic composition of capital could postulate that, all other things being equal, the *net* rate of labour-saving innovations over capital-saving innovations is inversely related to c/v (or directly related to the proportion of labour costs in production). Thus, as the organic composition of capital rose, it would tend to rise at a slower and slower rate, perhaps even asymptotically approaching some high, relatively stable level.

Finally, even if it should happen that in highly mechanized industries the organic composition of capital continues to rise, the aggregate social level of the organic composition might remain constant if there were a relatively faster rate of growth in unmechanized sectors of the economy. The enormous growth of "service sector" employment, which is typically highly labour-intensive, could counterbalance the continuing growth

29. Perhaps the most startling example of such constant-capital-saving innovations in recent years is the production of miniature electronic calculators and computers. Even the most complex pocket calculators cost a fraction of the mechanical calculators which they replaced. While it is always somewhat problematic to make a judgement about values from prices, the old mechanical calculators certainly embodied much more labour than the new electronic calculators. While they have undoubtedly resulted in replacing some living labour as well, the savings in constant capital are clearly much greater. As a result, in labour processes involving calculators, the introduction of miniaturized printed circuits has considerably lowered the organic composition of capital.

in capital intensity in the industrial sector.³⁰ The tendency for the competitive labour-intensive sector of the economy to grow in a symbiotic relation with the monopoly sector would also tend to counter to some degree the rise in the *aggregate* organic composition.³¹

All of these pieces of suggestive reasoning indicate that while a thorough model predicting the relative proportions of labour-saving and capital-saving innovations has yet to be worked out, there is no a priori reason to assume a general preponderance of labour-saving innovations in a developed capitalist economy.

The empirical evidence is at best indecisive on the question of whether or not the organic composition of capital has risen, done nothing, or even fallen. Since national income accounts are not figured in terms of embodied labour times, and since data on capital invested includes many entries that Marxists would not even consider capital, it is of course highly problematic how data on the organic composition could be reliably gathered. Even as strong a proponent of the rising organic composition thesis as Cogoy has to admit that the meagre data which support his views are as equivocal as the data which oppose them.³²

If the theoretical basis is weak for assuming there is a tendency for the organic composition to rise, and if the empirical evidence is non-existent, why bother with the theory at all? There are several reasons. First, while there is considerable dispute about the relevance of the theory of the rising organic composition of capital to late 20th century capitalism, there is general agreement among Marxists that it was a significant characteristic of 19th century capitalism. As we will see in section III of this chapter, the theory of the rising organic com-

30. For the moment I am ignoring the thorny question of the distinction between productive and unproductive labour and how these categories relate to the organic composition of capital. Clearly, if the service sector is categorically considered unproductive labour, then it would not in any sense offset the rising organic composition in the industrial, productive sector of the economy. The point here is that the social aggregate organic composition may be the result of a complex pattern of relative changes in the size of high-capital-intensity and low-capital-intensity sectors, rather than being merely the result of the growth of the organic composition in already high-capital-intensity sectors of the economy.

31. See O'Connor, *The Fiscal Crisis of the State*, Chapter 2.

32. "Les Théories Néo-Marxistes", p. 63.

position of capital is essential for a historical understanding of the development of capitalist accumulation.

Second, even if it is true that there is no consistent long term tendency for the organic composition of capital to rise, the organic composition still acts as a real constraint on the accumulation process. The results we discussed above indicate that when an economy is in a situation of relatively high organic composition of capital, the rate of profit becomes less sensitive to increases in the rate of exploitation. This means that if the rate of profit were to decline because of some factor other than the organic composition of capital (for example, the growth of unproductive expenditures), the system would be more rigid because of the high organic composition. No one has argued that the organic composition of capital has fallen to any great extent in the past several decades, and thus one can say that it still acts as an impediment to accumulation, even though it may not be the great dynamic source of crisis that its defenders claim.

Finally, even if a secular rise in the organic composition of capital is not the general cause of capitalist crisis, a destruction of values and a corresponding temporary fall in the organic composition of capital may be a crucial part of the solution to cyclical crises. The movement of the organic composition of capital over the past century could be hypothesized to look something like Figure 3.2.³³ Sometime during the first quarter of the 20th century, according to this hypothesis, a relatively stable, fairly high level of organic composition of capital was reached. Since that time, the organic composition of capital has dropped considerably during periods of crisis, and then risen back to this stable level during periods of prosperity as post-crisis un-devaluated constant capital replaced the cheap, devaluated capital acquired during the crisis. A fall in the organic composition of capital can be a solution of crisis without a rise in the organic composition being the fundamental cause of crisis. Under these assumptions, if it should happen that institutional changes in the economy—in particular, growth of government subsidies of inefficient monopolistic firms—should

33. See David Levine's argument in *Accumulation and Technical Change in Marxian Economics*, Unpublished Ph.D. dissertation, Yale University, 1973. Its implications will be more fully discussed when we place the theory of the crises in a more historical perspective in Part III.

block the fall in capital values during a crisis, then it would be expected that a serious "crisis of crisis management" might occur. The issue will be more fully discussed in section III below.

2. Underconsumptionist Theories of Economic Crisis

Marx very explicitly states in the *Grundrisse* that the inherent tendency for the rate of profit to fall is "the most important law of modern political economy and the most essential for understanding the most difficult relationships. It is the most important law from the historical standpoint."³⁴ But he also makes a number of statements which some Marxists have taken to indicate that Marx supported an underconsumptionist view of crisis. "The ultimate reason for all real crisis", Marx writes in *Capital*, Vol. III, "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."³⁵

As often happens in debates among Marxists, the dispute between the two positions has frequently taken the form of competing exegeses of passages from *Capital*. On that score it seems to me that the proponents of the falling rate of profit probably have the upper hand. While Marx did see the underconsumption of the masses as a chronic state in capitalist society, it only became a factor in crisis given the dynamics of accumulation and the problem of the rising organic composition of capital. Engels states this position very clearly: "The underconsumption of the masses, the restriction of the consumption of the masses to what is necessary for their maintenance and reproduction, is not a new phenomenon. It has existed as long as there have been exploiting and exploited classes. . . The underconsumption of the masses is a necessary condition of all forms of society based on exploitation, consequently also of the capitalist form; but it is the capitalist form of production which first gives rise to crises. The underconsumption of the masses is therefore also a prerequisite condition for crises, and plays in them a role which has long been recognized. But it tells us just as little why crises exist today as why they did not exist

34. *Grundrisse*, Penguin/NLR 1973, p. 748.

35. Moscow, 1962, p. 472-3.

before."³⁶ A correct exegesis of Marx, however, does not necessarily make a correct interpretation of the world. The cogency of underconsumptionist views must be assessed on the strength of their logical status, not on their formal agreement or disagreement with Marx's own work.

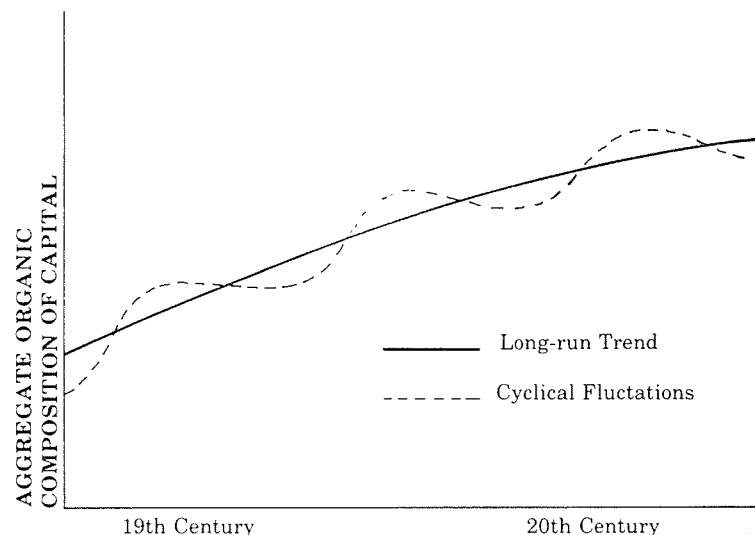


Figure 3.2 Hypothesized Trend in the Organic Composition of Capital

One of the initial problems in assessing the underconsumptionist logic is that most writings from the underconsumptionist perspective fail to lay out the assumptions and structure of the argument in as coherent a way as the falling-rate-of-profit theorists. The following account of underconsumptionist theory is thus not taken directly from any one defender of the perspective. It is rather my own construction of what I feel a coherent Marxist underconsumptionist theory would be.

36. *Anti-Dühring*, Moscow 1959, p. 395.

A Marxist theory of underconsumption contains four basic propositions:

- 1) There is a general tendency in capitalist society for the absolute level of surplus value to rise. In addition, with increases in productivity, there is a tendency for the rate of surplus value to increase as well.³⁷
- 2) There is an intrinsic contradiction in capitalist society between the conditions of production of surplus value and the conditions of the realization of surplus value. For realization *not* to be a problem, the growth in aggregate demand must occur *not* at the same rate as the growth in surplus value. This is always problematic in capitalist society since individual capitalists always try to minimize their wage bills and thus restrict the development of effective demand on the part of workers. The result is that there will be a tendency for the growth of demand to lag behind the growth of surplus value unless new sources of aggregate demand can be created (e.g., through increases in government spending, increases in foreign markets, increases in consumer credit, and increases in the rate of accumulation itself.) In the absence of such new sources of demand, part of the surplus value will remain unrealized.
- 3) The inability of capitalists to realize the full value of the produced surplus value is experienced by capitalists as a fall in the actual rate of profit. This leads to a reduction of investment, bankruptcies, unemployment, etc. Such crisis conditions are resolved when some exogenous source of new demand—such as the state—steps in and restores conditions of profitable realization of surplus.
- 4) While underconsumptionist tendencies are present at all stages of capitalist development, they become especially acute, and become the source of serious economic crisis, only in the monopoly stage of capitalism. Monopoly power greatly augments the tendency for surplus value to rise, and thus the tendency for underconsumption to occur.

37. Note that this proposition states merely that there is a *tendency* for the rate of exploitation to rise with increases in productivity. Like all tendencies there may be counteracting forces which blunt, or even reverse, the tendency itself. In particular, to the extent that wage struggles raise the real wage more or less in step with labour productivity, the tendency for the rate of surplus value to rise will decrease.

There is relatively little disagreement over the first of these propositions. With some exceptions most Marxists feel that with increasing productivity, the *value* of wage goods tends to fall and that thus, although the standard of living of workers may even rise in real terms, the value of labour power will also tend to decline. This results in an increase in the rate of surplus value and, with expanded reproduction of capital, an increase in the mass of surplus value as well. While the underconsumptionists and the falling-rate-of-profit theorists disagree vehemently on the relationship of monopoly to a rising rate of surplus value, they agree on the general proposition that it tends to rise.

On the second proposition there is no such agreement. The falling-rate-of-profit theorists insist that realization problems are a consequence rather than a cause of the fall in the rate of profit. Cogoy makes perhaps the most categorical statement of this view when he argues (in a somewhat cryptic way): "Since total demand under capitalism represents accumulation (demand for subsistence goods represents accumulation, that is accumulation of variable capital), the organic composition determines which part of the total demand consists of demands for subsistence and which for means of production. Thus a falling-off of demand must stem from capital, and capital discontinues its demand only when the profits fall. Thus logically, we can only deduce the over-production of commodities from the fall in the rate of profit and not vice versa."³⁸

If all aggregate demand is derived from accumulation, and if capitalists are constantly striving to maximize the rate of accumulation, then clearly the only reason there can ever be an effective demand inadequate for absorbing all of the produced surplus value would be that something happened to the rate of accumulation. This is precisely what the theory of the rising organic composition of capital attempts to demonstrate.

The problem with Cogoy's reasoning, and that of similar critics of underconsumption theories, is that aggregate demand in capitalist society is not simply derived from accumulation. Especially under monopoly conditions, a sizable part of total demand does not come directly from accumulation but from such non-accumulating sources as capitalist personal consumption, much of state expenses, and so on. From the point of

38. "Les Théories Néo-Marxistes", p. 64.

view of the rising-organic-composition theorists this would change nothing fundamental about the problem. Since the rising organic composition of capital creates a problem of inadequate surplus value, such "unproductive expenses"³⁹ (often called luxury expenses or waste expenditures) would merely exacerbate the problem whose root cause lay in the production process. But things become quite otherwise if we drop the assumption of a rising organic composition of capital.

To analyse the underconsumption problem it is useful to introduce a distinction between potential profits and actual profits. Potential profits are those that would occur in the absence of any realization problems. In terms of our previous discussion, potential profits constitute the surface on Figure 3.1 and the value expression in equation (1). Actual profits will always be less than or equal to such potential profits. The underconsumption argument is an analysis of why there are *tendencies* for a portion of the surplus to remain unrealized, and thus for actual profits to fall short of potential profits.

If the organic composition of capital is more or less constant and the rate of exploitation is rising, there will necessarily occur a rise in the rate of potential profits in value terms. The question then becomes, what are the equilibrium conditions such that all of this increasing surplus will be realized? That is, what total demand must be forthcoming so that the entire surplus product in value terms will be sold? From the basic value equation we have the total supply of commodities:

$$\text{Supply} = c + v + s$$

and the total demand for commodities:

$$\text{Demand} = c + v + \Delta c + \Delta v + U = c + v + I + U,$$

where Δc and Δv are the demand for additional constant and variable capital or new investment (I) (i.e., the demand derived from accumulation), and U is the demand for unproductive expenditures. The equilibrium condition is therefore:

$$c + v + s = c + v + \Delta c + \Delta v + U$$

39. It must be stressed that the expression "unproductive" is being used in a non-normative sense. An expenditure is unproductive in capitalist society if it does not contribute directly or indirectly to the production of value and surplus value. Some of these expenditures might in fact be "productive" in terms of meeting human needs, but they are not productive in terms of the functioning of a capitalist economy.

or simply:

$$s = \Delta c + \Delta v + U = I + U. \quad (3)$$

Dividing each side of this equation by total capital, $c + v$, we have:

$$\frac{s}{c + v} = \frac{I}{c + v} + \frac{U}{c + v}. \quad (4)$$

In this equation, the left hand side is simply the potential profit rate, r ; $I/c + v$ is the rate of investment, I' (or the rate of accumulation) and $U/c + v$ can be considered the rate of unproductive utilization of resources, U' .

Differentiating both sides of the equation with respect to t , we get:

$$\frac{dr}{dt} = \frac{dI'}{dt} + \frac{dU'}{dt} \quad (5)$$

What can we say about the relative magnitudes of these various terms? Given the assumption of a stable organic composition of capital and a rising rate of surplus value, we know that dr/dt must be positive. Can we say anything general about the relationship between the other two terms? With the assumptions we have made so far, we cannot. But if we are willing to assume that accumulation occurs at a constant rate, then we know that dI'/dt must equal zero. Under this assumption we then know that the requirement for equilibrium is that the rate of unproductive spending must grow at the same rate as the potential rate of profit.

The assumption that accumulation occurs at a constant rather than an ever increasing rate may seem somewhat questionable. In fact, of course, this assumption can be relaxed somewhat and it will still be necessary for the rate of unproductive spending to increase in order for the equilibrium condition to be met (i.e., in order for all of the surplus value produced to be realized). The crucial point is that, unless it is assumed that the *rate* of accumulation increases exactly as fast as increases in the rate of profits,⁴⁰ then a growth in the rate of

40. This is in fact the assumption that is made by the falling-rate-of-profit theorists who routinely equate the rate of profit and the rate of accumulation. They argue that since capitalists want to maximize the rate of accumulation, they will necessarily accumulate as much of their profits as possible. Capital-

unproductive expenditures must occur if the equilibrium conditions are to be met.

The tendency towards underconsumption in capitalist society stems fundamentally from the fact that there are no automatic mechanisms which guarantee that the rate of unproductive demand will grow sufficiently fast to fill the gap between the rate of accumulation and the rate of potential profit. The demand for unproductive, wasteful consumption does not grow spontaneously in the same way that demand directly derived from accumulation grows automatically with economic growth. Waste is a social invention, and the maintenance of high levels of wasteful consumption requires conscious planning and intervention. The growth on a massive scale of consumer credit, built-in obsolescence of many consumer durables, the wide range of state interventions in the economy of the Keynesian variety, and so forth, all represent conscious strategies to increase the rate of unproductive demand and thus avoid realization/underconsumption crises.⁴¹ As we will see in section III, these solutions themselves create new problems which the capitalist economy is only beginning to face.

While underconsumptionist tendencies are present at all stages of capitalist development, they have remained largely latent until the monopoly stage. As long as the organic composition of capital did have a tendency to rise, much of the rising surplus was in fact automatically absorbed by the accelerating rate of investment (of accumulation). With the emergence of monopoly capital, however, the situation decisively changes. To begin with, as has already been mentioned, there appears to be a tendency for the organic composition of capital to be relatively stable in the monopoly stage of capitalism, or at least to rise at a much slower rate. Several mechanisms might explain this. The typical productivity bargains worked out between big unions and monopoly capital may have reduced the selective pressures for labour-saving innovations in monopoly capital. Or alter-

ists, however, are individually interested in maximizing their rate of profit rather than the aggregate rate of accumulation, and there is no reason to suppose that these two are inevitably equivalent.

41. Any concrete commodity can, of course, represent both accumulation and waste. The distinction being made is an analytical one, not between different categories of concrete commodities.

natively, since monopolies tend to emerge in industries with already high levels of organic composition of capital, (i.e., high barriers to entry), it might be expected that the rate of increase in the organic composition of capital in the period of monopoly capital would tend to be lower (assuming, as we did above, that the rate of labour-saving innovations is inversely proportional to the value composition of capital). Whatever the explanation, this relatively stable organic composition of capital characteristic of developed monopoly capital, will tend to accentuate the problem of rising surplus.

Monopoly capital has a second, and probably more important impact on the tendency towards underconsumption. In a fundamental way, monopoly power transforms the relationship between values and prices. This is an extremely controversial issue and is one of the most heated disputes between the organic composition theorists and the underconsumptionists. The falling rate of profit theorists insist that the structure of market relations can in principle have no fundamental impact on value relations. All that monopoly power can hope to change is the distribution of surplus value from less monopolistic to more monopolistic capitals, but it cannot have any effect on the analysis of capital-in-general.

Sweezy has challenged this view head on. He argues that not only does monopoly power result in a redistribution of value from competitive to monopoly capital, but from wages to surplus value: "Monopoly does not change the total *amount* of value produced—except indirectly to the extent that it affects the total volume of employment—but it does bring about a *redistribution* of value. Marx indicated that this can take two forms: first a transfer of surplus value from competitive to monopolistic capitals; and second, a transfer of value from wages to surplus value."⁴²

42. *The Theory of Capitalist Development*, p. 41. The passage from Marx to which Sweezy refers is worth noting: "If a commodity with a monopoly price should enter into the consumption of the labourer, it would increase the wages and thereby reduce the surplus value if the labourer would receive the value of his labour power the same as before. But such a commodity might also depress wages below the value of labour power, of course only to the extent that wages would be higher than the physical minimum of subsistence. In this case the monopoly price would be paid by a deduction from real wages (that is, from the quantity of use values received by the labourer for the same quantity of labour) and from the profit of other capitalists." This is certainly a clear statement that

This means that surplus labour is extracted from the working class through at least two mechanisms during the stage of monopoly capital rather than merely one: in addition to the extraction of surplus value in the labour process itself through the wage contract, surplus value is appropriated in the sphere of circulation through the manipulation of monopoly prices. Why don't workers then organize and force monopoly capital to pay wages equal to the "true" value of labour power? The answer, of course, is that the working class *in the monopoly sector* does precisely this, and by and large wages in the monopoly sector have tended to rise approximately at the same rate as productivity. But workers outside of the monopoly sector of the economy have not been able to raise their wages in a comparable manner. The result is that monopoly sector capitalists in effect extract surplus value from competitive sector workers (and transfer surplus value from competitive sector capitalists) through the mechanism of monopoly pricing. The upshot of all this is that the aggregate rate of surplus value under conditions of monopoly capital rises more rapidly than productivity, and thus the general problem of underconsumption becomes even more acute.

Two general social processes have evolved which at least partially counteract this tendency towards underconsumption in monopoly capitalist society. The first has already been mentioned: the invention and growth of Keynesian policies designed to stimulate aggregate demand through the expansion of unproductive spending, primarily by the state. Such spending has the secondary consequence of bolstering the confidence of investors in the stability of the economy, and thus fostering a higher rate of accumulation. Thus, in equation (5), the growth of dU'/dt becomes a stimulus for the growth of dI'/dt and consequently, for a further reduction in underconsumption pressures.

Second, the growth of collective bargaining may have the effect of reducing the rate of increase in the rate of surplus value itself. In the equilibrium condition in equation (5) this would

monopoly can redistribute value from variable capital to surplus value and thus increase the rate of exploitation. While in Marx's own time the occurrence of monopoly may have been sufficiently rare to make this process of relatively little significance, this is hardly the case at the present time.

mean a reduction in dr/dt and thus a reduced pressure towards underconsumption. Especially in monopoly sector industries, where wages since the war have been fairly closely tied to productivity increases, the gradual rise in the wage has undoubtedly lessened to some extent underconsumption tendencies. The continued growth of monopoly power, however, has at least partially neutralized this counteracting process, since much of the productivity wage increases has in turn been passed on to the working class as a whole in the form of monopoly pricing. As we argued above, this has the effect of further increasing the rate of surplus value for capital as a whole.

The most serious weakness in the underconsumptionist position is that it lacks any theory of the determinants of the actual rate of accumulation. The falling-rate-of-profit theorists have a specific theory of the determinants of the rate of accumulation. In equating the rate of profit with the rate of accumulation, they see a combination of the organic composition of capital and the rate of exploitation as the basic determinant of the actual rate of accumulation. Since they view the organic composition of capital as rising and thus constantly pushing down the rate of profit, the assumption that the rate of profit and the rate of accumulation are equivalent does no damage to their general argument. If anything, the impact of the rising organic composition of capital would be even greater if not all profits were accumulated.

In the underconsumption argument, however, the rate of profit and the rate of accumulation cannot be equated. If they were, there would not be a tendency for underconsumption (i.e., there would be no need for the rate of unproductive spending to increase). Much underconsumptionist writing has, at least implicitly, opted for Keynes' solution to this problem by focusing on the subjective anticipations of profit on the part of capitalists as the key determinant of the rate of accumulation. From a Marxist point of view, this is an inadequate solution. I have not yet seen an elaborated theory of investment and the rate of accumulation by a Marxist underconsumptionist theorist, and thus for the time being the theory remains incomplete.

3. Theories of the Profit Squeeze

Both underconsumptionists and organic-composition-of-capital

theorists maintain that with capitalist development there tends to be a rising rate of surplus value. Where they differ is in their view of the relationship between this rising rate of surplus value and the movements of the rate of profit. The organic-composition theorists insist that changes in technology within the production process itself tend to negate this rise in the rate of surplus and thus produce a fall in profits; underconsumptionists argue that the forces for a rising surplus tend to be stronger than any counterforces, especially under conditions of monopoly capital.

The proponents of the profit squeeze view of crisis agree with the organic composition theorists that the rate of profit tends to fall, but they disagree that this has anything to do with changes in technology, and they disagree with both the organic composition theorists and the underconsumptionists that there is any tendency for the rate of surplus value to rise.

The essential argument of the profit squeeze is very simple: the relative share of the national income going to workers and to capitalists is almost entirely a consequence of their relative strengths in the class struggle. There is therefore no intrinsic reason for wage struggles to be limited, even in the long run, to demands that real wages should rise merely as rapidly as productivity. To the extent that the working class develops a strong enough labour movement to win wage increases in excess of productivity increases, there will be a tendency for the rate of profits to fall (to be "squeezed" by rising wage bills). Such a decline in profits results in a corresponding decline in investments and thus even slower increases in productivity. The end result is economic crisis. Conditions for profitability are restored to the extent that as the reserve army of the unemployed grows during a crisis, the bargaining strength of the working class relative to capitalists declines and thus the profit squeeze is lessened.

The profit squeeze thesis has been used both as an explanation for business cycles and as a theory of structural crisis. Raford Boddy and James Crotty have applied the profit squeeze argument to an analysis of the relationship of macroeconomic state policy to the business cycle. They write:

"Throughout the post-World War II, post-Keynesian period, the profit share of income, indeed the absolute level of

profits, has fallen in the latter half of every expansion. Correspondingly, wages and wage share have risen. We view the erosion of profits as the result of successful class struggle waged by labour against capital—struggle that is confined and ultimately reversed by the relaxation of demand and the rise in unemployment engineered by the capitalists and acquiesced in and abetted by the state."⁴³ Cyclical downturns in the economy are thus portrayed primarily as devices for disciplining the working class.

The most extended attempt to use the profit squeeze argument as the basis of a theory of structural crisis rather than simply business cycles has been made by Andrew Glyn and Bob Sutcliffe in an analysis of the stagnation of British capitalism since the mid-1960s.⁴⁴ They argue, contrary to the usual axioms of modern economics that the share of income going to labour and capital has remained constant throughout the century, that if the shares are measured properly, there has been a very definite trend for the share going to labour to increase. Furthermore, they argue that in Britain especially this trend has substantially accelerated since the end of the Second World War, and especially since the mid-1960s. Glyn and Sutcliffe view this rise in the share going to labour as largely the result of the strength of the labour movement. This is especially important given the present international position of British capital. Because of intense international competition and the elimination of most British tariff barriers, British capitalists have a great deal of difficulty passing on wage increases in the form of higher prices, while simultaneously they find themselves less and less able to resist wage demands because of their vulnerability to strikes. Since most of the competition between British monopoly capital and foreign monopoly capital takes the form of struggles over shares of the market, a strike of even moderate length can have a devastating effect on the future prospects of the British capitalist. Whereas traditionally large capitalists have always been able to hold out longer in a strike than their workers, this is less and less the case, especially with

43. "Class Conflict and Macro-Policy: the Political Business Cycle", *Review of Radical Political Economics*, Vol. 7, No. 1, 1975, p. 1.

44. See "The Critical Condition of British Capital", *New Left Review* No. 66, 1971; and *British Capitalism, Workers and the Profit Squeeze*, London 1972.

more substantial strike funds and government welfare programmes providing at least a minimal subsistence to a striking family. Finally, because of the strength of the union movement, the increase in unemployment that has accompanied the deepening crisis has not led to the usual readjustment of wage rates and a restoration of an adequate rate of exploitation. Thus, the current crisis of British capitalism is fundamentally deeper than earlier crises since the normal social mechanisms for reversing the profit squeeze have been undermined.

The profit squeeze thesis has been sharply criticized, especially by proponents of more orthodox rising organic composition of capital theorists. Perhaps the most general criticism is that theories of the profit squeeze have adopted what is often called a "Neo-Ricardian" view of the relationship of profits to wages.⁴⁵ Instead of profits being seen as realized surplus value, profits are viewed as a deduction from wages. The balance between wages and profits, therefore, is seen as determined through struggles at the level of circulation rather than through dynamics determined at the level of production.

While it is fair enough to argue that theories of the profit squeeze do tend to de-emphasize class struggles at the level of production, nevertheless the accusation of neo-Ricardianism is not entirely appropriate. Marx certainly recognized the role of class struggle over wages as an essential part of the historical process by which the value of labour power is established, and thus as part of the process by which profits are determined. In *Capital*, Marx writes: "The fixation of the value of labour power . . . is only settled by the continuous struggle between capital and labour, the capitalist constantly tending to reduce wages to their physical minimum and to extend the working day to its physical maximum, while the working man constantly presses in the opposite direction. The matter resolves itself into a question of the relative powers of the combatants."⁴⁶

The rate of profit is a consequence of a plurality of concrete processes:

45. See especially Ben Fine and Lawrence Harris, "State Expenditure in Advanced Capitalism—A Critique", *New Left Review* No. 98, 1976, and David Yaffe, "The Crisis of Profitability, A Critique of the Glyn-Sutcliffe Thesis", *New Left Review* No. 80, 1973.

46. *Capital*, Vol. II, Chicago 1906, p. 443.

- 1) class struggles over the standard of living of the working class (real wages);
- 2) the productivity of labour in the wage goods sector, which determines the value embodied in the standard of living of workers;
- 3) class struggles over the length of the working day and the intensity of labour, which determine how much total value workers generate in a given day;
- 4) the organic composition of capital.

The first two of these factors determine the value of labour power. When combined with the third factor, they determine the rate of surplus value (s/v), and when combined with the fourth factor, the value rate of profit ($s/c+v$).

The profit squeeze theorists may be criticized for focussing too exclusively on the first of these elements and failing to link wage struggles to other aspects of accumulation, but it is hardly a valid criticism that they view struggles over wages as one determinant of the rate of profit.

The question remains, however, whether the empirical case made by the defenders of the profit squeeze is credible. Has the rise in wages of workers in fact tended to "squeeze" profits in recent years? There has been considerable debate on both sides of this issue, and it is clear that the extent to which wages can be viewed as pressing on profits depends heavily on exactly how wages and profits are measured. However, even if we accept the operationalizations offered by Glyn and Sutcliffe or Boddy and Crotty, the empirical basis of the theory still remains very problematic. The essential difficulty lies in the relationship between the share of national income going to wages and the basic categories of Marxist value analysis. To explain this issue requires a brief discussion of the very tricky concept of "unproductive labour".

While there are immense difficulties in rigorously operationalizing the distinction between productive and unproductive labour, it is certainly clear that not all labour power is employed productively in capitalist societies, i.e., not all labour actually produces surplus value. The wages of unproductive workers impinge on the rate of profit through a very different logic from the wages of productive workers. There are two ways of expressing this relationship. The most common way of deal-

ing with this issue has been to treat the wages of unproductive labourers as a direct deduction from surplus value. The unproductive worker, in these terms, is treated exactly the same as a private servant who provides a service for capitalists and is hired for the immediate use value of the worker's labour rather than its exchange value. In this conception the value relations are as follows:

$$C + V + S_u + S_a = P$$

where S_u is the proportion of surplus value which must be devoted to pay for unproductive labour, and S_a is the part of surplus value available for accumulation. Increases in S_u directly reduce the effective rate of profit by reducing the numerator in the value rate of profit.

An alternative way of conceptualizing the relationship of unproductive labour to the value equations has been suggested by Mage.⁴⁷ Mage argues that unproductive labour should be treated as a special form of constant capital, "living constant capital" if you will. Like the usual forms of constant capital, most unproductive labour is socially necessary for production, it constitutes a fixed overhead cost of production, and it transfers its value (reproductive costs) to the final product, but without creating any new value (surplus value). In these terms, unproductive labour appears in the value equation as:

$$C + C_L + V + S = P$$

where C_L is "living" constant capital. In this representation, increases in unproductive labour reduce the rate of profit by increasing the denominator of the value rate of profit.⁴⁸

Regardless of which of these formulations is adopted, it is clear that if the employment of unproductive labour increases as a proportion of total labour at a faster rate than the increases

47. *The Law of the Falling Tendency of the Rate of Profit.*

48. This second way of representing unproductive labour in the value equations stresses that constant capital, like variable capital, is not a "thing", but a social relationship. Constant capital is no longer defined as the physical inputs into production, but rather as those socially necessary inputs into production, physical and human, which simply transfer their value to the final product without increasing total value. This conceptualization has interesting implications for the analysis of the organic composition of capital. While it might be difficult to demonstrate that $C/v + s$ or c/v has risen dramatically in the past thirty years or so, it is certainly the case that $(C + C_L)/(V + S)$ and $(C + C_L)/V$ have risen.

of productivity of productive labour, then there will be a tendency for the rate of profit to decline. This is especially clear when unproductive labour is seen as a direct deduction from surplus value: every increase in unproductive labour in this formulation immediately reduces the effective rate of profit.

The difficulty, then, with the data of the profit squeeze theorists is that they are incapable of distinguishing between two situations: a) situations in which profits are squeezed because of rising wage costs; and b) situations where profits are squeezed by increasing employment of unproductive labour. The share of national income going to wages includes both of these processes. To the extent, therefore, that there are general tendencies in monopoly capitalism for unproductive labour to increase, the empirical phenomenon of increasing labour shares of national income could have little to do with successful struggles over wages.

The empirical case for the profit squeeze argument thus remains to be proven. Nevertheless, the profit squeeze argument has the considerable merit of emphasizing the central role of class struggle in the accumulation process. Even if it remains to be demonstrated that rising real wages have been the central cause of declining profits, class struggle and class organization can still impinge on the rate of profit in several critical ways. First, the resistance of workers to layoffs due to technological innovations (featherbedding) may act as a brake on the rate of technical innovation and thus on increases in the productivity of labour. Such a slow-down in innovation in turn makes it more difficult for capital to raise the rate of exploitation in response to declines in the rate of profit (whatever the cause of that decline).

Secondly, the strength of working class organizations can act as a political brake on inflation, and can thus make it more difficult for capital to compensate for deteriorating profits through price rises. Inflation is a weapon in the class struggle; it is one of the ways by which capital can attempt to lower the value of labour power, and thus raise the rate of exploitation. As Bob Rowthorn has argued, the obstacles to the effective use of inflation as a way of pushing down real wages in Britain are to a great extent political rather than simply economic.⁴⁹

49. "Late Capitalism", *New Left Review*, No. 98, 1976, pp. 76-77.

Finally, the existence of substantial programmes of unemployment insurance and welfare in most advanced capitalist countries have meant that the disciplining effects of the reserve army of the unemployed have been seriously attenuated. A reduction in the rate of exploitation due to wage struggles may not have been the underlying cause of the current economic crisis, but the difficulty in raising the rate of exploitation may be one of the reasons for the persistence of the crisis.

4. State Expenditures and Accumulation

Marxist theories of accumulation and crisis have generally conceptualized state activity as unproductive in a double sense: First, state *revenues* (principally taxes) are seen as coming out of the existing pool of surplus value, and thus increases in state spending necessarily imply less surplus value available for accumulation. Secondly, state *spending* is seen as unproductive since under normal conditions the state does not engage in direct investment in the production of commodities.

In the underconsumptionist model of crisis this unproductive quality of state expenditures constitutes the central mechanism by which crisis is averted or at least minimized; in rising-organic-composition models, the expansion of such unproductive expenditures is seen as a critical factor which exacerbates the inherent crisis tendencies in the system. In both theories, however, state activity is seen as largely unproductive and as absorbing an increasing share of the surplus value produced in the economy.

This traditional conception can be criticized both in terms of its view of the *sources* of state revenue and of its view of the *impact* of state spending.

The view that all taxes constitute a tax on the *existing* pool of surplus value is based on a mechanistic and static interpretation of the meaning of the value of labour power. Since taxation clearly reduces the money wages of workers, the view that all taxes come from surplus value implicitly assumes that prior to taxation wages were above the "true" value of labour power. Taxation then merely appropriates that part of the surplus value which had previously been in the disguised form of an inflated money wage. The implicit logic is that if taxation did

not occur, wages would be reduced to the present after-tax level anyway. In other words, if the state did not tax this surplus value it would be available to the capitalist for accumulation. These assumptions are at best dubious, if real wages and taxation are seen as at least partially the outcome of class struggle. Because of the enormous weight of the state's power of legitimation, it is reasonable to assume that many workers are willing to accept a level of taxation on their money incomes greater than a corresponding wage cut that might occur in the absence of such taxes. In this sense taxation actually reduces the value of labour power rather than merely reduces the money wage of labour power to its "true" value. Taxation, of course, cannot itself create *value*, but taxation can increase the part of total value that is appropriated as *surplus value*. Tax exploitation did not die with the feudal mode of production just because wage exploitation became the dominant way that surplus is extracted from workers in capitalist society. Thus, taxation, like monopoly pricing, can potentially expand the rate of surplus value. This is not to say that there are no limits to the extent to which taxes can have this effect, and certainly not that all or even most taxation in fact expands surplus value, but merely that the assumption that all taxation constitutes a drain on existing surplus value is incorrect.⁵⁰

Quite apart from the relationship of taxation to existing surplus value there is the question of the impact of taxation on the subsequent production of surplus value. It is certainly true that with very few exceptions, state production is itself not production for the market and thus the state does not accumulate capital out of any realized profits from its own production. Most state expenditures therefore do not *directly* produce surplus

50. It would be an extremely difficult task to obtain a reasonable estimate of the extent to which actual taxes come out of existing surplus value and the extent to which taxes increase the effective rate of exploitation. An examination of how much money wages tend to increase with increases in the rate of taxation would help to give some indication of the relative proportions. If money wages increase exactly in step with increases in total taxation so that real wages are never reduced by taxes, then it would be reasonable to say that most taxes are taxes on existing surplus. This is an empirical question and I have no basis for predicting a particular *a priori* ratio between surplus absorbing and surplus expanding taxation.

value.⁵¹ But as O'Connor has thoroughly argued, this does not preclude the state from playing an important role in *indirectly* expanding surplus value and accumulation. Many state expenditures have the effect of reducing the reproduction costs of labour power by socializing many expenses that would otherwise have to be paid for by individual capitalists (medical care, training and education, social security, etc.). Furthermore, a great deal of state spending on research and development, transportation infrastructures, communications, etc. have the effect of increasing the level of productivity of capital as a whole, and thus contributing to accumulation. Even in terms of classical, wasteful Keynesian demand-maintenance state interventions, such state spending may have the side effect of increasing capacity utilization and thus increasing productivity. Again, this is not to say that such indirectly productive expenditures are necessarily the dominant mode of state activity, but rather that it is incorrect to see the state's role in the accumulation process as simply being a drag on accumulation.

Given that to some extent taxes as a mechanism of exploitation can expand surplus value and that to some extent state spending can expand accumulation, what is crucial to analyse is not merely the forces which produce a general expansion of state activity, but the extent to which these forces selectively expand the unproductive or (indirectly) productive activities of the state, and the extent to which surplus-expanding or surplus-absorbing taxation tends to grow more rapidly. Little can be said about the latter issue. The current growth of the so-called "tax-payers revolt" in the USA might indicate that the growth of surplus-expanding taxation has reached some sort of limit. Certainly the general battering that the legitimacy of the American state has taken in the last several years would tend to reduce the state's capacity to use taxes as a mechanism for extracting extra surplus value from the working class. At any rate, for the rest of this discussion we will assume that there has not been any major trend one way or the other in the balance between surplus-expanding and surplus-absorbing taxation.

51. This has been well argued by Yaffe and, in a very different context, by Offe: see "The Marxian Theory of Crisis", pp. 216-227, and "Structural Problems of the Capitalist State".

More can be said about the relationship between unproductive state expenditures and indirectly-productive state expenditures. Given the underconsumptionist tendencies inherent in monopoly capitalism, it is obviously necessary for unproductive expenditures to grow more rapidly than productive expenditures. The growth of classical Keynesian make-work and waste programmes, military spending and welfare all reflect this requirement. There are several critical contradictions contained within this role of the state, however, which disrupt the smooth adjustment of unproductive state spending to the needs of monopoly capital.

1) *Contradiction of legitimation and accumulation*: The state does not merely serve the function of facilitating accumulation through demand maintenance; the state also serves a vital legitimation function in capitalist society which helps to stabilize and reproduce the class structure as a whole. The legitimation function directs much state activity towards coopting potential sources of popular discontent by attempting to transform political demands into economic demands. The expansion of Keynesian programmes beginning in the 1930s created a perfect political climate for state spending to expand dramatically such legitimating expenditures. For a long time it appeared that the state in effect could kill two functional birds with one economic policy stone.

The difficulty, however, is that once a demand on the state to provide some social service or meet some social need is granted and becomes institutionalized, it becomes viewed as a right. There is a certain logic to legitimation which means that the political apparatus gets progressively diminishing returns in added legitimation for a given programme over time. Once a programme becomes seen as a right, the continuation of the programme adds little to the legitimacy of the state whereas a cutback in the programme would constitute a source of delegitimation. There is thus not only a tendency for programmes once established to continue, but a constant pressure on programmes to expand, regardless of the requirements of the accumulation process. The hypothesis can therefore be advanced that once Keynesian demand maintenance programmes become bound up with the legitimation functions of

the state, there is a tendency for unproductive spending to rise more rapidly than the requirements for realization of surplus value.⁵²

2) *State spending and productivity.* The growth of state spending tends to dampen increases in productivity in two respects. First of all, internal to the state itself, the mechanisms for encouraging increases in productivity are much weaker than in the private sector. This is true both because most state activity is fairly shielded from direct market pressures and because many of the activities of the state are intrinsically difficult to rationalize. Secondly, the impact of much state spending on the economy as a whole often tends to constrain productivity increases. Perhaps the clearest example of this is military spending, especially as it is organized in the United States. Corporations which are major suppliers of military hardware are guaranteed a given profit rate by the state (especially in "cost-plus" contracts) and are thus under relatively little pressure to modernize and innovate in the production process. While there are occasional technological "spin-offs" from military spending which may partially counteract this damper on productivity, it seems unlikely that such technological advances completely balance the negative effects. As a result of these two factors, there will be a tendency for the expansion of state activity to act as a brake on productivity increases in a capitalist society.

3) *The weakening of mechanisms of crisis management.* The usual scenario for crisis and recovery is that in a crisis the least productive capitals are wiped out, capital is devalued, and conditions for profitable accumulation are restored. The growth of monopoly capital and especially of the dominant role of the state in regulating the economy tends seriously to weaken this restorative mechanism. This is most obvious in the case of corporations who become locked into production for the state.

52. Military spending has an additional contradictory aspect which under certain circumstances can become extremely important; there is no necessary reason for the imperatives of military spending generated by imperialism to coincide with the imperatives generated by accumulation. In the case of the United States, the Vietnam War in the late 1960s is an example of a period where these two imperatives were quite contradictory. See Clarence Lo, "The Functions of US Military Spendings", *Kapitalistate*, No. 3, 1975.

Partially because of the personal ties between the corporate elite and the state apparatus (especially in the military-industrial nexus) and partially because of the social dislocation that would result from the bankruptcy of a major monopoly corporation, the state finds it very difficult to abandon a major corporation, even if that corporation's productivity declines drastically (witness the enormous subsidies of a notoriously inefficient and unproductive corporation, Lockheed). Even outside those companies which produce mainly for the state, the state is forced to underwrite the low productivity of many sectors of the economy in order to avoid major disruptions (the railroads in the U.S. are a good example).

Keynesian state policies also tend to undermine crisis management mechanisms on the side of labour. As discussed above in the section on theories of the profit squeeze, the expansion of state welfare programmes, unemployment insurance, etc., has weakened the reserve army of labour as a mechanism for disciplining the working class. In periods of underconsumption, such programmes appear as one way of increasing aggregate demand. If it was possible instantly to abolish such programmes as soon as they ceased to be functional for capital, then they would pose little problem. The legitimization costs of such a retrenchment, however, are unacceptable, and while there have certainly been attempts in numerous capitalist countries to cut back on welfare programmes in the current crisis, the basic contours of those programmes have remained intact.

The upshot of these contradictions in the role of the state is that Keynesian policies tend to become progressively more and more out of proportion to the requirements of accumulation. Although those policies originally emerged as a response to the problem of excessive surplus (as portrayed by the underconsumptionist model), the end result is that they begin to act as a drain on the surplus value necessary for accumulation (the image of crisis in the rising organic composition model). That is, in spite of the necessity for waste in the era of monopoly capitalism, there is a tendency for the level of state waste (i.e., unproductive spending) to expand more rapidly than the capacity of the system to produce waste (i.e., through increases in productivity). Because the crisis-solving mechanisms are partially blocked, the result is chronic inflation combined with

relatively high levels of unemployment, or what has come to be called "stagflation".

One way of visualizing this argument is in terms of the standard Neoclassical notion of the Phillips Curve. The Phillips Curve represents the possible combinations of rates of unemployment and rates of inflation characteristic of an economy. It is usually represented as defining the trade-offs between unemployment and inflation that face policy makers. The classical form of the Phillips Curve is presented in Figure 3.3.

The premise of traditional Keynesian policies has always been that this trade-off function was itself more or less fixed and that the forces in the economy merely determine where on the curve the economy will fall at a particular moment in time. The task of policy-making was therefore merely to regulate the economy in ways which kept the economy in an acceptable range of the curve. The analysis presented above (which in a somewhat different form some neo-Keynesians have appended to their own conceptualization of the Phillips Curve) suggests that the developments in the economy and the interventions of the state determine not merely where on some ideal Phillips Curve the economy is located, but also the entire shape and location of the trade-off curve itself. Specifically, the theory of disproportionate growth of unproductive spending would argue that there has been a systematic secular deterioration of the terms of the trade-off over the past several decades. Such tendencies have been further exacerbated by the continual growth of monopoly concentration in certain key sectors of the economy, and especially by the growing internationalization of capital.⁵³ As a result of these forces, one might hypothesize that the Phillips Curve has moved away from the origin, and further-

53. The internationalization of capital means that a given effort by the state to reduce inflation will result in greater increases in unemployment than would otherwise be the case, since such state policies will tend to increase the movements of capital across the national borders (see Alberto Martinelli, "Nation States and Multinationals", *Kapitalistate*, No. 1, 1973). Internationalization will thus tend to push the Phillips Curve away from the origin. It is probably impossible to disaggregate empirically the relative effects of such increasing internationalization of capital and increasing unproductive state spending on the deterioration of the trade-off of inflation and unemployment, since the two empirically tend to move together.

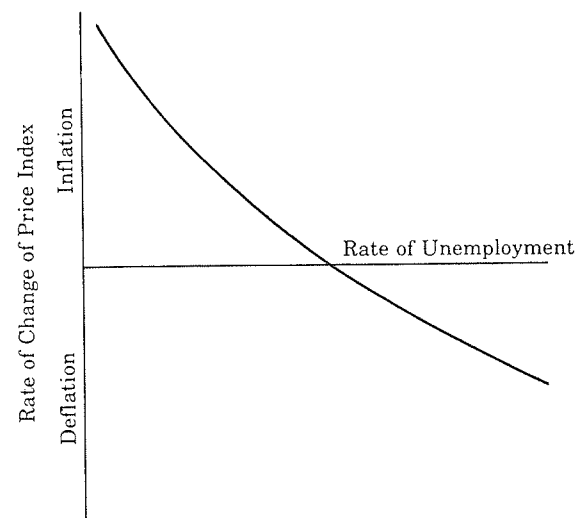


Figure 3.3 The Phillips Curve

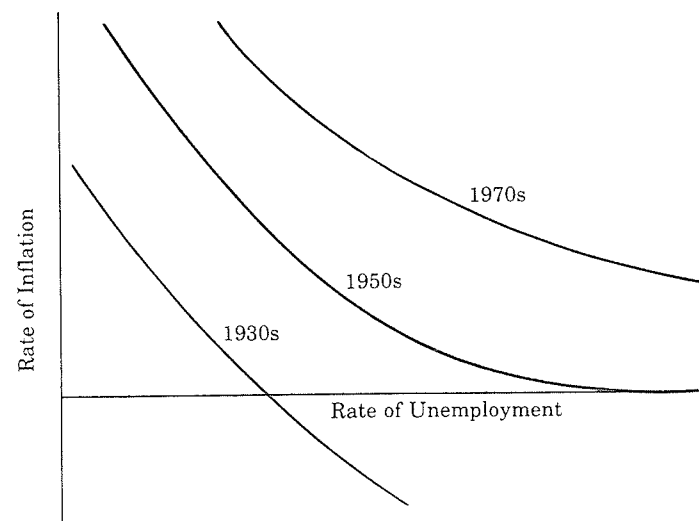


Figure 3.4 Hypothesized Changes in the Phillips Curve Over Time

more, that it may not any longer even intersect the horizontal axis at any level of unemployment. This new Phillips Curve is pictured in Figure 3.4. Keynesian policies are totally inadequate to reverse this deterioration of the Phillips trade-off.

The obvious solution to these dilemmas is, of course, for the state to shift the balance of its activities from unproductive to indirectly productive spending. Such indirectly productive expenditures have certainly been steadily growing over the past several decades, although it seems generally at a slower rate than unproductive expenditures. The state is increasingly involved not merely in what Offe calls "allocative" policies (policies which basically redistribute resources already produced or mobilize the production of resources strictly for Keynesian purposes)⁵⁴ but in "productive" policies as well (policies which directly impinge on the production process and which contribute to the productivity of the economy). As the productive forces in advanced capitalism have developed highly sophisticated technologies, increasingly interdependent productive processes, increasing requirements for highly specialized technical labour, etc., it has become more and more difficult for individual capitalists to provide all of the requirements for their own expanded reproduction, and thus they have turned to the state for various forms of socialized investments. It might well be thought, therefore, that the solution to the contradictions of Keynesian policies can be simply found in a dramatic expansion of these emergent forms of indirectly productive socialized investments. The problem is that the fundamentally Keynesian politics of the contemporary capitalist state, a politics rooted in pluralist interest-group demands, special interest subsidies, military production, etc., act as a serious constraint on the potential growth of these new productivity-enhancing forms of state intervention. This is at the heart of the "fiscal crisis of the state": the constant pressures from the growth of unproductive spending, which are exceedingly difficult to restrain for the reasons spelled out above, make it highly problematic for the state to finance the new forms of state policy which would help reverse the problem of declining productivity itself. Until such time as new political forces can be

54. See "Structural Problems of the Capitalist State".

mobilized successfully to generate what O'Connor has aptly called a new "social industrial complex",⁵⁵ it is difficult to see how this impasse can be overcome.

III. The Development of Capitalism and the Impediments to Accumulation

If these various interpretations are treated as total explanations of crisis tendencies in capitalism, then indeed they are quite incompatible: one cannot, for example, argue that the basic cause of crisis is excessive surplus value (underconsumption thesis) and simultaneously inadequate surplus value (rising organic composition of capital thesis); one cannot posit that the reason for crises is a declining rate of exploitation caused by successful class struggle (profit squeeze) and that at the same time there is a general tendency for the rate of exploitation to rise (underconsumption and rising organic composition perspectives). Either we must reject outright all of these views of crisis but one, or we must adopt a methodological stance which enables us to integrate them within a larger framework.

One strategy for reconciling these various perspectives is to analyse them in terms of the history of capitalist development. Instead of regarding any one crisis mechanism as the panhistorical cause of all economic crises in capitalist society, capitalist development should be viewed as continually transforming the nature of capitalist crisis. To recapitulate the logic of this historical transformation of crisis mechanisms set out at the beginning of this chapter, at each stage of capitalist development there is a characteristic pattern of impediments to the accumulation process. Through a combination of class strategies by the capitalist state and individual strategies by individual capitalists attempting to maximize their profits, these impediments are overcome and the accumulation process continues in new forms. The solutions to the dominant impediments at each level of capitalist development, however, contain within themselves new contradictions which gradually emerge

55. See *The Fiscal Crisis of the State*.

in the subsequent stages.⁵⁶ The logic of this dialectical process can be symbolically represented in a model of determination (see Chapter 1 for an explanation). Figure 3.5 illustrates the main contours of this model.

The historically specific articulation of the forces and relations of production—what is traditionally called the “economic base” in Marxist theory—establishes structural limits on the forms of accumulation in a particular period. Furthermore, the forces/relations of production determine the extent to which a given form of accumulation will be reproductive or non-reproductive of those forces/relations of production (i.e. they

56. There is a certain similarity between this conception of the stages of capitalist development and the theory of “long waves” as developed by Ernest Mandel in *Late Capitalism*, London 1975. Although to a certain extent Mandel holds to the traditional Marxist thesis that the ultimate constraint on accumulation is the tendency for the organic composition of capital to rise, he does insist that the dominant contradictions of one phase of capitalist development are not necessarily the same as in another. He stresses that the accumulation process encounters different immediate obstacles in different stages and he tries to show how class struggles mediate the historical readjustments of capitalism. He also argues that the constraints on accumulation encountered at the end of the long waves of capitalist development can only be overcome through fairly radical reorganizations of the mode of accumulation.

In one very critical respect, however, the analysis presented here differs from that of Mandel. For Mandel, the pivotal characteristic of each phase of the history of capitalism, and the decisive transformations which set in motion new long waves of accumulation, centre on technology. Technological revolutions are the essential basis for the structural reorganizations of accumulation, for the liberation of new possibilities of accumulation. As those possibilities become exhausted, accumulation begins to slow down until such time as a new technological revolution occurs. In these terms, the current world economic crisis, Mandel argues, should be seen as a consequence of the petering out of the third technological revolution.

Technology—or, more broadly, the forces of production—is, of course, important, and in a variety of ways contributes to the character of different periods of accumulation. But I do not think that the essential periodization of capitalism should be tied to a periodization of technological change. Nor does the essential structural solution to impediments to accumulation invariably lie in technological revolutions. The social organization of production, the forms of competition and class struggle, can be at least as decisive. It is historically variable which specific kind of structural change will be the most critical to re-establishing conditions for accumulation during periods of crisis. Mandel’s work is extremely interesting in pointing out the technical sides of these transformations, but in the end it unwittingly tends to reproduce the monocausal views of crisis which it so correctly rejects. For a similar critique of Mandel, see Bob Rowthorn, “Late Capitalism”, *New Left Review*, No. 98, 1976.

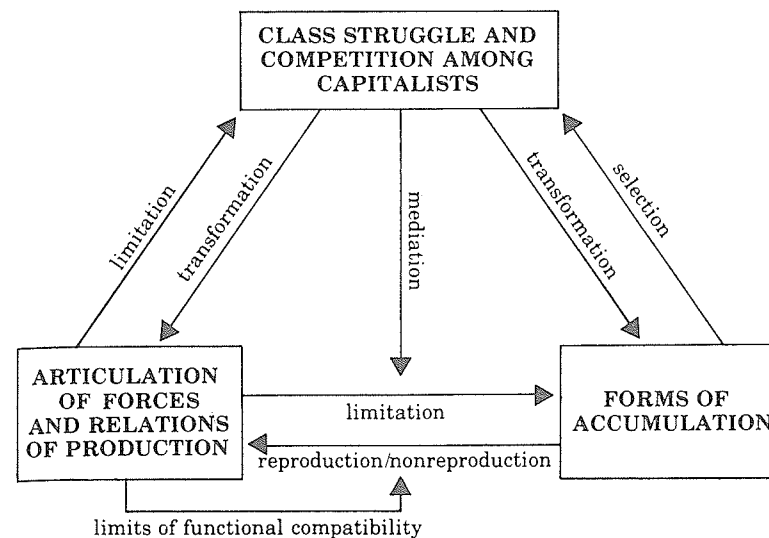


Figure 3.5 Model of Determination of the Accumulation Process

establish limits of functional compatibility). The critical question, then, is to understand the social processes which tend to push the forms of accumulation outside those limits of functional compatibility, thus generating structural crises within the accumulation process.

Class struggle and capitalist competition both directly transform the structure of forces/relations of production and the forms of accumulation. Of particular importance for understanding crisis tendencies, class struggle and competition continually transform the forces/relations of production. A given organization of accumulation, therefore, gradually tends to become less and less reproductive—i.e. as the limits of compatible variation set by the forces/relations of production shift, a given organization of accumulation moves away from what could be considered an optimal form of accumulation. Eventually, the form of accumulation may actually cease to fall within the limits of compatible variation altogether; this is a situation that can be described as a structural crisis of accumulation. In such situations, typically, the forms of accumulation are themselves restructured in basic ways, restoring at least a

minimal compatibility of the forms of accumulation with the forces/relations of production. When we speak of "impediments to accumulation" we are referring to the process by which a given form of accumulation progressively becomes non-reproductive. When we speak of "structural solutions" to those impediments, we are referring to the ways in which the accumulation process is transformed to re-establish a compatible relation with the forces/relations of production.⁵⁷ It is such structural solutions which define the essential character of the different stages of capitalist development.

Figure 3.6 summarizes the historical development which is generated by the structural relations in Figure 3.5.⁵⁸ This figure is, of course, highly oversimplified. The structural "solutions" to a particular impediment to accumulation generally do not eliminate the problem altogether, but merely help it to recede into the background. Every period of capitalist development

57. Two other linkages in Figure 3.4 should be noted. First, class struggle and competition are structurally limited by the forces/relations of production (as discussed in the previous chapter) and selected by the forms of accumulation. This selection relationship is especially important, since it means that the nature of class struggle and the forms of competition among capitalists are shaped by the very process which also becomes non-reproductive for the relations/forces of production. In effect, this means that class struggle and competition respond to a given form of accumulation even when that form of accumulation contradicts the forces/relations of production. This is one aspect of the relationships of determination which tend to push the system towards crisis instead of a stable equilibrium. Secondly, class struggle and competition mediate the relationship between forces/relations of production and the forms of accumulation. The speed at which the obstacles to accumulation emerge, the ways in which they impede further accumulation, the precise forms which they take and the ultimate consequences which they have are all shaped by class struggle and competition. A complete analysis of the accumulation process would have to deal with these complex relations of determination and not simply the ways in which class struggle and competition transform the accumulation process directly.

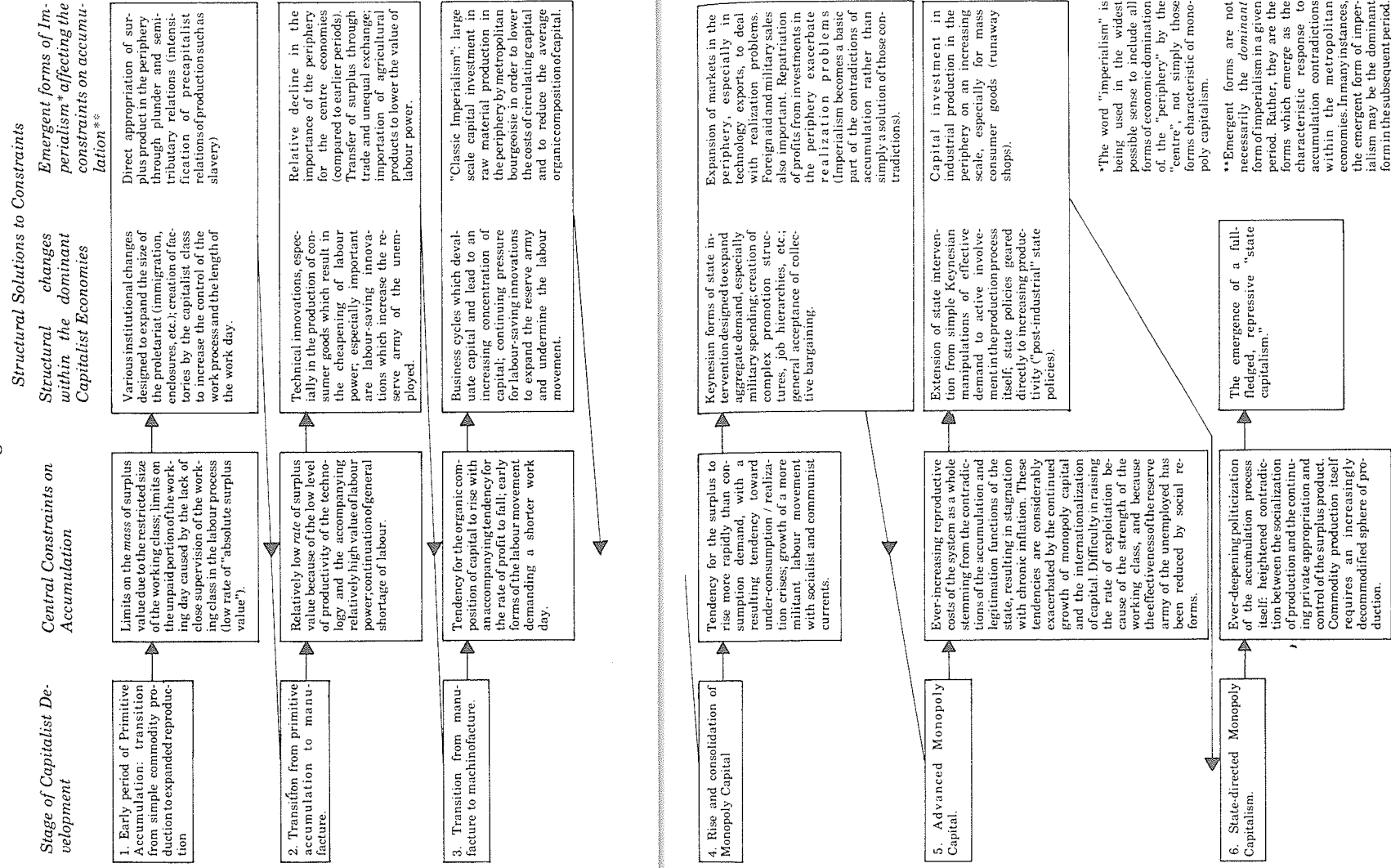
58. This chart draws heavily from a number of sources. The first three stages come fairly directly from Marx's discussion of primitive accumulation in Part VIII of Vol. I of *Capital*; the shift from stage 3 to stage 4 is quite similar to the analysis by David Levine, especially Part III of his thesis, "The Theory of the Growth of the Capitalist Economy"; the analysis of stage 5 is based largely on the analysis of the *Fiscal Crisis of the State* by James O'Connor; and the analysis of the emergent problems of stage 6 has grown out of the work of Claus Offe. The periodization of emergent forms of imperialism comes primarily from Ernest Mandel's *Late Capitalism* and to a lesser extent from Samir Amin's "Towards a Structural Crisis of World Capitalism", *Socialist Revolution* No. 23, 1975.

contains, if only in residual form, the contradictions characteristic of earlier periods. The same point can be made about the forms of imperialism which emerge in response to given constraints in accumulation. There is no suggestion here that a given form of imperialism occurs uniquely with a given impediment to accumulation; most forms of imperialism—plunder, trade, investment in raw materials, investment in industrial production—occur to a greater or lesser extent in every phase of capitalist development. Different forms of imperialism, however, represent the characteristic response to given crisis conditions within the metropolitan countries and it is this which Figure 3.6 attempts to represent.⁵⁹ As will hopefully become clear as we go through each of the stages in the chart, the purpose of the schema is not to present a rigid "stage theory" of capitalist development, but rather to capture the overarching problems and movements of the capitalist system.⁶⁰

59. The discussion of imperialism in Figure 3.6 will be limited in two important ways. First, no attempt will be made to present a comprehensive explanation for imperialism at different periods of capitalist development. Instead, we will focus exclusively on forms of imperialism as responses to crisis tendencies (impediments to accumulation) in the imperialist centres. While such contradictions within accumulation are clearly an important element in any explanation of imperialism, the actual historical development of imperialism is dependent upon many other factors as well. It would be a mistake to reduce imperialism to a mechanism of crisis resolution. Second, imperialism will be discussed only in terms of how it affects the imperialist countries, not how it affects the periphery itself. Of course, in a dialectical manner, the effects of imperialism on the centre are conditioned by the effects of imperialism on the periphery, and a fully elaborated analysis of the contradictions and transformations of capitalism would take this dynamic into consideration. For present purposes, however, I will deal with imperialism in a more limited manner as one of the ways in which the bourgeoisie responds to impediments to accumulation.

60. The chart may give the impression that the particular path of capitalist development and the particular pattern of contradictions which emerge at each stage in the process are rigidly determined. This raises some extremely important questions about the underlying logic of the concept of "contradiction": In what exact sense are the contradictions schematically laid out in the chart "inevitable"? Does the solution to the impediments to accumulation in one period intrinsically and necessarily lead to future impediments? While it is obvious that each of the "solutions" outlined in the chart have certain inherent theoretical limits, it is less obvious that the social forces in capitalist society necessarily push the system towards those limits, and thus transform a structural solution into a contradiction. Why, in other words, does each adaptive

Figure 3.6



1. The Transition from Simple Commodity Production to Expanded Reproduction

The two crucial constraints on the accumulation process in the early period of primitive accumulation were, on the one hand, the existence of institutional forms of production which made close supervision and control of the work force difficult, and on the other, a relatively small size of the proletariat and thus a limited amount of exploitable labour. The lack of supervision of workers under conditions of cottage industry meant that the capitalist had little control over exactly how much the worker worked per day. It was also often exceedingly easy for the worker to embezzle considerable amounts of raw materials from the capitalist.⁶¹ The result was that the rate of exploitation tended to be low because the effective unpaid portion of the workday was low. In combination with the restricted size of the proletariat, this meant the mass of surplus value available for accumulation tended to be quite low.

As Stephen Marglin has argued, in the English Industrial Revolution the creation of the factory provided the structural

strategy of the capitalist system tend to exhaust itself in time? The simple answer is that none of these adaptive strategies can eliminate the inherent class antagonisms of capitalism. Those class antagonisms make a simple, homeostatic reproduction of the system impossible. The more complex answer is that the forms that class struggle takes are themselves moulded by the dominant adaptive strategies of the system. This is precisely what it means to say that the mode of accumulation "selects" forms of class struggle (i.e. it acts as a force which shapes class struggle within limits set by the underlying structure of class relations). The working class is not simply a passive force, even in its most integrated and contained periods. It adapts its strategies to the "structural solutions" which emerge in the course of capitalist development. In their most class conscious form, these working class strategies are explicitly focused towards exploiting those structural solutions, and pushing them to their limits.

A similar argument can be made about the effects of struggle among capitalists (competition): as solutions to the impediments of accumulation emerge, individual capitalists adopt new forms of competition, new strategies for maximizing their individual accumulation. Since there is no overall planning in capitalist society which coordinates these individual strategies, there is an inherent tendency for these strategies gradually to push towards the limits of the existing structure within which accumulation takes place. There is thus a dialectic between the structural solutions to earlier constraints on accumulation and the forms of class struggle and competition which develop in response to those structural solutions.

61. For an interesting discussion of these issues, see Stephen Marglin, "What do Bosses do?", *Review of Radical Political Economics*, Vol. 66, No. 2, 1974.

solution to the first of these constraints. Workers were brought together under a single roof and closely supervised in their work. They were forced either to work as many hours as the capitalist dictated or not work at all, and thus the amount of surplus labour increased considerably. The creation of factories, however, only heightened the problem of the shortage of free exploitable labour. A variety of state policies such as open immigration, rural depopulation, closing of the poor houses, etc., contributed to the solution of the labour shortage.

The dominant forms of imperialism⁶² during the period of primitive accumulation in Western Europe can also be viewed, in part at least, as responses to the central constraints on accumulation. If the ultimate constraint on early capitalist accumulation centred on an inadequate mass of surplus value, the direct appropriation of surplus from the periphery was at least one way of counteracting this constraint. The forms of this direct appropriation ranged from outright plunder, to various forms of tributary relations, to the intensification of pre-capitalist coercive modes of labour control (such as slavery) in agricultural and precious metal production in the periphery for the world market. In all of these cases, a greater mass of surplus value was made available for accumulation than would have been the case simply on the basis of exploitation in the centre.

2. The Transition from Primitive Accumulation to Manufacture

The continual expansion of the proletariat and the factory system characterizes the transition from primitive accumulation to the period of manufacture. In the early period of this transition, the major way in which the rate of exploitation was increased was through the expansion of what is called "absolute surplus value" (i.e., increases in surplus value resulting from the expansion of the working day and the intensity of work). Very quickly, the working day had increased virtually to its biological maximum. In spite of this, however, the actual rate of

62. Throughout this discussion I will be using the expression "imperialism" in the broad sense, covering all forms of economic domination of the periphery by the centre, rather than in the narrow sense of the forms of domination specific to the epoch of monopoly capitalism.

exploitation remained relatively low because of the generally low productivity of technology and the accompanying high value of labour power. Even when the standard of living of the worker was pushed down to bare subsistence, it still took a relatively high proportion of the working day for him/her to reproduce the value of his/her labour power.

The solution to the problem of the relatively low rate of surplus value was the proliferation of technical innovations which drastically cheapened the goods consumed by wage labour, and thus lowered the value of labour power. Since many of these innovations were labour saving, they also had the effect of expanding the reserve army of the unemployed, thus further alleviating the general problem of the shortage of labour that characterized the period.

Imperialism played somewhat less of a role during this period than earlier.⁶³ Of course, the periphery was still important as a source of raw materials for capitalist production, but this function of imperialism was not primarily a counterforce to crisis tendencies within the centre.

3. The Transition from Manufacture to Machinofacture

The progressive introduction of machines into the production process defines the transition from simple manufacture to what Marx called machinofacture. The earlier tendencies for the expansion of factories, the expansion of the proletariat, and so on, continue, but there is added a constant stream of new innovations in the production process. In addition, in this period the first effective forms of proletarian class organizations emerge. Demands are made both for a shortening of the working day and for rises in real wages. The increasing intensity of class struggle creates considerable additional pressure on capital to introduce labour-saving innovations. The result is that in the period of transition from manufacture to machinofacture there is a very rapidly growing organic composition of capital. Thus, in spite of the increasing rate of surplus value, there was a definite tendency for the rate of profit to fall.

The solution to this impediment to accumulation, as we have discussed above, was contained within the impediment itself.

63. Amin, "Towards a Structural Crisis of World Capitalism", p. 12.

The classic pattern of business cycles, devaluations of capital, elimination of unproductive capitals and increasing concentration and centralization of capital provided the social mechanisms for periodically restructuring capital in ways which restored conditions favourable to accumulation.

The classic forms of imperialism in the second half of the 19th century were also in important ways a response to the impediments to accumulation characteristic of the massive introduction of machine production. In particular, large scale capital investments in raw material production in the periphery (e.g., building of railroads to transport raw materials, capitalization of mining, etc.) helped to counteract the rising organic composition of capital by lowering the cost of circulating capital. Furthermore, since production processes in the periphery were generally characterized by lower organic compositions of capital than in the centre, investments in the periphery helped to reduce the average organic composition of capital.

4. The Rise and Consolidation of Monopoly Capital

As the organic composition of capital continued to rise in the 19th century, and into the 20th century, two things occurred: capital tended to become ever more concentrated and centralized, and the rate of increase in the organic composition of capital (probably) tended to slow down. By sometime in the first quarter of the century it appears that the organic composition of capital more or less stabilized. The rate of exploitation, however, continued to rise both because of general increases in productivity (of both a capital-saving and labour-saving variety) and because of monopoly power itself. The result was that a strong tendency towards realization and underconsumption problems emerged.

One of the consequences of the tendency for surplus value to rise is a systematic stimulus for various forms of speculation since, unless realization problems occur, the prospects for strong future profits seem secure. The contradiction, of course, is that unless some mechanism for the continuous absorption of that surplus is created, serious realization problems will occur. Then, given that such realization problems occur in the context of heavy speculation, the resulting economic crisis will be that

much more severe (because of financial failures, collapses of credit systems, etc.). This was the essential scenario of the Great Depression.

Simultaneously with these developments in the accumulation process, the labour movement began to gather considerable strength, especially in the monopolized sectors of the economy. While demands tended to centre on issues of wages and immediate working conditions, the growth of socialist and communist forces within the labour movement, and the experience of the Russian Revolution, made the potential for a more genuinely revolutionary labour movement seem likely.

The great social invention of state sponsored waste, academically legitimated as Keynesianism, constituted the major structural solution to the impediment of underconsumption.⁶⁴ Initially, especially in the United States, such programmes of state spending were viewed with considerable suspicion, and it basically took the lesson of the Second World War to make Keynesianism an acceptable tool of crisis management. Keynesianism also helped to counter the threat of labour militancy, since it tended to underwrite the economic orientation of most trade union struggles. The institutionalization of collective bargaining and the proliferation of complex systems of job hierarchies, promotion systems, seniority rights, unemployment insurance, etc. further helped to contain the labour movement within bounds compatible with such Keynesian solutions.⁶⁵

The underconsumption crisis of the 1930s was not dealt with solely in terms of domestic policies. Changes in the international system also clearly played an important role in providing structural solutions to the specific accumulation impediments of the period. Perhaps more significantly, the Second World War provided an immediate antidote to under-

64. Keynesianism is clearly not the only possible response to the structural crises of accumulation characteristic of the rise and consolidation of monopoly capitalism. While it is clearly incorrect to reduce the complex phenomenon of fascism to a solution to economic crisis tendencies, nevertheless, fascism can be interpreted as at least partially a response to the same kinds of accumulation impediments which produced Keynesianism, but under different political and social structural conditions.

65. See Stone, "The Origins of Job Structures in the Steel Industry", and Braverman, *Labour and Monopoly Capital*.

consumption tendencies, both through massive military spending and through the destruction of great quantities of capital. After the war, the hegemonic position of the United States made it much easier to establish a stable system for international trade and finance (as embodied in the Bretton Woods accords) which greatly facilitated the expansion of markets and international credit necessary to alleviate underconsumption pressures. The long period of positive trade balances for the United States after the war certainly reduced realization problems in the U.S., while the investment requirements of economic reconstruction after the war in Europe reduced underconsumption pressures there as well.

The role of imperialism in this period is more ambiguous. The considerable increase in foreign aid, especially military aid, in the post-war period, and the expansion of trade with the periphery, especially in technology, contributed to reducing realization problems in the U.S. However, American imperialism was hardly limited to trade; American direct investments in the periphery also dramatically increased throughout the post-war period. To the extent that the surplus value generated through these investments was repatriated to the United States, such investments would only serve to augment realization problems. Compared to earlier periods, imperialism thus plays a much more contradictory role with respect to crisis tendencies during the transition from monopoly capitalism to advanced monopoly capitalism. While individual capitalists invest in the periphery because they see the periphery as offering profitable outlets for capital, the impact on the accumulation process as a whole is to heighten the problem of surplus absorption.

5. Advanced Monopoly Capitalism

The Keynesian solutions to underconsumption tended at least initially to dovetail with the political requirements for legitimation. But the initial harmony was shattered as the growth of unproductive state expenditures tended to expand faster than the surplus-absorbing requirements of the system. The organizational strength of the working class, especially at the economic level, further aggravated the situation by making it

difficult for the capitalist class to increase the rate of exploitation sufficiently to compensate for the overexpansion of unproductive expenses. To an important degree, the institutional arrangements which underpinned Keynesian state policies—collective bargaining, economism, welfare policies, unemployment insurance, etc.—all served to make it more difficult to adjust to new circumstances.

All of these difficulties were further aggravated by the continued concentration and centralization of capital on both a national and international scale. As has often been noted, competition under relatively monopolistic conditions is waged less in terms of prices than in terms of advertising, market strategies, and political manoeuvring. There is an internal tendency within monopoly capital itself, therefore, for unproductive activities to increase with concentration and centralization of capital. The internationalization of capital has further complicated these contradictions by undermining the capacity of national governments effectively to regulate their own national economies. The net result of all of these factors has been a serious deterioration in the trade-off between inflation and unemployment, which characterizes the economic crisis of the 1970s.

A variety of structural solutions to the accumulation impediments of advanced monopoly capitalism are now emerging. At the international level, foreign investments in the periphery are increasingly centred in manufacturing rather than simply raw material extraction, agriculture and trade. This is especially the case for relatively labour intensive mass consumption commodities. In the face of the difficulty of increasing the rate of exploitation in the metropolitan countries and the increasing burden of unproductive state spending, a considerable amount of industrial investment is occurring in the periphery. In the case of the United States, in addition to this movement of capital abroad there is considerable movement of industrial capital from the highly unionized Northern states to the less unionized South, again because the obstacles to increasing the rate of exploitation are weaker in those areas.

In terms of domestic state policies, the immediate response to the problem of the ever-expanding reproductive costs of monopoly capitalism relative to the growth in productivity has been

an attempt at cutting back many Keynesian policies, especially in welfare programmes, education and various public services. The emergent long-run solution is to move from predominantly Keynesian interventions in the economy to active state involvement in the production process itself. Qualitatively new forms of state intervention are called for. It is no longer enough for the state simply to set the parameters for capitalist production by regulating aggregate demand, interest rates and taxes, and to deal with the social costs generated by the irrationalities of capitalism through police, pollution control and mental hospitals. The state needs to become directly involved in the rationalization of production, the coordination and planning of productivity increases, the destruction of inefficient sectors of production, and so forth.

It is, of course, difficult to give precise descriptions of the forms such new interventions will take. The minimal steps would include direct state participation in the planning and allocating of resources for investments. In the United States this is already being proposed for energy development. Energy production will not be organized through unfettered market mechanisms, but through direct state controls. More pervasive forms of such production interventions would include the state directly organizing the modernization of production processes in heavy industry, either through outright nationalizations or through the creation of various kinds of co-planning boards involving the state and private capital (and perhaps labour and "consumers" as well). Given that in monopoly capitalism the classic mechanisms of advancing productivity—bankruptcies, devaluation of capital, etc.—are too costly politically and too disruptive economically, the state will eventually have to take the responsibility of directly increasing productivity.

In order to accomplish such rationalizations, the state will have to increase its capacity to control and discipline individual capitalists and the working class. In the case of capital, this means above all being able to prevent the flight of capital in the face of increasing state involvement in investments as well as being able completely to eliminate unproductive sectors of capital (especially small and medium capital), in the interests of increasing the productivity of capital as a whole. In the case of the working class, it will be necessary severely to constrain

wage and employment demands for an extended period of time, in order to increase the rate of surplus value necessary to pay for such rationalizations of production.

The political obstacles to these new forms of state intervention are very high, especially perhaps in the United States where small and medium capital have considerable political power. Organized labour is also extremely wary of such proposals, fearing that state planning will mean much more systematic controls on wages, reductions of monopoly sector employment through rationalization, and generally a weakening of the bargaining position of unions. In Europe, because of the political strength of socialist and communist parties, it may be easier to initiate these state capitalist programmes. Certainly in the case of Italy, there is widespread feeling that only the Communists would be able to maintain discipline within the working class to be able to initiate major new programmes of economic reorganization and rationalization, necessary for a revival of Italian capitalism. Whether or not such a reorganization could become a first step towards a transition to socialism, is, of course, a hotly debated issue. In any event, such a reorganization is necessary for a restoration of favourable conditions for accumulation.

What new impediments to accumulation are likely to emerge in the next phase of capitalist development? While it is quite problematic to speculate about contradictions in the future, several things seem fairly safe to say. As monopoly capitalism moves towards qualitatively new forms of state involvement in production, towards what might be termed State-directed monopoly capitalism, there will be an ever-deepening politicization of the accumulation process itself. It will become increasingly difficult to apply "neutral" market rationality to production; political criteria will become more and more central to production itself. Although it is almost certain that in the United States few major corporations would be formally nationalized, a greater and greater proportion of production will be *de facto* effectively organized by the state. This does not mean, of course, that commodity production (production for exchange) would disappear, but rather that an increasingly important part of production would be organized outside of the market, and not directly subjected to profit-maximizing

criteria. Stated more abstractly—in order to perpetuate commodity production, the state will have to organize a continually growing decommodified sphere of production.⁶⁶

All of this would occur within the continuing context of capitalist social relations and a capitalist state serving the function of reproducing the class structure of capitalist society. The expanded decommodified sphere of production would be strictly constrained by the requirements of reproducing commodity production itself. The new forms of impediments to accumulation would therefore centre on the heightened contradiction between the progressive socialization of the process of production alongside the continuing private appropriation (through commodity production) of the surplus product.

As the state assumes an ever-greater role in the actual organization of production, the ideological legitimations of the "free enterprise system" will tend to become more and more tenuous. As a result, it is likely that the socialist alternative will move more into the centre of American working class politics. Class struggles around the state and around production (which increasingly become the same struggles) will thus tend to become more ideological, more politicized, and ultimately more threatening to the capitalist system. Under such circumstances, it is quite possible to imagine the development of a full-fledged state capitalism in the United States (although dressed in the symbols of private capitalism) which would attempt to contain the glaring contradictions between legitimation and accumulation by means of considerable repression and centralized planning.

There is, however, no automatic reason for a "solution" which is theoretically functional for capitalism to be the solution which historically emerges. Whether or not such a structural

66. For an extended discussion of the contrast between commodified and decommodified state interventions, see Gösta Epsing-Anderson, Roger Friedland and Erik Olin Wright, "Modes of Class Struggle and the Capitalist State". *Kapitalstate*, No. 4–5, 1976. Decommodified state interventions have always been present in the capitalist state. To take perhaps a trivial example, public libraries represent a decommodified way of providing books for the public. What would be qualitatively new about decommodified interventions in advanced capitalism would be involvement in the production of use-values and not simply the distribution of use-values. Many of these ideas have been derived from the work of Claus Offe, see especially, "The Capitalist State and the Problem of Policy Formation".

reordering of monopoly capital will occur depends on the one hand on the cohesiveness of the capitalist class and its capacity to generate a class politics in the interests of capital as a whole, and on the other, on the strength of socialist movements in the working class and their capacity to organize a class politics capable of transforming decommodified production in the service of capital into genuinely socialist production in the service of the working class.

Bureaucracy and the State

Our discussion of the historical transformations of the process of accumulation closed with a somewhat speculative discussion of the emergent solutions to the economic stagnation of the 1970s and the new contradictions which those solutions were likely to engender. The central proposition was that the capitalist state was likely to engage in qualitatively deeper forms of intervention into the economy, moving from intervention and planning at the level of market relations towards planning within production itself. Such a transformation in the role of the capitalist state would itself generate new contradictions specifically centred around the politicization of the accumulation process.

Such changes in the forms of state activity in capitalist societies and in the contradictions of accumulation are of crucial importance in any discussion of socialist politics. A number of questions are immediately posed: In what ways do these changes in the role of the state affect the relationship of the capitalist state to class struggle? Do these new contradictions open up new possibilities for the left to use the capitalist state as part of a revolutionary strategy? What implications do these developments have for the classic debate between peaceful, incremental roads to socialism and violent, revolutionary strategies for socialism?

I cannot rigorously answer most of these questions, but I will try to clarify some of the issues involved in answering them. In this chapter I will focus on one specific issue which underscores all of these questions on socialist strategies: the problem of bureaucracy. In particular, I will address the question: how should we understand the relationship between class struggle