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CAPITALISM: A UTILITARIAN ANALYSIS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Graduate School of The Ohio State University

By

Charles David Schweickart, B.S., M.A., Ph. D.

* * * * *

The Ohio State University

1977

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Until the present age, the institution of property in the shape in which it has been handed down from the past, had not, except by a few speculative writers, been brought seriously into question, because the conflicts of the past have always been conflicts between classes, both of which had a stake in the existing constitution of property. It will not be possible to go on longer in this manner. When the discussion includes classes who have next to no property of their own, and are only interested in the institution so far as it is a public benefit, they will not allow anything to be taken for granted—certainly not the principle of private property, the legitimacy and utility of which are denied by many of the reasoners who look out from the standpoint of the working class.

The working classes are entitled to claim that the whole field of social institutions should be re-examined, and every question considered as if it now arose for the first time, with the idea constantly in view that the persons who are to be convinced are not those who owe their ease and important to the present system, but the persons who have no other interest in the matter than abstract justice and the general good of the community.

John Stuart Mill wrote these words in 1869, as the prelude to a project he was about to undertake: an evaluation of the debate between private property and socialism. Death cut the endeavor short. Only a rough, rather insubstantial draft was accomplished, arriving at the tentative conclusion that "the various schemes for managing the productive resources of the country by public instead of private agency have a case for a trial... but they are at present workable only by the elite of mankind."

The dissertation

1

2


set forth here may be regarded as an attempt to re-do and complete Mill's effort. Our conclusion is different from Mill's, but our method is the same: to evaluate and compare, from a utilitarian point of view, the case for capitalism and the case for socialism.

A number of considerations have led us to adopt the utilitarian perspective. Above all, it represents a blend of plausibility and simplicity which will allow us to fit into a consistent ethical framework the very large number of arguments our topic generates without doing undue violence to the moral appeal of each. Many of the arguments we will consider are made by people—social critics and economists, in particular—who are not professionally sensitive to ethical nuances, but who have, nonetheless, moral claims to advance. Most of these arguments can be plausibly rendered, without much difficulty or distortion, as appeals to the long-run "greatest happiness for the greatest number."

This is especially true of the arguments of the neoclassical economists. These economists—the vast majority of twentieth century non-Marxist economists—have long since repudiated their connection with utilitarianism (and with all other ethical theories), and have adopted, instead, the self-image of "value-free" scientists. However, their categories, having emerged from a nineteenth century milieu dominated by utilitarianism, have retained affinities with that ethical perspective. Most arguments which are couched
in these categories lend themselves "naturally" to a utilitarian articulation.

Utilitarianism today commands nothing like the widespread allegiance it did (particularly among British philosophers) in the nineteenth century. No normative theory does so at present. But in recent years utilitarianism, as a general normative theory, has not fared badly. In spite of the controversy surrounding it, it retains considerable appeal, particularly when used to evaluate alternative practices or social structures. This is precisely how we will use it.

Contemporary utilitarians have refined the nineteenth century theory by identifying a variety of "utilitarianisms." Two distinctions in particular are widely discussed--act versus rule utilitarianism and hedonistic versus ideal (or eudemonic) utilitarianism. To update Mill's project and to situate it within the contemporary framework, let us consider the relevance of these distinctions.

Insofar as our analysis is an analysis of alternative social structures, it might appear that rule utilitarianism is the more appropriate theory for our purposes. This is not really so. We are indeed concerned with the adoption of a set of rules; a social structure or a social practice (e.g., private ownership of the means of production) can certainly be regarded as a set of rules. But when confronted with the problem of adopting a specific set of rules, act and
rule utilitarians make the same calculations. Each weighs the advantages and disadvantages of adoption and non-adoption, and attempts to estimate the general good likely to follow from either course. The dispute between act and rule utilitarians turns on whether an individual action is to be justified by its consequences or by the consequences that follow from the adoption of the rule which universalizes that action. For most actions, act and rule utilitarians make different calculations—but not when the act in question is precisely the adoption of a set of rules, as is the case in this dissertation.\(^7\)

Whether or not pleasure is the only good is the issue dividing hedonistic from ideal utilitarianism. Contemporary theorists tend to find the latter version, which allows for the optimization of a number of distinct goods, the more plausible. Mill himself appears ambivalent. Though he firmly asserts the hedonistic principle, he maintains (inconsistently, it is sometimes argued) that pleasures differ in quality as well as quantity, and that it is even possible for other things (money, virtue) to be desired for their own sake.\(^8\)

Now the basic thesis of this dissertation is that a defense of capitalism on utilitarian grounds is no longer viable. It appears to us that this thesis can be established by appealing to either hedonistic or ideal utilitarianism. Most of the arguments for capitalism that will be considered
appeal more or less directly to pleasure-pain considerations: material well-being is best satisfied under capitalism. We will respond to such arguments by demonstrating that a proof of this requires bizarre assumptions, and by advancing reasons for thinking that if account is taken of "the greatest number," structural stability, and other factors, material well-being is likely to be greater under an alternative system. Since pleasure is a good for (virtually) all forms of utilitarianism, arguments such as these fall within the framework of both ideal and hedonistic utilitarianism.

However, some arguments for capitalism advance considerations which are not directly hedonistic: for example, the claim that capitalism maximizes freedom. Such arguments will be met on their own ground. We will deny, e.g., that capitalism does maximize freedom. (We do not argue that other disutilities counterbalance freedom.) Thus, such debate can be viewed as situated directly within ideal utilitarianism, where freedom (in this case) is taken as a good to be maximized. For a hedonistic utilitarian to defend capitalism on the ground that it maximizes freedom, he must first establish that freedom does promote pleasure. If he succeeds in this, then our argument also fits into the hedonistic framework.

Occasionally, an argument against capitalism will be phrased in non-hedonistic terms. For instance, an alternative to capitalism will be defended on the ground that it
allows a greater exercise of human faculties. The argument is straightforwardly ideal-utilitarian insofar as "exercise of faculties" is accepted as a good to be maximized. To make the argument in hedonistic terms, it must be argued—or at least explicitly assumed—that exercise of faculties is pleasurable. Whenever our argument requires some such empirical assumption to situate it within hedonism, we will so note that fact, although the argument itself will be cast in ideal-utilitarian terms.

Democracy is one good that is frequently invoked in establishing our thesis. We presume an ideal-utilitarian commitment to democracy—a commitment which, of course, is not absolute, since countervailing considerations must always be taken into account.

Mill argues, as a hedonistic utilitarian, that people are generally happier in the long run when decisions about matters which significantly affect a collective are made democratically. He reasons that individuals are generally best situated to judge their own happiness, and are best served by procedures which call forth their active participation. Thus, (at least some) hedonistic utilitarians as well as ideal utilitarians assume a prima facie case for democracy. We will frequently cite this principle—that the abrogation of a democratic procedure, but not its adoption, requires justification—presuming it to be acceptable to both ideal and hedonistic utilitarians.
The only other ethical theory which seems to me to rival utilitarianism as a framework suited to evaluating competing social systems is that recently advanced by John Rawls. Our main objection to Rawls' theory, apart from its being more complex than is necessary for this paper, is its overemphasis on the problem of material inequality. The Rawlsian principles of justice are not well suited for articulating arguments which cite the absence of democratic decision procedures where such are feasible, or those which remark on structural instabilities. Insofar as the issue under consideration is inequality, Rawlsian principles are more stringent than those of utilitarianism. Hence, if it can be shown—as I think it can—that the inequalities generated by capitalism are not justifiable on utilitarian grounds, the same consideration will show them to fail also on Rawlsian grounds.

This work is essentially an ethical evaluation of capitalism. By capitalism we understand a socio-economic system characterized by three features. First, the means of production are owned for the most part by private individuals, directly or through the mediation of private corporations. Second, the society is a commodity-producing society. That is, the bulk of economic activity is directed towards the production of goods and services for sale in a free market. (By "free market" we understand one that is largely free from governmental price setting. We do not mean "free" in the
sense of "perfectly competitive," i.e., free from any monopolistic or oligopolistic arrangements on the part of owners of means of production or on the part of laborers.) Third, labor-power is a commodity; large numbers of individuals sell their "capacity to labor" to those who can provide them with the means of production. The laborers themselves are not sold (as they are in most slave economies); rather, they sell their own labor-power, in accordance with the terms of a negotiated wage-contract.

While the third condition is normally found only in societies which satisfy the second, the first two are quite independent. The version of socialism which we will examine in detail in Chapter Three exhibits the second feature, but neither the first nor the third. A feudal society which engages in little trade and does not recognize "free laborers" exemplifies the first but not the second or the third. It is possible as well to have a society satisfying the first and second features but not the third—a society of independent commodity producers who employ little hired labor (the Massachusetts Bay Colony, for example). It is possible to have features two and three but not one—a market socialism with wage-labor.14 None of these societies are capitalist according to our definition.

On the other hand, all the non-communist industrial nations today are capitalist. The presence of welfare provisions, nationalized industries or a ruling political party
self-labelled socialist does not render a society non-capitalist. So long as the bulk of the economic enterprises are privately owned, are worked by hired laborers, and produce goods for exchange in a market, we have capitalism.

The basic thesis of this dissertation is, as already remarked, that a defense of capitalism on utilitarian grounds is no longer plausible. The ethical system which flourished with capitalism in the last century and which so often served as its justification no longer supports it.

To establish this thesis, we will examine and compare three models: the "perfectly competitive" laissez-faire capitalism which lies at the center of neoclassical economics (and close to the hearts of most conservative economists), the "welfare-state" version advocated by more liberal thinkers, and, finally, an alternative socialist model—a version of worker-controlled socialism.

We use "socialism" in this work to describe any form of socio-economic organization which does not have most of the means of production in the hands of private individuals—any system, that is, which fails to satisfy the first condition of our definition of capitalism. In a socialist society the bulk of the means of production are, in some significant sense, owned by the state. The precise sense of "state ownership" may vary for different forms of socialism, but it must be such as to preclude an individual's receiving income solely in virtue of his ownership of those productive assets.¹⁵
Our definition of socialism is meant to encompass most of the countries of the world which call themselves "socialist." The Soviet Union, the People's Republic of China, the Eastern European "communist" countries are all socialist. This dissertation is not, however, a defense of socialism so defined. This work is essentially an analysis of capitalism, not socialism. A socialist model plays a major role in the argument, since a utilitarian analysis, to be complete, requires a discussion of alternatives. We present such an alternative, a socialist alternative. We do not argue that it is the best alternative to capitalism (though we happen to think that it is). We are simply interested in establishing that at least one specific version of socialism is markedly superior, on utilitarian grounds, to the two major versions of capitalism commonly defended.

Before launching our utilitarian investigation we think it desirable to consider carefully certain non-utilitarian defenses of property income, arguments which appeal to simpler ethical canons, namely those of contribution and sacrifice. This we do in Chapter One. Two attempts to link capitalist distribution to contribution are examined, one based on the neoclassical static-equilibrium model of perfect competition, and the other derived from Joseph Schumpeter's conception of capitalism as a dynamic process of "creative destruction." We also analyze the appeal to sacrifice suggested by Alfred Marshall's famous dictum, "capital is the
product of labor and waiting." None of these arguments survive close inspection, though each can be strengthened considerably, as we shall see, when recast as utilitarian appeals. By first considering the simpler forms of these arguments, we shall dispose of a number of quite common misconceptions.

Our utilitarian investigation begins in earnest in Chapter Two with a lengthy study of perfectly competitive capitalism in a "static" situation—a situation where no productive innovation is taking place. Here we discover a number of serious ethical problems relating to the distribution of wealth, unemployment, the sales effort and workplace organization under capitalism. In Chapter Three we move to a consideration of both welfare-state capitalism and worker-controlled socialism to see how each fares with respect to these difficulties. We conclude in favor of our socialist model.

In Chapter Four we drop the static assumption, and undertake a study of the "dynamic" case: capitalism and growth. We look at all three of our models in this setting, and again our version of socialism appears the most likely of the three to approach utilitarian optimality. A non-economic argument connecting capitalism and freedom is also examined, and also found wanting, thus bringing our basic argument to a close. The dissertation concludes with a brief discussion of the possible evolution of our socialist model into the classical communist utopia.


3 The term "neoclassical" is used throughout, as it is regularly used in the current literature, to refer to those economists succeeding Adam Smith, Ricardo, Marx and Mill (the "classicals") for whom marginalist categories (marginal cost, marginal product, marginal utility, etc.) play a predominant role. Jevons, Walrus, Wicksell and J.B. Clark were among the major nineteenth century innovators; Marshall stands as the paramount pre-Keynesian representative of this century. Keynes himself bitterly attacked certain key neoclassical assumptions, but since his death his theory has been absorbed into the neoclassical framework (how successfully is a matter of much debate, but that need not concern us here). The neoclassicals are opposed by Marxists, and by small but influential bands of neo-Ricardians, radical Keynesians, and assorted iconoclasts. Piero Sraffa, Joan Robinson and John Kenneth Galbraith are representative of these last three respectively.

4 The separation began toward the end of the nineteenth century with the realization, by Pareto, that marginalist analysis did not require the assumption that utility be of cardinal magnitude. A major statement of the separation was provided by Lionel Robbins in his 1932 *Essay on the Nature and Significance of Economic Science*. By 1947, when Paul Samuelson published his classic *Foundations of Economic Analysis*, the split was complete: "Today it is customary to make a distinction between the pure analysis [of an economist] qua economist and his propaganda, condemnations, recommendations qua citizen. In practice, if pushed to extremes, this somewhat schizophrenic rule becomes difficult to adhere to and leads to rather tedious circumlocutions. But in essence, Robbins is undoubtedly correct. Wishful thinking is a powerful deterrent to good analysis and description, and ethical conclusions cannot be determined in the same way that scientific hypotheses are inferred or verified" (New York, 1965), p. 219.

5 The first half of this century marked the nadir of utilitarianism, but it has recovered significantly since then. Anthony Quinton remarks, "In contrast to the complete dismissal of utilitarianism that prevailed during what may be called the period of anti-naturalism, it is now widely conceded that at least a large and central segment of rational moral thinking is utilitarian in character" *Utilitarian Ethics* (New York, 1973) p. 110.

The rules with which this dissertation is concerned are social practices and structures, e.g., the practice of allowing individuals to hire other individuals as wage-laborers or the practice of leaving investment decisions to private individuals, and not with the more narrowly conceived "moral rules" with which rule-utilitarians more commonly concern themselves. In the final analysis, of course, all practices whose adoption or non-adoption produce various mixes of good and bad consequences have, for a utilitarian, a moral dimension.


Cf. Considerations on Representative Government (Indianapolis, 1958) especially Chapter III, "That the Ideally Best Form of Government is Representative Government." Mill, of course, prefers representative democracy to direct democracy, and is much concerned with avoiding the "tyranny of the majority." We do not necessarily agree with Mill on such specifics.

As set forth in A Theory of Justice (Cambridge, Mass., 1971). Another possible candidate is Robert Nozick's "entitlement theory," though this view seems to beg the essential question by making private property just by definition. A just distribution of wealth, for Nozick, is one which results from just transfers of just original acquisitions of unheld property. An original acquisition is just if it doesn't violate the "Lockean proviso" that there is "enough and as good left in common for others." How does this concept of justice apply in a situation where there is no more "unheld property" available? Nozick suggests that so long as people are better off under a system of private property than they would have been in a state of nature, (where "unheld" property is available) the "intent" behind the "enough and as good left over" proviso is satisfied. Thus (presumably), a "natural right to property" is, if not self-evident, at least plausible. Cf. Anarchy, State and Utopia (New York, 1974), pp. 150-52 and 174-82.

Rawls, pp. 64 and 302.

Cf. pp. 63-5 of this dissertation for an elaboration of this point.
13 In the course of our presentation we will sometimes note the Rawlsian formulation of our argument, though we do not pursue this systematically. For the most part (when the issue is inequality) the reformulations are obvious.

14 Oscar Lange and Fred Taylor advocated this form of socialism in their widely discussed work *On the Economic Theory of Socialism* (Minneapolis, 1938).

15 A "socialist" society in our sense of the word does not allow property income within the dominant "socialized" sector. Some property income may be allowed within the smaller "private" sector.
Chapter One  
CAPITALISM, CONTRIBUTION AND SACRIFICE

An important defense of capitalism which is conceptually independent of utilitarianism alleges that the distribution of wealth under capitalism accords with the ethical standard of productive contribution: capitalism is just because it returns to each individual the value he produces. The American economist John Bates Clark was an early exponent of this view. "The indictment that hangs over society," he writes, "is that of 'exploited labor'." But this charge, Bates thinks, is false, since it can be shown that "the natural effect of competition is . . . to give to each producer the amount of wealth that he specifically brings to existence."¹

Political economists and social philosophers of the conservative "classically liberal" tradition frequently advance similar arguments. The fundamental question, says Friedrind von Hayek, is "whether it is desirable that people should enjoy advantages in proportion to the benefits which their fellows derive from their activity or whether the distribution of advantages should be based on other men's views of their merit." He argues that a free capitalist society opts for the first alternative.² Robert Nozick, while not grounding his defense of capitalism on the contribution canon,
remarks in passing that "distribution according to benefits to others" is a major feature of a free capitalist society. 3

What we wish to investigate in the first sections of this chapter is the supposition that capitalist distribution does accord more or less with contribution. Specifically, we wish to investigate whether property income, income derived from the ownership of productive assets, can be legitimized by the canon that "justice consists in the treatment of people according to their actual productive contribution to their group." 4 We do not wish to question this non-utilitarian ethical canon itself, though it is problematic. We wish only to inquire whether a defense of capitalism can be built upon it.

Any defense of capitalist distribution which appeals to "proportional contribution" must provide a definition of contribution which is subject to at least three constraints. It must be formulated without reference to the market mechanism (to avoid making the claim "capitalism distributes according to contribution" a tautology); it must allow for quantitative interpersonal comparisons, and it must accord reasonably well with our ordinary usage of the term in ethical contexts. A "contribution" defense must then show that some plausible version of capitalism distributes in accordance with "contribution" so defined.

Two such arguments will be considered, the neoclassical one formulated by Clark, and a "dynamic" defense suggested
by Schumpeter's work.⁵ We will also look at a third argument derived from Marshall's concept of interest as the "reward for waiting." To the extent that it is interpreted as an appeal to contribution, this proposition reduces to the neoclassical formulation.

Marshall's argument can also be interpreted as an appeal to a different ethical canon: that capitalism distributes to each according to his sacrifice. The last section of this chapter will deal with this appeal. Again, we will not question the canon as such; rather we will ask whether capitalism does so distribute.

As we shall see, neither canon, that of contribution nor that of sacrifice, suffices to justify capitalist distribution. A more refined canon will be needed if a plausible defense is to be made. The stage will thus be set for utilitarianism.

**Capitalist Contribution as the Marginal Product of Capital**

Providing a relevant definition of "contribution" is a matter of some complexity. A succinct formulation of the principle of capitalist distribution is provided by Friedman: "To each according to what he and the instruments he owns produces."⁶ Since it is characteristic of capitalism that those who own the means of production are in general distinct from those who operate them, the claim that capitalist distribution accords with the canon of contribution presupposes
that one can distinguish in a quantitative manner the contribution of the instrument of production from the contribution of its operator. It presupposes too that the contribution of the instrument can be regarded, in an ethically relevant sense, as the contribution of the owner of that instrument.

The first presupposition concerns what Samuelson calls "the riddle of the sphinx"—how to allocate among the factors of production (land, labor, and capital) the total product they jointly produce. He credits John Bates Clark with providing the indispensable key to the solution.\footnote{7}

The modern version of the Clark solution uses the notion of a production function, a technical relationship specifying the maximum amount of output producible, given a particular technology, for each and every quantity of relevant technical input. Suppose, for example, that corn is the output under consideration, and is regarded as the joint product of labor and land. If we assume that the labor and the land are each homogeneous in quality, the production function can be represented as \( z = P(x, y) \) where \( z \) is the maximum number of bushels of corn that can be produced by \( z \) laborers working \( y \) acres of land. The question at hand is to determine the "distinct contributions" of labor and land, when in fact neither operating independently can produce any corn at all.

The Clark solution proceeds as follows: We define the marginal product of a production factor to be the extra
output added by one extra unit of the factor while the other factors are held constant. The marginal product of the tenth laborer, given five acres of land, for example, is $P(10,5) - P(9,5)$. The marginal product of the fifth acre of land, given ten laborers, is $P(10,5) - P(10,4)$. Let us assume, now, that the law of diminishing returns holds for each productive factor when the others are held constant. We assume that given a fixed quantity of land, each additional worker adds something to the total product, but something less than the previous worker. The marginal product of the $n^{th}$ worker, in other words, is less than the marginal product of the $(n-1)^{st}$. Similarly, we assume that the marginal product of the $n^{th}$ acre of land is less than the marginal product of the $(n-1)^{st}$ acre. Let us suppose, finally, that we are in a perfectly competitive economy of small landowners competing with each other for laborers. In this setting Samuelson sketches Clark's solution as follows:

A first man produces great marginal product because he has so much land to work with. Man 2 adds a large, but slightly less quantity of marginal product. But the two men are exactly alike; they must get exactly the same wage. Which wage? The MP of man 1? The lower MP of man 2? The average of these?

Under free competition, where landowners are free to employ as few or as many laborers as they like, the answer is plain:

Landlords will never freely hire that second man if the market wage they must pay him exceeds his marginal product. So the demand curve for labor will ensure that all the men who get hired do receive the lowest marginal-product of the last man.

What happens to the excess of MP product of the first man and all the earlier men up to the very last? That stays with the landlord. It is his residual rent. In a free competitive society no one can take it away from him. Is he "profiteering"? Not in the usual sense of the word. Each landowner is but one of thousands;
any acre of his is no better and no worse than the acres of the rest. Just as workers compete with workers for jobs, landowners compete with landowners for workers. There are no conspiracies, no employer associations, and no unions in Clark's competitive world.

We have determined not only the distributive share of labor but also land rent. . . . [I]t is inevitable under competition that all workers get paid the MP of the last worker, and, because of diminishing returns, that there be left the residual triangle of rent that goes to the landowners.9

At first glance the analysis seems to beg the question. It seems to suggest that we should say X% of the product is the contribution of labor because the market mechanism returns that portion to the laborers. This won't do for it transforms — a putative ethical claim, "capitalism rewards according to contribution" into a tautology. In order to appeal to the ethical canon of contribution, one must find some criterion for evaluating the truth of the statement: "X% of the total product is the contribution of labor, Y% of land, and Z% of capital," which is independent of the functioning of capitalism, and then one must argue that the market mechanism under capitalism does in fact distribute the product in these proportions to (the owners of) these factors.

There is more to be said for Clark's theory, however, for Clark observes that a certain symmetry exists between the case just discussed and a similar though quite distinct case. In our example we assumed that landowners were hiring laborers. In such a situation, if perfect competition prevails, wages will be set in accordance with the marginal product of the last laborer. Now, the marginal product of the last laborer is a
technical fact, compatible from the production function. That the marginal product of the last worker is the wage rate of each member is a social fact, derivable from the theory of perfect competition. Suppose we change the social situation. Let the laborers rent land from the landowners, so that the former now control the product. In a competitive market the rent will be determined by the marginal product of the last acre of land. The difference between the total product and the total rent will be the laborers' share. What Clark's analysis suggests, and what can be rigorously demonstrated, is that in either social situation, the division of the total product between laborers and landowners will be the same.

The proof is an economic application of Euler's Theorem. If the quantities involved are large relative to the unit size, the marginal products \( P(x,y) - P(x-1,y) \) and \( P(x,y) - P(x, y-1) \) are approximately equal to the respective partial derivatives \( \partial P/\partial x \) and \( \partial P/\partial y \) evaluated at \((x,y)\). Euler's Theorem states that a "well-behaved" function satisfies the equation \( P(x,y) = (\partial P/\partial x)x + (\partial P/\partial y)y \). If \( P(x,y) \) is a production function, Euler's Theorem states that the total output of \( x \) laborers and \( y \) acres of land is equal to the sum of two quantities, one obtained by multiplying the marginal product of the last laborer by the number of laborers, the other by multiplying the marginal product of the last acre of land by the number of acres of land.
Since the production function is a technical function independent of the economic organization of society, and since Euler's Theorem is a purely mathematical result, we appear to have a natural division of the total product into the respective "contributions" of labor and land which is independent of the functioning of capitalism. Furthermore, it can be shown (given the appropriate assumptions) that a perfectly competitive capitalist economy of $x$ laborers and $y$ landowners will set the wage rate at the marginal product of the $x$'th laborer and rent at the marginal product of the $y$'th acre. Thus, perfectly competitive capitalism does in fact distribute the total product in accordance with this natural criterion of "contribution."

Does this analysis establish that perfectly competitive capitalism distributes according to the canon of contribution? Is it true that each person receives in proportion to what he produces? Clark has no doubts:

It is the purpose of this work to show that the distribution of income in society is controlled by a natural law, and that this law, if it worked without friction, would give to every agent of production the amount of wealth which that agent creates.12

For Clark, this conclusion has enormous ethical and social import:

The welfare of the laboring class depends on whether they get much or little; but their attitude toward other classes—and therefore the stability of society—depends chiefly on the question, whether the amount they get, be it large or small, is what they produce. If they create a small amount of wealth and get the whole of it, they may not seek to revolutionize society; but if it were to appear that
they produce an ample amount and get only a part of it, many of them would become revolutionists and all would have the right to do so.

Everyday a definite amount is handed over by one class to another. Is this amount determined by a principle that humanity can approve or perpetuate? Does it treat men fairly? The issue is personal; but it is settled by a knowledge of functional distribution.13

The foregoing analysis has not, in fact, demonstrated that perfectly competitive capitalism results in distribution according to contribution. The analysis shows that one can define the contribution of a factor of production independently of the market mechanism, and that the market mechanism distributes according to this definition. These results may be necessary for a justification of capitalism based on the social contribution canon, but they are not sufficient. To give the claim that capitalism distributes according to contribution ethical import, it is also necessary to show that this definition of "contribution" is ethically appropriate, that it is essentially equivalent to the concept of contribution employed in the ethical canon.

There is a fundamental ambiguity in Clark's analysis which we must consider. Clark claims that every agent of production receives the amount of wealth that that agent creates. But what are we to understand by agent—the factor of production, or the owner of the factor? Is the agent of production the land or the landowner? It is the land which "contributes" in a technical sense to the production of corn, but it is the owner of the land who receives a share of the
product. The issue we must investigate is whether it is reasonable to consider the contribution of the owner of a factor—where "contribution" is to be understood ethically as entailing "deserving of reward"—to be equivalent to the "contribution" of the factor he owns—where "contribution" here is defined according to marginal product theory.

Clark fails to observe this conceptual distinction: "If each productive function is paid according to the amount of its product, then each man gets what he himself produces. If he works, he gets what he creates by working; if he also provides capital, he gets what his capital produces." Now, it may be true, ultimately, that one should regard the "contribution" of a factor to be the contribution of the owner, but an argument is required to establish this, for this is precisely what many critics of capitalism deny. Marx, for example, does not claim that labor is the only productive factor. He vigorously criticized the program of the German Workers' Party for asserting that "labor is the source of all wealth." But the issue is not whether land is necessary to grow corn, but whether the owner of land can rightly be regarded as contributing a particular fraction of the product, and hence entitled to that share of it.

To settle this issue—whether "contribution" as defined by marginal product theory is appropriate to the ethical canon, or, what comes to the same thing, whether the contribution of the owner of a factor may be rightly identified
with the technically-defined "contribution" of his factor—let us consider this definition more closely and see what such a definition entails.

The "contributions" of various factors of production are defined from the production function, a technical relation which specifies how much of a particular good can be produced, given the technology of the society, for each and every combination of relevant input factors. In our simplified model, the output of corn, \( P(x,y) \), is equal to, by Euler's Theorem, \( (\frac{\partial P}{\partial x})x + (\frac{\partial P}{\partial y})y \) where \( \frac{\partial P}{\partial x} \) represents the marginal product of the last laborer, \( x \) is the number of laborers, \( \frac{\partial P}{\partial y} \) represents the marginal product of the last acre of land, and \( y \), the total number of acres under cultivation. The quantities \( (\frac{\partial P}{\partial x})x \) and \( (\frac{\partial P}{\partial y})y \) both represent quantities of corn, the respective "contributions" of labor and land. The "contribution of each laborer is \( \frac{\partial P}{\partial x} \); the "contribution" of each landowner is the product of \( \frac{\partial P}{\partial y} \) (the rent per acre) and the number of acres he owns.

We observe, first of all, that \( (\frac{\partial P}{\partial y})y \) is not the quantity of corn that would have been produced on the land without labor. Without land and labor there would have been (virtually) no corn at all. Nor is it the quantity which would have resulted had the landowners worked the land themselves. How much the landowners could have produced is derivable from the production function if we are given the number of landlords, and if we assume that they have the skills of the laborers. If there are \( n \) landlords, then
$P(n,y)$ is the quantity of corn they could have produced, but this quantity bears no relation to the quantity $(\frac{\partial P}{\partial y})_y$, for the latter has nothing to do with the number of landlords. Under perfect competition $(\frac{\partial P}{\partial y})_y$ bushels of corn will go to the class of landlords, regardless of how many or how few of them there are, or how well or ill-skilled they are at farming.

Secondly, we notice that despite the fact that the "contributions" of the factors are technically defined, there is no technological reason for returning to the "contributors" the specific portion of the product each "contributed." The laborers, of course, must eat in order to work, so the wage rate must be at least enough to provide subsistence, but there is no technical reason why it must be $(\frac{\partial P}{\partial x})$. Similarly, a certain portion of the total social product must be devoted to replenishing the soil, and replacing deteriorating machinery, but these quantities, computable in principle from technical data, are not the quantities measured by marginal product theory. One cannot deduce, for example, from the hypothesis that the soil maintains itself naturally, that $(\frac{\partial P}{\partial y})$ will be zero. If the cultivation of one more acre by the existing workforce will increase the total product, then each landlord will make a "contribution," and will be rewarded accordingly.

It may be useful for economists and planners to compute production functions, marginal products, and the like. It may even be convenient to call $(\frac{\partial P}{\partial y})_y$ the "contribution"
of the land (though such terminology seems needlessly misleading). However, it is certainly odd to call this sort of contribution "the contribution of the owner of the factor." It does not reflect what he himself could have produced with the land, or what is necessary to replenish the factor. In fact, it does not reflect any productive activity whatsoever on the part of the owner. Clark's terminology and manner of speaking tend to obscure the point.

If each productive function is paid according to the amount of its product, then each man gets what he himself produces. If he works, he gets what he creates by working; if he also provides capital, he gets what his capital produces, and if, further, he renders service by coordinating labor and capital, he gets the product that can be traced separately to that function. Only in one of these three ways can a man produce anything. If he receives all that he brings into existence through any of these three functions, he receives all that he creates at all.17

This passage deserves careful analysis, for it is paradigmatic of the confusion inherent in the neoclassical argument.18 Clark claims that a person can create wealth in three ways: by working, by providing capital, and by coordinating labor and capital. The "coordinator of capital and labor" is the entrepreneur, the individual who borrows money from the capitalist in order to hire laborers and purchase raw materials.19 Now, such activity is clearly problematic as a universal wealth-creating activity since it appears to be tied definitionally to a specific socio-economic system. We will not pursue this problem here, however, for there is a more fundamental confusion in Clark's analysis. We will
regard the "coordination of capital and labor" as a managerial function, a human activity directly related to the production process. Thus understood, the activities of laboring and coordinating labor and capital can be said to be productive activities in a perfectly straightforward sense: if the individuals engaged in such activities (mental or physical) ceased their activity, the production of wealth would cease. If laborers and managers all went on strike, the economy would grind to a halt.

But now let us consider Clark's third way of creating wealth, namely "providing capital." How are we to understand this "activity"? Clark's model is essentially static. The contributions of various factors are calculated mathematically from the production function, which is defined in terms of a given technology. What does "providing capital" mean in this context?

It can only mean one thing. An individual "provides capital" when he "allows it to be used." The "contribution" of the capitalist is his act of granting permission, his allowing laborers to till his soil, or to utilize his other means of production.

But this "granting of permission" is a different sort of activity altogether from laboring or coordinating production. It is tied conceptually to a mode of economic organization which recognizes individual ownership of means of production.
But this mode is not essential to the production of wealth, so we cannot regard the "providing of capital" as a universal "productive activity." If laborers ceased to labor, production would cease in any society. But if owners ceased to grant permission, then production would cease only if their ownership claims were recognized and enforced. If they ceased to grant permission because their authority over the means of production was no longer acknowledged, then production need not be affected at all.

Granting permission, in short, is not a productive activity in the usual sense of the phrase. We do not say, "his permission to till the fields produced the corn." We might say, "his land produced it," but not "his ownership of the land produced it." Land is necessary to grow corn, but not landowners.

Clark's analysis exhibits a serious confusion of three distinct concepts. In any economic organization, non-human material things enter into the production of objects that human beings desire. We might properly speak of these productive resources as "contributing" to the final product, though this is an odd way of talking. In any event, the word in this context has no ethical import. We do not ordinarily say, having baked a cake, that the flour and the oven have contributed a share, much less that they deserve a slice.

Human labor, be it mental or physical, managerial or manual, also enters into the productive process, and may also
be said to "contribute" to the final product. This productive activity does, in most contexts, have ethical import. If a human being expends his mental and physical energy in cooperating with other human beings to produce an object of material wealth, he is ordinarily thought to be entitled to a share of it. A prima facie claim, at least, is established.

Ownership of a productive factor is a third concept, a social category specifying a relationship between a human being (or a group of human beings), a set of material (and sometimes non-material) things, and other human beings. "Ownership" is a concept with considerable ethical import, but it is not a productive activity.

What Clark has done, we observe, is conflate the first and the third concepts, and give the combination a linguistic form which suggests productive activity. A productive resource may be said to "contribute," though in a non-ethical sense, to the production of wealth, and ownership is an ethical category. By confusing the two and calling the result providing capital, he thinks he has uncovered a distinctive "way of creating wealth."22

The marginal product definition of "contribution" is clearly inadequate to the task of showing that capitalism distributes in accordance with the ethical canon of contribution. It provides us with a criterion for judging the assertion, "X% of the product was the contribution of labor, Y% of land, and so on," but it does so at the cost of severing
the "contribution" of the owner of a factor from anything but a legal relation to the factor itself. In Clark's static, perfectly competitive world, capitalists qua capitalists take no risks, do not innovate, do not sacrifice, do not engage in any productive activity whatsoever. The abstraction from individual activity which allows one to define the contribution of a factor in a precise mathematical sense removes from consideration any reason one might wish to give for claiming that the "contribution" of the factor is the contribution of the owner. If one is to defend capitalist distribution, one must either redefine "capitalist contribution" or abandon the social contribution canon as its justification. However mathematically elegant marginal product theory may be, it cannot serve as the basis of an ethical argument.

Capitalist Contribution as Entrepreneurial Activity

As the analysis above makes clear, a defense of capitalist distribution which appeals to the social contribution canon requires a definition of "contribution" which (1) can be formulated without reference to the market mechanism, (2) allows for quantitative interpersonal comparisons, and (3) accords reasonably well with our ordinary usage of the term in ethical contexts. A defense via contribution must then show that (4) capitalism as it exists distributes according to contribution thus defined, or would do so if
modified in a specified manner.

The marginal product definition satisfies (1), (2) and (4), but not (3). It fails to satisfy (3) primarily because it abstracts completely from all characteristic activities of property owners. An alternative definition, which does not suffer this defect, is suggested by Joseph Schumpeter's well-known critique of the marginal-product, static equilibrium model we have been considering:

The essential point to grasp is that in dealing with capitalism we are dealing with an evolutionary process. It may seem strange that anyone can fail to see so obvious a fact which moreover was long ago emphasized by Karl Marx. Yet that fragmentary analysis which yields the bulk of our propositions about the functioning of modern capitalism persistently neglects it. . . .

The fundamental impulse that sets and keeps the capitalist engine in motion comes from new consumer goods, the new markets, the new forms of industrial organization that capitalist enterprise creates.23

The "fragmentary analysis" Schumpeter refers to is the model we have been discussing, where the contribution of capital is defined in terms of a given technology. But as Marx and Schumpeter agree, the fundamental feature of capitalism is its dynamic character, its incessant revolutionizing of techniques of production. This fact suggests that instead of looking at society at a fixed point in time in order to determine the respective contributions of the capitalist and the laborers, one should compare society at different points in time. Insofar as there is an increase in output which can be attributed to the activities of the capitalists, we can define the "contribution" of the capitalists to be
this increase.

A simple model illustrates this definition. Suppose a capitalist-landowner employs ten people to grow corn. Under prevailing technological condition these workers could, let us say, produce 1500 bushels a year. But suppose our particular capitalist-landowner is an entrepreneur. He reorganizes production, innovates, perhaps introduces machinery. As a result, his workers now produce 2000 bushels. This extra 500 bushels, according to our new definition, is his "contribution."

A difficulty appears at once with this definition (if we wish to appeal to the canon of contribution), for the market mechanism will net our entrepreneur more than 500 bushels of corn. Unless the marginal productivity of his land were zero before his innovation, he would have received some income by simply using the prevailing techniques. As static equilibrium analysis demonstrates, the market will distribute the social product among the various factors of production even if there is no innovation. Capitalist distribution rewards innovation, and competitive pressures compel rivals to follow the lead of a successful innovator, but it is not the case that if innovation ceased for some period of time, then profit rates would drop to zero. The marginal product of existing capital would still be rewarded, so long as "free competition" prevailed.

Via the market mechanism, the entrepreneur in our example
will receive what he would have received had he used the prevailing techniques and a $500 bushel bonus for his innovation. He is being rewarded for two kinds of "contributions," one defined by marginal product theory, and a second defined by the increase he effected. If the argument of the previous section is sound, then the first "contribution" is not ethically significant, and so he is not being rewarded in accordance with the canon of contribution.

One might hope to avoid an appeal to the marginal product definition by returning to the dawn of capitalist production. Here, perhaps, we have the relevant base point from which to establish the contribution of capital. When we look at society at a later point in time, a certain portion of the capitalist income seems to be due solely to their ownership of means of production. But it might be argued that appearances are misleading, for this portion can be traced to creative capitalist innovation of earlier periods, in a manner suggested by the following Figure A. (The shaded region represents the contribution of labor, the white that of capital.)

Figure A
During year 0, the laborers alone produce a certain quantity of goods and consume them all. An entrepreneur emerges and introduces an innovation which increases the total product. This increase is his contribution. During the second year a second innovation takes place, supplementing the increase already in effect as a result of the first. The third year sees a third innovation, and so on, the "contribution" of the capitalist steadily mounting.

We will not question here whether this account accurately reflects the historical genesis of capitalism, but whether this definition of contribution is appropriate to the ethical canon. It appears more promising than the marginal product definition, for it links the "contribution" of the capitalist to a specific productive function, that of innovation.

We must first clarify our diagrammatic argument, for it is overly simplified and potentially misleading. The diagram suggests that innovative "contributions" never become obsolete. Such is not the case, obviously. However, the obsolescence issue is complex and will be treated later. For now we will assume that capitalist innovation is a process of supplementation rather than of "creative destruction." We will see what difficulties are raised for capitalist "contribution," and then investigate the effects of obsolescence.

Secondly, the diagram suggests that the entire increase in production since the dawn of capitalist development has been due to the activities of the capitalists. But this, too,
is a dubious assumption. Laborers now are better educated than before, more technically sophisticated, perhaps more highly skilled. A portion of the increase in the total product is no doubt attributable to the activities of the working class, and hence, must be regarded as their contribution. An argument that capitalism distributes according to the social contribution canon must demonstrate that that portion which the market returns to the laborers is due to their activities, and the quantity it returns to the capitalists to theirs.

Whether such a separation does in fact take place will not concern us here, for there is a more fundamental difficulty which requires our attention, a basic problem with the key definition of capitalist contribution. For our purposes it will suffice to assume that the workers have not increased their education nor their technical skills, and have not been directly responsible for any of the increase in productivity. We will assume also that the market does indeed distribute in accordance with "contribution" as we have defined it. Our concern will not be with the sizes of the relative shares appropriated each year by the capitalists and the laborers, but with the nature of their respective "contributions."

The essential difficulty lies in the duration of capitalist "contribution." Consider an elaboration of our earlier example. Suppose a capitalist enters the scene at year one, when ten laborers, using rude implements, produce 1500
bushels of corn per year. Our capitalist arrives with an innovative concept for a new kind of plow. He sets two of his workers into motion building the plow according to his specifications, and he reorganizes the remainder efficiently. At the end of the year his workers harvest 2000 bushels, 500 of which constitute his "contribution."

Now this concept of contribution seems unambiguous and straightforwardly ethical. But a complication arises in the second year. The process can now repeat itself, but with one important difference: no new invention is necessary. The blueprint for the plow, the reorganization scheme, the technology for a 2000 bushel harvest is now in existence. Even if the particular plows constructed during the first year have worn out, the workers can build new ones. Suppose they do, and use them to produce 2000 bushels of corn. Who, we must ask, contributes this 2000 bushels? In a sense the capitalist is still contributing 500, since the increase, measured from basepoint zero, is 500, and is due to his activity, for without the technology only 1500 bushels could have been produced. If we measure from year one, however, there is no increase, so the capitalist has "contributed" nothing, a conclusion consistent with our assumption that he has introduced no new innovations during this second period. Which sense of capitalist "contribution" do we intend when we define his contribution as the increase in production which can be attributed to his activities?
The latter sense cannot be intended, for it depends on an arbitrary specification of a time interval. If we specify one year, then the entrepreneur in our example "contributes" 500 bushels by his innovation. If we specify two, he "contributes" 1000. If twenty, 10,000. There is surely no "natural" time interval beyond which the "contribution" ceases to be that of the capitalist and becomes that of the workers.25

On the other hand, if we do not specify a limit, we have a definition of "contribution" which entails that certain "contributions" are perpetual, while others are by nature only transitory. The capitalist and his laborers expend mental and physical energy during the first year, and each makes a "contribution," the laborers 150 bushels each and the capitalist 500. The "contribution" of the capitalist continues, however, into the next year, and then into the next. If he innovates anew, he will be "entitled" to the increase brought about by the new innovation, as well as to the 500 effected by the earlier one. The "contribution" of the laborer, however, and his "entitlement" to a share of the product cease with his labor.

This notion of "perpetual contribution" is crucial to our argument, so let us consider it more closely. If distribution under capitalism accords with contribution, then a "perpetual contribution" requires a "perpetual reward." But is there any sense in which capitalism does in fact "perpetually reward" the capitalist?
The reward to capital is perpetual in at least one sense: it is not contractually connected to the entrepreneurial activities of the capitalist. The return to a laborer is ordinarily tied to the performance of tasks over a specified period of time. The length of the period, specified by the wage contract, varies from occupation to occupation, but it is usually quite definite. When he does not work, he receives no reward. With property income such is not the case. One's income may be traceable to an innovative contribution, but one is under no *contractual obligation* to anyone to continue innovating in order to maintain one's income.

But is this sense ethically significant? The income of the small farmer or the corner grocer is obviously tied to the continual performance of the activities which constitute their "contribution." Isn't this the case also with the capitalist? He is not contractually obligated to continue innovating, to be sure, but capitalism is a competitive, dynamic system. The capitalist must innovate to survive. As Schumpeter writes:

> The opening up of new markets, foreign or domestic, and the organizational development from the craft shop and factory to such concerns as U.S. Steel illustrates the same process of industrial mutation—if I may use that biological term—that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism. It is what capitalism consists in, and what every capitalist has got to live in.26

Schumpeter's description of capitalist reality seems plausible; so does the argument of the preceding paragraph which questions the ethical significance of the "contractual"
perpetuity of capitalist reward. The parallel between the capitalist and the corner grocer, however, is fundamentally misleading, for contract or no, the income of the grocer or of the small farmer will cease when his labor ceases, while the income of the capitalist need not end with either the cessation of his innovative activity or the obsolescence of his innovation. Consider our model. Suppose a second innovator invents a plow more efficient than our original entrepreneur's, thus rendering the earlier design technically obsolete. Will the first entrepreneur's 500 bushel yearly reward vanish? Will his "contribution" end with the technical obsolescence of his innovation?

There is no necessity for this to happen. If our entrepreneur has been consuming his 500 bushels each year, he may continue to do so, for his laborers still produce 500 more than they could on their own with rude implements. If he can make suitable arrangements with the second entrepreneur, he can even increase his consumption. The increased "efficiency" of the new plow indicates that the increase in yield which the innovation makes possible more than offsets the additional labor (if any) that goes into its production. Hence, if our first capitalist can gain access to the blueprint (by paying royalties or a fixed fee, or merely by observation), he can set his workers to work building the new plow, and reap an even larger yearly "reward."

This scenario suggests the Marxian dictum that capital
is command over the labor-power of others,\textsuperscript{27} but it appears, perhaps, too far removed from capitalist reality, since we have not complicated our model with production for a market, capital investment, price and wage competition, and the like. One might suspect that such factors prevent a capitalist's being rewarded in perpetuity.

If we look at capitalist reality, however, we find a plethora of institutions which do in fact reward "eternally." A stock of capital, however acquired, may be invested by an individual as he sees fit. He may put it in a savings account, or buy government or corporate bonds with it; in either case, he can collect interest indefinitely. He may purchase stock and collect yearly dividends. Such rewards are clearly independent of the fate of the original innovation (if there was one) to which the original stock of capital is traceable, and independent as well of his present activities. Galbraith's trenchant remark points to this phenomenon:

No grant of feudal privilege has even equalled, for effortless return, that of the grandparent who bought and endowed his descendants with a thousand shares of General Motors or General Electric. The beneficiaries of this foresight have become and remain rich by no exercise of effort or intelligence beyond the decision to do nothing, embracing as it did the decision not to sell.\textsuperscript{28}

It must be admitted then that under capitalism some rewards are "perpetual" in an ethically significant sense.\textsuperscript{29} If one wishes to defend capitalist distribution by an appeal to the contribution canon, one must therefore defend the contention that some contributions are perpetual, and hence
deserving of perpetual reward.

Perhaps this is not implausible. Innovations, even when they are supplanted, have often served as the basis for the new technology, and so in some sense their effects persist. (Einstein stood on Newton's shoulders.) Surely there is nothing ethically objectionable about rewarding lasting contributions lastingly.

To see the problem with this argument, let us return briefly to our original entrepreneur and his new kind of plow. What exactly was the nature of the "contribution" that qualified it as "perpetual"? The seemingly obvious answer that he has created a new kind of productive instrument, and reorganized production in a particularly efficient manner will not do, not if such activities are to serve to justify his reward under capitalism. For he need not have done these himself. He could have hired a scientist or an engineer to create the plow, and a managerial expert to reorganize his farm. Such people are regularly employed as wage laborers in a capitalist society. If capitalism rewards according to contribution, then such technical activities cannot be "perpetual" contributions, for they are not rewarded perpetually. Nor will it do to say that the idea to construct the new plow was his, and that such ideas are eternal contributions, for the idea itself could have originated in our capitalist's research and development division. Ideas and their execution frequently originate in such places in modern capitalist society. A
"perpetual" reward may follow from the idea, but it does not necessarily go to the originator.

It is tempting to say that the capitalist supplies the money. This is certainly his distinctive "service" qua capitalist. But this cannot be his "contribution," for supplying money or providing capital is no more a productive activity in this dynamic situation than it was in the static case analyzed earlier. The workers to be hired already exist, as do the food, clothing and shelter which their wages will buy. Other workers have made them, just as other workers have dug from the ground the coal to fire the factories, and still others have provided the raw materials for his workers to utilize.

It is true that the capitalist serves to allocate resources. His decision to "supply money" for a particular endeavor results in setting a certain portion of the workforce to work in that activity rather than another, but so do the decisions of hired executives, managers, and foremen. There is nothing distinctive in a technical sense about this activity when performed by a capitalist.

It should be noted that one cannot appeal here to risk. The "taking of financial risk" is not a productive activity, at least not one that can be defined independent of the social system. Society need not be so organized that people must risk their fortunes to bring about innovation. (The technical achievements of socialist countries attest to this.)
An appeal to risk goes beyond the bounds of the social contribution canon. 30

The fact of the matter is that it is impossible to find a distinctive productive activity (or class of activities) definable independently of the socio-economic system which is engaged in exclusively (or even predominantly) by capitalists. Yet such a distinctive activity is essential to a defense of capitalism which is grounded on the contribution canon, for such a defense implies, as we have seen, that the "contribution" of the capitalist is distinctively perpetual, while that of the worker is not.

We conclude, therefore, that our second definition of capitalist contribution—the increase effected by him over time—fares no better than the marginal product definition in establishing that capitalism distributes in proportion to contribution. The marginal product definition fails to establish an ethically relevant link between the technically defined "contribution" of the productive factor and the productive activity of the owner of the factor. The "entrepreneurial" definition attempts such a connection, but this connection does not survive analysis. For although one might define an "entrepreneur" independently of the socio-economic system, one cannot do so in such a way as to make the class of entrepreneurs coextensive with the class of capitalists. 31

Such coextensiveness might once have been roughly the
case, but it scarcely seems so today. Nor is there anything in the structure of capitalism which suggests that this divergence is an aberration. It seems more reasonable to suppose, as Schumpeter himself does, that such a divergence will become ever more pronounced as capitalism continues to develop:

To act with confidence beyond the range of familiar beacons and to overcome that resistance to change requires aptitudes that are present in only a small fraction of the population, and that define the entrepreneurial type as well as the entrepreneurial function...

This social function is already losing importance and is bound to lose it at an accelerating rate in the future even if the economic process itself of which entrepreneurship was the prime mover went on unabated. For, on the one hand, it is much easier now than it has been in the past to do things that lie outside the familiar routine—invention itself is being reduced to routine. Technological progress is increasingly becoming the business of trained specialists who turn out what is required of them and make it work in predictable ways...

On the other hand, personality and will power must count for less in environments which have become accustomed to change—best instanced by an incessant stream of new consumers' and producers' goods—and which instead of resisting accepts it as a matter of course. The resistance which comes from interests threatened by innovations in the productive process is not likely to die out as long as the capitalist order persists. But every other kind of resistance—the resistance in particular of consumers and producers to a kind of thing because it is new—has well-nigh vanished already.

Interest as a Reward for Waiting

The basic problem in trying to justify capitalism by an appeal to contribution is the impossibility of identifying an activity or set of activities which could be called "contributions" in an ethically relevant sense, engaged in by
almost all capitalists, and only by them. It is true that some capitalists innovate, reorganize, invent; but it is also true that many do not. This fact is readily acknowledged by economists, and is reflected in their distinction between "interest" and "profit." Interest is the "natural" return to capital, the reward for owning property. Profit includes interest, but also the rewards for risk and entrepreneurial achievement. Samuelson's definition of the "market rate of interest" exemplifies this distinction:

The market rate of interest is that percentage of return per year which has to be paid on any safe loan of money, which has to be yielded on any safe bond or other security, and which has to be earned on the value of any capital asset (such as a machine, a hotel building, a patent right) in any competitive market where there are no risks or where all the risk factors have already been taken care of by special premium payments to protect against any risks. 

A basic problem, then, in trying to justify capitalism by an appeal to contribution is the justification of interest, a reward which does not require any entrepreneurial activity on the part of its recipient. But if interest is not the reward for such activity nor for risk, what then is it a reward for? Alfred Marshall, the most prominent of the pre-Keynsians of this century, responds with a basic neoclassical justification: interest is the reward for waiting.

It is not true that the spinning of yarn in a factory, after allowance has been made for the wear and tear of the machinery, is the product of the labor of the operatives. It is the product of their labor, together with that of the employer and subordinate managers, and of the capital employed; and that capital
itself is the product of labor and waiting. If we admit it is the product of labor alone, and not of labor and waiting, we can no doubt be compelled by inexorable logic to admit that there is no justification of interest, the reward of waiting; for the conclusion is implied in the premises.

To put the same thing in other words, if it be true that the postponement of gratification involves in general a sacrifice on the part of him who postpones, just as additional effort does on the part of him who labors, and if it be true that this postponement enables man to use methods of production of which the first cost is great, but by which the aggregate of enjoyment is increased, as certainly as it would be by an increase of labor, then it cannot be true that the value of a thing depends simply on the amount of labor spent on it. Every attempt to establish this premise has necessarily assumed implicitly that the service performed by capital is a "free good," rendered without sacrifice, and therefore needing no interest as a reward for its continuance.

Marshall suggests two distinct justifications of capitalism, one based on the canon of contribution and one based on another canon, that of sacrifice. Insofar as this passage is an argument concerning contribution, it fails for the reasons set out in the first section of this paper. Marshall does not observe the distinction, crucial to the ethical argument, between the "contribution" of capital and the activity of the capitalist. This is striking in the last sentence, for the premise he is intent on destroying, that the "service of capital" is rendered without sacrifice and therefore needs no interest as a reward for its continuance, is surely true. One does not "induce" a field to grow corn by paying it interest. The spinning wheel does not need to be "rewarded" for turning cotton into yarn. The landowner may need inducement to allow the farmworker to till, and the capitalist may demand a reward for permitting laborers to use "his"
spinning wheels, but that, as we have shown, is a separate
matter.

Insofar as Marshall's argument is an appeal to the con­
tribution canon, it does not differ significantly from
Clark's argument, and hence is unsound. But it need not be
construed so simply, for it also appeals to the sacrifice of
the capitalist, and to the increase in the "aggregate of en­
joyment" due to this sacrifice. The ethical appeal presum­
ably is this: the creation of the social product requires
sacrifice on the part of each member of society; hence it is
fair that one's share be proportional to one's sacrifice.

Now, a defense of capitalist distribution based on sacri­
ifice requires three steps: one must specify the nature of the
sacrifice of each member; one must find a common standard by
which to measure respective sacrifices, and finally, one must
show that capitalism does indeed distribute income more or
less in proportion to sacrifice so measured.

Now, the sacrifice of the laborers seems relatively

clear; they sacrifice their leisure; they undergo, to a
greater or lesser degree, physical and mental discomfort.

What is the sacrifice of the capitalist? To what is the lab­
orer's discomfort to be compared?

Marshall's answer seems straightforward: he postpones

gratification. In confronting the choice between consuming
his wealth at once and deferring consumption to a later date,
he generally finds it painful to postpone gratification, and
this pain is not completely compensated for by his later consumption.

How does one quantify sacrifice so as to allow interpersonal comparisons? Marshall's rule appears to be as follows: the quantity of sacrifice a capitalist makes in deferring consumption is measured by the magnitude of the increase in goods brought about as a result of his abstinence. If, for example, instead of spending $1000 on items personal consumption, he invests it in a machine which increases in a year's time the output of corn by 100 bushels, then this 100 bushels measures his sacrifice. This can be compared with the sacrifice of the laborer by determining how much additional labor, in the absence of the machine, would be required to produce a hundred bushels of corn.

There is a fundamental flaw in this formulation. There is no evident connection between what is supposed to be measured and what is in fact being measured. We are supposed to be measuring "sacrifice," understood as a physical or psychological discomfort, but we are in fact measuring an increase in production. One cannot define the quantity of sacrifice to be the increase in production brought about by that sacrifice, for this reduces a seeming appeal to the canon of sacrifice to a disguised (and confused) appeal to the canon of contribution.

An alternative formulation of Marshall's argument avoids this difficulty. Marshall may be claiming that it is an
empirical fact rather than a matter of definition that the quantity of pain and discomfort is proportional to the size of the increase effected by the sacrifice. If such a proposition is true, then Marshall is not only guiltless of the above charge; he has also provided an ethically relevant link (such as we were unable to discover in our analysis of the contribution canon) between the owner of property and the productive contribution of that property.

Before questioning the plausibility of this empirical assertion, let us consider its rationale. Interest rates, according to Marshall, are determined by the "money market," which brings entrepreneurs in search of capital face to face with households tempted to save. The market is in equilibrium when interest rates are such that they call forth exactly as much savings as entrepreneurs are desirous of borrowing.

Suppose, for example, that the market is in equilibrium at 4%. This means that the average saver will not lend money at less than 4%, thus indicating that he requires a 4% premium as a "reward for waiting," to compensate for his sacrifice of immediate gratification. Now, with the market in equilibrium there is an entrepreneur willing to borrow at 4% what a saver is willing to save at that rate. The person with $1000 who will save it if compensated at $40 will find an entrepreneur eager for that money, for he, the entrepreneur, can reasonably expect to increase productivity by enough to pay the $40 premium and still have sufficient excess to reward himself for his
risk and entrepreneurial skills. Thus we have the required quantitative connection between the pain and suffering of deferred gratification and the productive contribution of the $1000.

There are at least two kinds of criticism that can be levelled against this account. One can deny that this paradigm is applicable to economic reality. Secondly, one can argue that the model, if descriptively accurate, entails the exact opposite of the intended ethical conclusion. Let us consider both. A Marxist is inclined to take the first approach. The Marshall model depicts society as divided into two groups, households which consume and save, and entrepreneurs who borrow and innovate. The plausibility of regarding the pain of deferred gratification as something akin to the discomfort of labor rests on the implicit assumption that the typical savings unit is a small- or medium-income household, for it is not implausible that in such a setting a worker would require some monetary incentive to entice him into depositing a portion of his paycheck into a savings account, a sum which compensates him for the pain of postponed consumption. 38

But if one assumes, as a Marxist does, that it is more realistic to regard society as composed of two classes, one, comprising the large majority, which saves but little, and another, the class of capitalists, which does the bulk of saving and investing, then the comparability of the "sacrifice"
of postponement with the "sacrifice" of labor evaporates. Marx makes the obvious point:

The more, therefore, capital increases by successive accumulations, the more does the sum of value increase which is divided into consumption-fund and accumulation-fund. The capitalist can, therefore, live a more jolly life and at the same time practice more "abstinence." Not only does the pain of postponement decrease as one's wealth (and one's actual consumption) increases, but the positive pleasures associated with deferred consumption undergo qualitative change. As Marx observes: "To accumulate is to conquer the world of social wealth, to increase the masses of human beings exploited by him, and thus to extend both the direct and indirect sway of the capitalist." The pleasure of "abstinence" for the small saver consists mainly in a certain feeling of security, and an anticipation of later consumption, pleasures perhaps insufficient to counterbalance the pleasure of immediate gratification. For the capitalist, however, "abstinence" produces more than mere security and the anticipation of later consumption. Once wealth increases beyond a certain point, it brings with it power over other people, political influence, social prestige. The possession of productive wealth, the effect of "abstinence," appears as pleasurable in its own right as unproductive consumption. To speak here of "sacrifice," conceived of (as it must be for a legitimate appeal to the canon of sacrifice) as physical and mental discomfort, is surely wrong.
This Marxian objection derives from a denial of the applicability of Marshall's model to reality. Such a denial, though in my view correct, is unnecessary in disposing of Marshall's argument. For even if his model accurately depicts reality, the ethical conclusion that capitalism distributes in proportion to sacrifice does not follow.

To see this, let us grant the basic assumption that the premium an individual requires to entice him into saving accurately measures the pain he feels in sacrificing immediate gratification. Let us assume also that society consists of households and entrepreneurs, whose interaction determine interest rates in accordance with Marshall's general theory. One can deduce from these premises that capitalism does not distribute according to the canon of sacrifice.

Suppose the money market is in equilibrium, the interest rate, say 4%, just right to balance the supply of money from households with the demand for money by entrepreneurs. The neoclassical theory of interest determination, to which Marshall subscribes, holds that the equilibrium rate of interest is determined by the marginal utility of capital. The 4% rate (in our example) is required to entice that last portion of money from the pockets of savers necessary to bring total savings into equilibrium with total investment. Now, unless it should be the case that nobody would save at a lower rate of interest (scarcely a plausible assumption, nor one consistent with neoclassical theory), then some people would save
at 3%, though presumably fewer, some at 2%, and so on. Given our original assumption that the premium a person requires to induce him to save measures the pain of his sacrifice, we deduce that these people have evaluated the pain of postponement at a lower figure than the prevailing market rate of interest, and hence they are being overcompensated for their pain. Therefore, distribution is not in accordance with the canon of sacrifice.

This argument, we observe, does not show that capitalists are being overcompensated, but only that some individuals are. Considerations introduced in the Marxian argument, however, suggest that the overcompensation is particularly pronounced in the case of a capitalist's savings. The assumption that the premium required to induce an individual to defer consumption measures his sacrifice entails that those who suffer the least pain are being overcompensated the most by the market. We argued above that as wealth increases, the pain of "abstinence" declines and the pleasure of "abstinence" increases. This being so, the capitalist is hardly likely to be suffering as acutely as the small saver. Indeed, it is extremely convenient for the capitalist that there are social institutions which will pay him for the use of his accumulated wealth. Without them he might have to pay for storage and for guards. Immediate consumption would scarcely appear more pleasurable than "abstinence." His "pain of abstinence," if quantifiable in an ethically relevant sense, would probably be negative. His pain, that is, is pleasure.
There is, to be sure, a core of truth to the notion that capital is the "product of waiting," which neither Marxists or anyone else need deny. Capital accumulation is generally a necessary condition for increasing productivity. Such accumulation is possible only if consumption is "deferred" in the following sense. In order to bring physical capital into existence—a factory, say, designed to manufacture tractors—certain human beings must spend their time building it. If instead those workers had spent their time tilling the fields, society would have had somewhat more corn immediately. In order to have a larger increase at a later date, some potential present consumption must be sacrificed. In this sense capital is the result of "deferred" consumption, and is the product of "labor and waiting."

The market mechanism under capitalism does indeed channel the workforce in such a way that consumption is "sacrificed" in this sense. But if this "sacrifice" correlates at all with actually experienced pain, the pain is not primarily experienced by the capitalists, the recipients of the "compensation."

It is true, therefore, that capital accumulation requires a deferring of consumption, and it is no doubt true that the interests of society are best served by continually "sacrificing" some consumption. But these facts no more justify the claim that capitalist distribution is proportional to sacrifice than the fact that innovative activities contribute to
production justifies the contention that it is proportional to contribution. A serious defense of capitalism must forswear appeals to either of these traditional canons. However important these canons may have been historically to the capitalist apology, and however valid they may be as ethical principles, they are incapable of providing an intellectually sound basis for such a defense today.
Notes

1 John Bates Clark, The Distribution of Wealth (New York, 1956), pp. 4-5. (This work was originally published in 1899.)


3 Nozick, p. 158.

4 Nicholas Rescher, Distributive Justice (New York, 1966), p. 78. This canon is called variously the canon of "productivity," "social contribution," "productive contribution," or simply "contribution." We will use these terms interchangeably.

5 Schumpeter himself does not argue that capitalist distribution accords with contribution. We have associated his name with this argument because he is the foremost exponent of the view that the "entrepreneur" is the cornerstone of capitalism.


8 This has nothing to do with the relative skills of the workers, which are assumed to be equal. It derives from the assumption that as agriculture becomes more intense, one gets, beyond a certain point, steadily less output per person.

9 Samuelson, Economics, p. 539.

10 "Perfect competition" is a state of affairs without monopolistic collusion, wherein each individual attempts to maximize his own economic well-being. Wages will be at least as high as the MP of the last laborer, for if they were lower, each landowner would try to entice laborers away from their neighbors. Wages will not be any higher than that, for that would involve paying the last person more than he yields.

11 P(x,y) must be smooth and homogeneous of order one. This latter condition (in mathematical terms, P(ax,ay)=P(x,y) for all a) translates into the economic condition that there be constant returns to scale. Increasing all the production factors by a% results in an a% increase in the total product. The former condition requires that a smooth variation in input factors produce a smooth variation in output. (We will not be concerned with whether these conditions apply to economic reality.)
Labor is not the source of all wealth. Nature is just as much the source of use values (and it is surely of such that material wealth consists!) as is labor, which is itself only the manifestation of a material force, human labor power." [Emphases Marx's.] Karl Marx, Critique of the Gotha Programme (New York, 1938), p. 3. Marx also stresses the differences between "private property" when worked by its owner and "private property" when worked by wage laborers. Cf. Capital (New York, 1906), I, 834.

If technical conditions should require that 100k% of the corn crop be turned under each year to maintain fertility, then the production function itself would reflect this fact, since it must be understood in this context as expressing net output. All else equal, this production function $P_2$ will equal $(1-k)P_1$, where $P_1$ is the production function in the case where the soil maintains its fertility naturally. Hence, $\frac{\Delta P_2}{\Delta x} = (1-k)\frac{\Delta P_1}{\Delta x}$ and $\frac{\Delta P_2}{\Delta y} = (1-k)\frac{\Delta P_1}{\Delta y}$; rent and wages are both 100k% less. It will not be the case (unless the net marginal product of the land is zero) that landlords receive only enough corn to replenish the fertility of their soil. They will receive that, plus $(\Delta P/\Delta y)y$.

Contemporary neoclassical economists are reasonably sensitive to the spuriousness of Clark's ethical argument, though they persist in using misleading terminology. H. C. Johnson, for example, writes, "To my mind the positive theory that factors derive their incomes from their contributions to the productive process should be sharply distinguished from the question of whether owners of factors are ethically entitled to own them, or whether their returns would be different if ownership or preferences were different. (The Theory of Income Distribution [London, 1973], p. 37.) Our point is, to say that factors derive their incomes from their contributions is to use the word "contribution" in a very odd manner, one which tends to direct the ethical debate toward the validity of the contribution canon (Should one get what one contributes?) rather than toward a concrete analysis of the nature of this "contribution."

Capitalist, laborer and entrepreneur are the standard categories of neoclassical economics. They are conceived of as functional categories rather than as classes of people. Insofar as a person engages in productive labor,
he is a laborer; insofar as he owns capital, he is a capitalist; to the degree that he "coordinates labor and capital" he is an entrepreneur. It is often more appropriate for our purposes to translate these functional categories into class categories. A person is a capitalist if he derives the bulk of his income from his function as capitalist, a laborer if he derives the bulk of his income from his labor, etc. We will not be concerned with borderline cases.

20 Innovation, if there is any, is traceable to the "entrepreneur," not the "capitalist."

21 It is not clear that Clark realizes this, though he explicitly restricts his attention to the static situation. (Cf. Clark, p. vi.)

22 The absurdity of this claim becomes evident if we try to apply Clark's category to other forms of society in order to ascertain who creates what, and whether distribution in that society accords with "contribution." A feudal lord, for example, who owns far more land than his peasants can till, creates, in "providing land," no wealth at all, because the marginal product of his last acre is zero. But as his peasant population grows, and with it the marginal product of his last acre, his "contribution" increases. The tribute once unjustly charged becomes fair, even philanthropic, as the share of the wealth "he creates" expands.


24 How the workers became his workers is a question we will not consider. To avoid ethical complications, we will assume that they are being paid somewhat more than the 150 bushels they could reap on their own, so that it is in their own self-interest to work for him. (We will presume this for the sake of argument without looking at the matter too closely.)

25 The natural life of the capitalist might seem to be a plausible candidate, a thought which perhaps underlies arguments for a confiscatory inheritance tax. We will not consider the question of inheritance, however, for it distracts from the real problem with capitalist contribution, which would be present even if capitalists lived forever.

26 Schumpeter, p. 83.

27 "Property in money, means of subsistence, machines and other means of production does not yet stamp a man as a capitalist if there is wanting the correlation—the wage-
laborer, the other man compelled to sell himself of his own free will... [C]apital is not a thing, but a social relation between persons, established through the instrumental-ity of things." Capital, I, 839.


29 We do not maintain, needless to say, that the reward is necessarily eternal. We mean that its continuance is linked neither theoretically nor in practice to the continuance of the innovative activity which served (perhaps) as its foundation.

30 Whether rewarding risk is the most effective way of stimulating innovation is a separate question, relevant to a utilitarian or Rawlsian defense of capitalism, but not to the one under present consideration.

31 By "capitalist, recall, we mean an individual who derives the bulk of his income from property ownership. I know of no statistic directly applicable to this definition, but a class so defined is both small and significant in the United States today. In 1953 (the focus of a classic study by Robert Lampman), only 1.5% of the adult population of the U.S. had gross estates of $60,000 or more, but this class owned 27.6% of all the privately owned wealth. (Cf. Ferdinand Lundberg, The Rich and the Super-Rich [New York, 1968], p. 9.) No comfort can be taken from the date of the study, for as Smith and Franklin have shown, the concentration of wealth has not changed significantly since then. (James D. Smith and Stephen D. Franklin, "The Concentration of Personal Wealth, 1929-1969," American Economic Review, May 1974, p. 162.

32 Schumpeter, p. 133.

33 The terminology is not standard among economists, but the distinction is invariably made. Some refer to Net Interest and Gross Interest; some use "profit" to refer to what others call "pure profit," the difference between profit (in the inclusive sense) and interest.

34 Economics, p. 599.


Actually Marshall's theory holds that the saver at the margin, not the average saver, requires this compensation. We use "average saver" here to give the story more ethical plausibility, but we will return to this distinction below.

It is also plausible that interest rates have little to do with a moderate-income household's choice between saving and consuming, but we will waive this objection.

This assumption seems closer to reality. As Simon Kuznets observes, "According to all recent studies, only the upper income groups save; the total savings of groups below the top decile are fairly close to zero." Economic Growth and Structure (New York, 1965), p. 263.

Capital, I, 667.

Ibid., p. 649.

Joan Robinson is in agreement here. "Of course, in reality the 'reward' of owning wealth is owning wealth, whether or not it yields income; the 'reward' of saving is an addition to wealth." Economic Heresies (New York, 1971), p. 28.

Chapter Two

PERFECT COMPETITION IN STATIC EQUILIBRIUM:
UTILITARIAN CONSIDERATIONS

The utilitarian defense of capitalism, the focus of this dissertation, is complex and many-faceted. It will require considerable analysis. We must confront what I consider to be capitalism's strongest arguments. Not only must entirely new arguments be analyzed, but many of those we have already dismissed must be reconsidered, for they can be recast in utilitarian terms and strengthened thereby. Marshall, for example, need not claim that everyone is rewarded in proportion to his sacrifice under capitalism—the necessary claim under the canon of sacrifice—but that unless people are rewarded for saving, not enough saving would take place to finance the investment necessary for maximization of the common good. Clark or Hayek need not define "social contribution" in an ethically relevant manner, but need only argue that capitalist allocation and distribution has better overall consequences than socialist alternatives. A Schumpeterian defense need not rest on the untenable proposition that capitalists and entrepreneurs comprise the same set, but on the weaker claim that without capitalist incentives, the socially useful entrepreneurial class would not develop
The utilitarian defense of capitalism consists essentially of three arguments, more or less distinct: (1) that capitalist production is more efficient than other alternatives in utilizing existing resources, (2) that capitalism is more conducive to innovation and growth than other systems, and (3) that capitalism is more compatible with and conducive to non-economic ends which are socially desirable—liberty, democracy, etc. The first two arguments are "economic" while the latter is not. (Insofar as efficiency has ethical connotations, this distinction is not sharp, but it will suffice for our purposes.) In this chapter we will examine the first of these arguments.

It is perhaps worth noting that, while the analysis we will undertake is utilitarian, much of it could be easily modified to fit a Rawlsian ethic. The reasons we will advance for denying that capitalism can be justified on utilitarian grounds should suffice with little change as reasons for denying that capitalist distribution accords with the Rawlsian criteria.

That this should be so is not surprising, for the Rawlsian criteria for justifying inequalities of wealth are, on the whole, more stringent than the utilitarian criterion. For a utilitarian, inequality is justified if it produces greater happiness for more people than does equality. For Rawls the inequality, if it is just, must work to the
advantage of everybody, or at least to the advantage of the least advantaged representative person in society. Rawls rejects the utilitarian criterion: "One is not allowed to justify differences in income or organizational powers on the ground that the disadvantages of those in one position are outweighed by the greater advantages of those in another." The procedure for determining which inequalities are just is not to determine which inequalities maximize the aggregate welfare, but rather

... in a basic structure with n relevant representatives, first maximize the welfare of the worst-off representative man; second, for equal welfare of the worst-off representative, maximize the welfare of the second worst-off representative man, and so on until the last case, which is, for equal welfare of all preceding n-1 representatives, maximize the welfare of the best-off representative man.

Actually, the Rawlsian criteria are not logically more stringent than the utilitarian. It does not follow, for example, that if capitalist distribution fails to satisfy the utilitarian canon, it necessarily fails the Rawlsian. Consider a capitalist society with a Gross National Product of $18, distributed $12, $3 and $3. Suppose one could show that the same real GNP could be attained under a non-capitalist distribution scheme of $8, $8 and $2. Now, if we measure the extent of inequality by the sum of the deviations of individual incomes from the mean, the capitalist society has an inequality measure of $(12-6)+(6-3)+(6-3)=12$, while the alternative society has an inequality measure of 8. Thus (if we assume that GNP is an adequate index of aggregate
welfare), capitalist inequality is not justifiable on utilitarian grounds. However, since the position of the worst-off person is lower in the alternative society than under capitalism, the non-capitalist alternative is not preferable on Rawlsian grounds, and so would not provide a Rawlsian refutation of capitalist inequality.

Such hypothetical cases do not raise difficulties for our specific arguments. We will concentrate on showing that there is little reason to believe that the general level of material well-being would decline under a socialist reorganization of (modern) capitalist society, and good reason to expect the general welfare to be higher. To recast this critique in Rawlsian terms, one would merely have to observe that there is little reason to expect the worst-off class to become even worse off under socialism. Such a conclusion seems eminently reasonable if it is true that the overall prosperity will not decline under socialism. Socialists have been accused of advocating policies which would harm the poor, but only on the grounds, so far as I know, that such policies would cause such economic disruption that the general prosperity would plunge.

The "Impossibility" of Socialism

Let us turn our attention now to the "efficiency" argument, to the claim that capitalist production is more efficient than alternative arrangements. We will consider
in this chapter "static" rather than "dynamic" efficiency, the latter being part of the growth argument analyzed in Chapter Four. We are interested in this specific question: given a fixed technology, labor force and supply of natural resources, which social system will maximize welfare? We do not assume that demand is fixed, or that tastes do not change, but that the technology is fixed. Questions about "efficient" changes in technology will be treated in the "dynamic" case.

The alleged connection between capitalism and social welfare was enunciated long ago by Adam Smith:

Every individual endeavors to employ his capital so that its product may be of greatest value. He generally neither intends to promote the public interest, nor knows how much he is promoting it. He intends only his own security, only his own gain. And he is led by an invisible hand to promote an end which was no part of his intention. By pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it.  

To evaluate the claim that capitalism is optimally efficient, we must consider the question of ends, since one can scarcely speak of "efficiency" without specifying what it is that is being efficiently realized. Maximal social well-being is the basic end within our utilitarian framework, but that needs to be more concretely specified.

One negative end comes at once to mind. An optimally efficient economic system should not generate gross quantities of material waste. It has been argued that socialism inevitably involves such waste, that without private
property no rational calculation is possible. Let us examine this argument.

The claim that "socialism is impossible" was advanced in 1920 by the Austrian economist Ludwig von Mises. Mises begins by asserting that without private ownership of means of production, there cannot be a market (in the competitive sense) for production goods.\(^5\) (There might be, he acknowledges, for consumer goods.) He continues:

Just because no production good will ever become the object of exchange, it will be impossible to determine its monetary value. Money could never fill in a socialist state the role it fills in a competitive society in determining the value of production goods. Calculation in terms of money will here be impossible.\(^6\)

But without monetary calculation, Mises charges, economic rationality\(^7\) is impossible:

Without economic calculation there can be no economy. Hence in a socialist state wherein the pursuit of economic calculation is impossible, there can be—in our sense of the term—no economy whatsoever. In trivial and secondary matters rational conduct might still be possible, but in general it would be impossible to speak of rational production anymore. There would be no means of determining what was rational, and hence it is obvious that production could never be directed by economic considerations.\(^8\)

There are two approaches to refuting this contention. One is to observe that the argument rests on a false premise: that without a market one cannot determine the "value" of a product, where "value" is understood to be a quantitative measure of the product in units common to all products which can serve in making economic calculations.

The Mises article prompted a number of economists\(^9\) to
point out that in 1897 Vilfredo Pareto had demonstrated (implicitly) that "value" computation is independent of the method of distribution. This result was made explicit by Pareto's disciple, Enrico Barone, in the context of value computation by "the ministry of production in the collectivist state." Insofar as Mises was claiming that socialist value calculation is theoretically impossible, it is universally conceded now that Mises was wrong.

An alternative approach to the "impossibility argument" is to take a brief look at modern socialist reality. One might consider, for example, the Soviet economy:

The Soviet command economy has failed to succumb to alleged internal contradictions after more than half a century of operation, though at one time some prominent Western economists saw such a result as inevitable. We use the term "command economy" to indicate that resource allocation basically proceeds according to administrative order rather than to market signals. The long run ability of the Soviet system to function without private ownership of the factors of production and without profit motivation is no longer seriously questioned. The Soviet Union has established itself as the world's second largest economic power... and it would now be foolish to question its economic viability.

Similar observations might be made regarding other socialist economies. (China and Yugoslavia are particularly interesting in that they represent two distinct socialist alternatives to the Soviet model.) Notice, however, that such observations do not refute capitalism's claim to "optimal efficiency," since we have not yet settled on a precise meaning for "optimal efficiency." But they do refute the crude claim that material well-being is impossible under
socialism. Whether material (and non-material) welfare is optimal is another matter.

Capitalism: the Perfect Competition Model

To assess capitalism's claim to optimal efficiency within the context of the utilitarian canon, let us begin by reversing the Mises charge, and ask whether capitalism has any claim to rational resource allocation. It is one thing to assert with Adam Smith that pursuit of private gain will maximize social welfare; it is another to give reasons for this assertion. Can one prove it, even under ideal circumstances? Can one show that in some sense capitalism provides a utilitarian maximization of good?

Let us begin with capitalism's "best case," the perfect competition model. Does the perfect competition model accomplish anything that might be construed as maximizing the common good? What additional assumptions are necessary, if any, to yield some such result?

Perfect competition theory begins with a definition and two principles of motivation. Perfect competition is a free market economy where individuals and firms are "price-takers" and not "price-makers." They are unable to take into account the effect on price levels of their own decisions to buy or sell. When they act, they act as if prices were fixed and unchanging. What motivates them to act? Individuals always act to maximize individual utility; firms act so as
to maximize profits.

Now, before proceeding further, we observe that if individuals and firms act in terms of prices, and if the outcome is to be maximization of total utility, there must be some connection between the prices of commodities and their utility. Adam Smith puzzled over this connection: Why is it that water, which is so very useful has such a low price, while diamonds, which are quite unnecessary, have such a high price? But according to Samuelson, thanks to neoclassical economics we now have an easy solution to this paradox.

Diamonds are very scarce, the cost of getting extra ones is high; and water is relatively abundant with its cost low in many areas of the world. ... [Adam Smith] would probably have let it go at that, and would not have known how to reconcile these facts about cost with the equally valid fact that the world's water is more useful than the world's supply of diamonds. ... He was content simply to point out that the "value in use" of a good--its total contribution to economic welfare--is not the same thing as its "value in exchange"--the total money value or revenue for which it will sell. Smith had not arrived at the point where he knew how to distinguish marginal utility from total utility!

Today we would add to the above considerations a second truth:

The total utility of water does not determine its price or demand. Only the relative marginal utility and cost of the last little bit of water determines its price. Why? Because people are free to buy or not to buy that last little bit. If water is priced higher than its marginal utility, then that last unit cannot be sold. Therefore, the price must fall until it reaches exactly the level of usefulness of the last little bit, no more and no less. Moreover, because every unit of water is exactly like every other unit and because there is only one price in a competitive market, every unit must sell for what the least useful unit sells for.

Samuelson is not contradicting himself when he asserts
that price is determined by the marginal utility and cost, and then, a sentence later, that price is exactly equal to marginal utility. Perfect competition theory asserts that relative prices simultaneously express relative marginal utilities and relative marginal costs. In competitive equilibrium, according to the theory, where corn costs $1 per bushel and wheat $2 per bushel, the utility to be gained from one more bushel of wheat is twice the utility to be gained from one more bushel of corn, and the cost of producing one more bushel of wheat is twice that of producing one more bushel of corn. This is not to say, as Samuelson makes clear, that a bushel of wheat is twice as useful as a bushel of corn in any absolute sense, but that one more bushel of wheat, given the existing supply, is worth twice as much as one more bushel of corn. In other words, the relative utility of wheat and corn depend on the amounts of each existing in society at a given time.

The concepts of marginal costs and marginal utility are essential to the argument that perfect competition maximizes social welfare. Welfare economist Abba Lerner presents the essence of the argument as follows:

If every manager adjusts his output so as to make the value of the marginal product of each factor equal to its price and the price of each factor is the same for every manager of production, so that the different marginal products of each factor have equal values, the social marginal opportunity cost of any product will be measured by its price. A dollar's worth of any product will be just that amount by which output would be reduced if a dollar's worth
of the factor were withdrawn from its production. This dollar's worth of factor, wherever it is applied, can increase production by just $1's worth of product. Consequently, the sacrifice of $1's worth of any product will permit the production of exactly $1's worth of any alternative product. If at the same time no individual buyer has any influence on price, his private marginal opportunity cost is also measured by the price. What our little Rule does is to equate the social and the private marginal opportunity costs so that every individual, in trying to minimize his own sacrifice of alternatives when he spends his money to his own best advantage, is led automatically and even unconsciously to minimize the social sacrifice in producing what gives him the most satisfaction. This is the essential social utility of the price mechanism.18

The argument in brief is this: Consumers, each spending his money so as to maximize private utility, cause prices to reflect marginal utility. Perfectly competitive industries produce to the point that the marginal cost of an item is exactly equal to its price. In so doing they pay the owners of factors of production exactly the marginal cost of the factor, the cost to the owner of the factor reflecting the private marginal disutility of parting with his factor.

Now at first blush it might seem that the total outcome of this process, total utility minus total disutility, is zero, an unlikely utilitarian maximal situation. But this conclusion follows from a confusion of marginal utility and total utility. The price a consumer pays for a commodity in a perfectly competitive economy reflects the utility to him of the last unit of his purchase. But (so the theory goes) the earlier units gave him even more pleasure than the last, due to the diminishing satisfaction which accompanies increased consumption of a particular item. Hence the consumer
always "receives more than he pays for." The total utility to the consumer is always greater than the product of the number of units purchased and the marginal utility of the last unit. The consumer always receives a surplus.

Similarly, the total **disutility** to the supplier of a productive factor—a laborer, say—is always **less** than the disutility reflected in the total income he receives for his services. The wage rate reflects the disutility to him of the **last hour's work**; this is, presumably, greater than the disutility of earlier hours (when he was less fatigued). Since he is paid the same for all hours, he gets well paid for hours that he might have been willing to work for much less. If this analysis lacks realism in the case of the individual worker, it is perhaps more plausible when applied to an entire industry. The wage rate in the industry, so the argument proceeds, is that sufficient to attract the least willing worker into that industry. Thus, most workers are paid more than their freely established disutility would require.19

**Distribution of Income**

It seems clear that if the assumptions underlying this story are correct, we are, if not in, at least very near, paradise. Everyone receives more than he pays for when he buys; everyone receives more than he gives up when he sells. Total utility exceeds total disutility for every individual
in society, and consequently for society as a whole. One might quibble that such an excess might be obtainable more effectively under another system, or one might object that conditions of perfect competition do not obtain in the real world. Be that as it may, perfectly competitive capitalism appears to be a strong candidate for the optimal society.

There are several assumptions underlying our account of perfect competition which require examination. Basically, the argument consists of two movements, the first having three parts: (1) marginal utility is measured by prices (because of consumer sovereignty), (2) price = marginal cost (because of perfect competition), and (3) marginal cost measures marginal disutility (because of private property and freedom of occupation). These three parts together establish that the marginal utility of consuming a product is equal to the marginal disutility of producing it. The second movement claims that (a) marginal utility is a decreasing function of the number of units of product already consumed, and (b) marginal disutility is an increasing function of the number of units of the productive factor already supplied. These two propositions, together with the result of the first movement, entail a surplus of utility over disutility.

This second movement can be illustrated graphically (Figure B) if we assume one consumer good, say wheat, and one productive factor, say labor. To produce one bushel of wheat requires relatively little labor, while the utility of
that bushel is high. One must expend more labor to produce more wheat, the disutility of the extra labor increasing while the utility of the extra wheat declines. Equilibrium is reached when the marginal utility of one more bushel is exactly equal to the disutility of producing that bushel. At this point the total utility is measured by OPQB while total disutility by OPQA, resulting in a "utility surplus" of AQB.  

\[
\text{(dis) utility}
\]

\[
\text{utility of consuming the x'th bushel of wheat}
\]

\[
\text{disutility of producing the x'th bushel of wheat}
\]

wheat (bushels)

Figure B

The argument depicted graphically is quite plausible if we assume that the same person who produces consumes the product of his labor, but the crux of the matter is whether this analysis is applicable to capitalism. To decide this we must return to the first movement, and the crucial claim that marginal utility = marginal disutility. If the same individual is evaluating both, then their equality is plausible, but how does this equality come about in the more complex case?

We will not concern ourselves with the second part of the first movement, the claim that perfect competition
effects the equation of price and marginal cost. Insofar as we are talking here of dollars, of monetary units on both sides of the equation, we will assume this to be correct. Our concern will be with (1) and (3), the equations of price with utility.

The obvious question which comes to mind in evaluating the claim that relative prices reflect relative utilities is the question, utility for whom? If corn sells for $1 a bushel and wheat for $2, whose happiness would be increased twice as much by the production of another bushel of corn? The neoclassical answer: everyone's—everyone at least, who has some of each.

The best allocation of the different kinds of goods among different consumers is reached only if the marginal substitutability of every good A for every good B is not less for every consumer who has some of A than it is for any consumer who has some of B. This is automatically reached by free exchange, but is upset if there is any monopolistic exploitation.

In our example, everyone who has any wheat values an additional bushel of wheat twice as highly as a bushel of corn, and anyone who has corn evaluates it as worth at least a half a bushel of wheat. Why? If the wheat owner thought the wheat to be worth less, he could trade a bushel of his wheat for two of corn and make himself happier. Or, what comes to the same thing (so the story goes), he would have bought the corn in the first place instead of the wheat. Similarly, for the corn owner. Everyone who has some of each, it follows, evaluates the utility of an additional bushel of
wheat to be exactly twice the utility of another bushel of corn.

We will not consider here the adequacy of this account as a theory of prices, though there do seem to be difficulties. We are interested here in the question of distributive justice, and hence we will focus on other aspects of the theory.

First of all, we notice that according to perfect competition theory prices reflect the relative utilities of commodities to those who have some of each, enough of each, moreover, that they might trade. If a person does not have enough hamburger to trade for a Cadillac, his subjective evaluation of relative utilities of the two commodities does not register on the market. This point is significant because it raises a difficulty with the market mechanism, not simply as a distributor of finished consumer goods, but as an allocator of basic resources. Economists traditionally distinguish the question of resource allocation from that of income distribution: the question "what is to be produced?" from "for whom?" But insofar as decisions about what is to be produced are made in terms of market prices, and market prices reflect relative utilities to those who have some of each, the market mechanism does not automatically assure that those commodities are produced which have the greatest marginal utility to the "least advantaged" member of society, or to the "average" member, but to those who
can afford to choose among the commodities in question. If, for example, hamburger sells for 50¢ a pound and a Cadillac for $8000, and if the cost of producing another Cadillac should drop below $1/16,000 the cost of producing another pound of hamburger, then the market mechanism under perfect competition would set laborers and machinery into motion on natural resources to turn out another Cadillac, hungry people notwithstanding. People vote with their dollars, as it were, the more dollars, the more votes. No dollars, no votes.

There is a second problem, quite distinct from the question of resource allocation, in correlating perfect competition to a utilitarian conception of distributive justice. Suppose, for example, that everyone in society has some of each consumer good produced, so that relative prices reflect the relative marginal utility judgments of everyone. Does it follow that we have a case of utilitarian optimality?

When we notice that the marginal utility concept does not involve interpersonal comparisons, we see that there is no reason to think so. If wheat is twice as expensive as corn, and everyone as some of each, we conclude that a bushel of wheat is judged by everyone to have twice the marginal utility of a bushel of corn. We cannot say, however, that A's last bushel of wheat gave A as much pleasure as B's last bushel gave B. A may have 1000 bushels of wheat in his storehouse and B only one. A may be satiated, and B quite hungry. It may well be the case, in short, that the pleasure
to B afforded by one of A's bushels would far outweigh the pain of A's parting with it. These considerations have no bearing on the claim that A and B each value a bushel of wheat twice as highly as a bushel of corn, and yet this latter claim is all that can be proved in a perfectly competitive society where everyone has some of everything. That A and B each value the relative marginal utility of wheat and corn to be the same seems to be a necessary condition for utilitarian optimality—for otherwise, either could trade so as to increase his pleasure without detracting from anyone else's—but it is by no means sufficient. A utilitarian defense of capitalist distribution must show that the market distributes so that the total welfare cannot be increased significantly by shifting some of A's consumption potential to B, and not simply that any such shift would make someone worse off. More than Pareto-optimality is required.

We should not conclude too hastily, however, that our analysis has demonstrated utilitarian non-optimality, for we have considered only one face of a two-sided coin. Consumption yields pleasure, but in order that there be anything to consume, there must be production, and production often involves pain. Utilitarian optimality involves maximizing pleasure but also minimizing pain. If it were the case that goods and services were all effortlessly produced, then a good case can be made for egalitarian distribution. But
goods and services are not effortlessly produced, not in this or in any existing society. Production involves sacrifice, and so one cannot immediately conclude utilitarian (or Rawlsian) non-optimality from distributive inequality.

Two situations must be distinguished here, the short-term situation and the long-term. That production involves sacrifice is not directly relevant to the short-term utilitarian evaluation of distribution. If A produced 100 bushels of wheat at considerable sacrifice, while B, who lolled on the beach all summer, produced none, and if B, who is now hungry, would get more pleasure from one of A's bushels than A would from his last one, then, all else equal, utilitarian optimality would require A's giving one bushel of wheat to B. The pain of production is past and cannot be diminished by present distribution, whereas pleasure can be increased by redistribution.

The only countervailing consideration in the short-term case (the only factor which would prevent "all else" from being "equal"), is the pain A would feel in parting with something he feels is his. Only if this pain exceeds in intensity the pleasure of B's consumption would redistribution not be in order.

Now, clearly, a serious utilitarian evaluation of capitalist distribution must concern itself not with the short-term case but with the long-term one; i.e., with institutionalized practice. We must concern ourselves with the
effect on future production of redistributing at the end of each productive period. Account must be taken, that is, of "production pain."

"Production-pain" is the pain experienced by a human being in actively engaging in productive activity. It consists of an expenditure of energy, sweat, mental and physical tension, and the like. In evaluating alternative distributive schemes, the utilitarian must consider this sort of pain (which alternative minimizes it), and consider the consequences (relative to maximizing long-term well-being) of compensating or not compensating those who undergo more "production-pain" than others with material goods.

"Entitlement-pain" on the other hand, need not be considered by a utilitarian in evaluating competing systems. "Entitlement-pain" is the pain one feels at being denied what one takes to be rightfully one's own. One may feel entitled to a particular share of the social product because one has undergone production-pain in its creation, or because it is the result of one's talent, or because one was bequeathed a certain share, or because one contributed some privately-owned means of production, or because a share was produced by one's serf or slave. But what one regards as "rightfully" one's own is surely determined by the customs, mores, and laws of one's society. One does feel "deprived" of one's inheritance in a society that does not recognize the right of inheritance, nor "deprived" of one's rightful
rent if private ownership of land is not acknowledged.\textsuperscript{29} Since the fundamental question under consideration is which type of society, with what sorts of laws and customs, yields optimal happiness, one need not, indeed one should not, take entitlement-pain into consideration.

A key issue, then, for the utilitarian is that of production-pain and necessary incentives. Does capitalism provide the correct incentives—those which minimize production-pain and maximize consumption-pleasure?\textsuperscript{30} Are the competitive structures conducive to the situation in which, in Lerner's words, "every individual in trying to minimize his own sacrifice of alternatives . . . is led automatically and even unconsciously to minimize the social sacrifice in producing what gives him most satisfaction?"\textsuperscript{31}

We must distinguish several sorts of incentives. Insofar as we are dealing here with the static case we are not concerned with incentives to technological innovation. We are concerned with incentives to "efficiently utilize" a given technology and a given set of human and natural resources. Let us focus on those related to the utilization of human resources.

Perfectly competitive capitalism, as we know, sets the wage rate according to the marginal product of labor in particular fields. The rate reflects the "contribution" of the laborer.\textsuperscript{32} But it is also said to reflect the "social sacrifice" of the laborer. How exactly is this to be under-

stood? What argument links the marginal product of the laborer with the marginal disutility of his work?

The essential link is provided by the freedom of workers under capitalism to choose, subject only to constraints of ability and demand, the type and quantity of work in which they wish to engage. The wage offered will reflect the capitalists' evaluation of the worker's potential contribution, while the wage accepted will reflect the worker's choice, from among the alternatives available, that which represents the least sacrifice on his part. Since each worker will seek the highest wage (and hence the highest contribution) at the last cost to himself, it follows, then, that equilibrium will be reached when the greatest possible contribution is extracted from the laborer with the least amount of sacrifice.

Or does it? Let us consider this matter more closely. The issue of unequal talents being rewarded unequally is troublesome, so let us side-step it temporarily and consider a simple situation, one in which all members of the labor force are exactly equal in natural ability, and all have equal access to general education, special training, and so forth. Let us suppose further that all workers have roughly the same tastes, and that all have decided to work the same number of hours per day.

In this situation perfectly competitive equilibrium requires, clearly, that differing wage rates accurately
reflect the varying degrees of production-pain in differing occupations. If the differential is too low, then workers will leave the more noxious jobs, decreasing the output of that industry. This decline in output will trigger a price rise (assuming demand constant), and hence the employer, in trying to equate his marginal cost to the price (the condition of maximal profits), will raise wages. Conversely, if the differential is too high, workers will move into the area, production will increase, prices will fall, and with them so will wages.

Now, a good case would seem to be present here for the utilitarian optimality of the market mechanism. If people do not receive in full the income dictated by the market, if some other distribution is attempted, then fewer workers will work at the more noxious jobs, creating a shortage of output in that sector. The demand for the output is there, and people are willing to supply that demand. The demand is generated, to be sure, in accordance with the "dollar votes" of the differentiated income, but insofar as these differentials are compensations for variations in production-pain, this would not seem to conflict with utilitarian optimality.

We can drop at least one of our restrictions without upsetting the above argument. We need not assume that all work the same number of hours. If a worker chooses to work longer hours because he values material goods more highly vis-à-vis leisure than do his co-workers, or fewer hours for
the opposite reason, it would not seem to upset utilitarian optimality to have his payment set according to the hours worked, at a wage rate reflecting the disutility of the particular occupation. Those who worked fewer hours would have fewer "votes" in determining the quality and quantity of production output, but they are precisely the people less concerned about product consumption anyway.

The model just set out has significant *prima facie* plausibility, I believe, as a utilitarian-optimal state, and is appealed to in most utilitarian defenses of capitalism. There are, however, several problems which we must consider.

First of all, if the general model is to serve as a justification of capitalism, the "equal ability" assumption must be dropped, and the troublesome question of rewarding unequal talents confronted. Under perfectly competitive capitalism the wage one is offered for a particular job is determined by the marginal contribution one can make. Thus, presumably, the more talented person will be offered a higher wage than his less talented though equally industrious colleagues. Is this optimal in a utilitarian sense?

Considerations may be brought to bear on both sides of this question. If we assume that in general the last dollar spent by a person with low income gives more satisfaction than a dollar spent by one with high income,\(^{35}\) then, assuming the two jobs under consideration involve equal production-pain, optimality would seem to require redistribution. On
the other hand, we notice that it is in the best interests of society to have those with special talents where these talents can be used to do the most good. If wage offers do not reflect estimated contributions, how will we know which occupations are the most useful, and how will we entice those with various talents into the appropriate occupations?

These two questions must be treated separately. If it is true that managers of productive enterprises can assess the marginal physical productivity of prospective workers (as they are presumed to be able to do in neoclassical theory), then a socialist society is as well situated as a capitalist one to determine the utility hierarchy of various occupations. Managers determine the marginal physical product of each occupation-category and then evaluate them in monetary terms via the given price structure. Determining marginal physical products does not depend on whether or not the worker receives the value of his product.

Whether or not the resulting hierarchy reflects the actual marginal social utility of occupations depends on whether or not the price structure of consumer goods and services reflect marginal social utility—whether or not, that is, prices reflect the social utility of one more item of each good. If the socialist price system (which may or may not rely on the market mechanism) is at least as reflective of social utility as a capitalist one, the determination
of occupation utility by the former can at least be as accurate as the latter.36

How to entice workers with special talents into the proper occupations is another matter. The capitalist solution is to offer differential wages. Whether this is the most effective method depends on a number of empirical considerations—the pleasure individuals take in exercising special talents, the viability of non-material incentives: prestige, a sense of "serving the people," etc. For our purposes, it is sufficient to note that this question is not central to the debate between capitalism and socialism, for socialists might also opt for "payment according to productivity." Marx himself argued that during the socialist transition to "full communism," distribution would be in accordance with labor, where "quantity of labor" takes into account duration, intensity and productivity: "[This standard] recognizes no class differences, because everyone is only a worker like everyone else, but it tacitly recognizes unequal individual endowment and thus productive capacity as natural privileges. It is therefore a right of inequality in its content, like every right."37

The criticism of the manner in which capitalism rewards ability hinges, therefore, on a number of empirical assumptions, as does its defense. A necessary (though by no means sufficient) condition for the utilitarian-optimality of the capitalist procedure is the supposition that rewarding
ability materially is the optimal method of assuring that talent is appropriately exercised. This is a deep and important issue, especially for socialists, but we need not dwell on it here for there is a deeper problem with the neoclassical model which we must consider. We merely note in passing that conventional economic analysis provides us with little theory or data on the question. As Scitovsky observes:

To find the best compromise between maximizing the national income and equalizing its distribution seems like a typical problem of economic analysis. Unfortunately, we lack the information to resolve it, knowing next to nothing about the effectiveness of individual income as a spur to the individual's economic activity, and nothing about the cost of a marginal addition to the national income in terms of the increased inequality this would require.

The deeper issues emerge when we realize that our "best case" model is more problematic than it at first appeared. Let us reinstate our assumption that all workers in society have equal ability, and freely compete for jobs offered them by competing capitalists. Wages thus reflect, as we have noted, the relative discomfort of the available work. Now, to what extent will competitive pressures bring the personal cost of a worker's sacrifice into line with society's gain?

At first blush, the optimality argument seems straightforward. The worker, free to seek his employment wherever he will, maximizes his overall gain (or minimizes his loss) in balancing the pleasures of spending his wage against the pain of earning it. The wage he receives, however, measures his contribution. He gets out exactly what he puts in.
Since his wage is therefore as high as possible, and the cost to himself in securing it minimum, surely society has achieved an overall optimization of utility.

The problem here is that the argument has left out the capitalists, an oversight to which marginal-product theory makes one particularly prone. It is true, given a perfectly competitive society, that the value a worker receives is precisely the value he contributes, in the sense that if he were not employed, the Gross National Product would decline by exactly the amount of his wage. It does not follow, however, that he (and the rest of his fellow workers) receive as much as is possible for their labor. For, though it is true that the GNP will decline by precisely the amount of one worker's wage should he cease to labor, it would not decline by the amount of two workers' wages, should they both cease to work. It would decline by more than that. And if all the workers ceased to work, it would decline to zero, far more than the total income of the workforce.

The theoretical basis for this result is the assumption of declining marginal productivity of labor upon which neoclassical theory is based, and the principle that the wages are set for everyone in accordance with the marginal product of the n'th person in a homogeneous labor force of n people. The macroscopic manifestation is that the capitalists also get a slice of the gross national pie.40

The inclusion of a class of capitalists into our model
complicates matters, for the optimality argument seemed to suggest that the only income in society was for labor. The argument for inequality contended that redistribution of income would cause people to avoid the more distasteful occupations, to the detriment of society, and that it seemed unobjectionable on utilitarian grounds to allow some people more "votes" in determining demand for goods and services, since those people had worked longer hours or at less pleasant jobs because they were more interested in consumption than were their coworkers.

However, these considerations do not apply to property income. Property ownership in a static economy (the one we are considering now) is not a productive activity. Hence society would not necessarily suffer if those receiving property income "ceased doing what they are doing now." Individual capitalists might experience "entitlement-pain," if their "earnings" were expropriated, but their activity--granting permission--involves no production-pain, and hence need not, it would seem, be considered in determining the utilitarian optimality of the institution of private property. Utilitarian considerations might require wage differentials to provide for an "efficient" economic organization, and such differentials might be best determined by a competitive market for labor, but the arguments which support these claims have no bearing on whether private ownership of the means of production is conducive to utilitarian-optimality.
Perhaps we have proceeded too quickly—for capitalists do perform a service, even in a static capitalist economy. By granting access to means of production to the highest bidder (we have in mind the neoclassical model where entrepreneurs borrow capital at interest from the owners), capitalists assure that scarce capital goods will be efficiently used. Why, it might be reasonably asked, should they not be rewarded for this service?

But this service is of a peculiar sort. When deciding, on utilitarian grounds, how to distribute the social product, two kinds of considerations are normally advanced—need (the poor will receive more pleasure from a dollar than the rich) and incentive (people must be enticed to produce optimally). Since need is not the justification of the capitalist's reward, it must be incentive. Now, incentives serve either to compensate for production-pain, or to call forth the optimal exercise of useful talent. But the service provided by capitalists in this model involves neither production-pain nor talent.41

If allowing private ownership of the means of production were the only mechanism for achieving economic rationality, then of course, the case for capitalism would be impregnable. But (as we noted in our discussion of the claim that socialism is impossible), economic rationality does not logically require private ownership of producer goods. If there is a practical alternative which would not raise
aggregate production-pain, affect aggregate output, or bear any other long-range disutility, and which does not require that a class of people be rewarded for activity involving neither production-pain nor rare talent, it will be preferable on utilitarian grounds.

The peculiarity of capitalist distribution is that it ties the "reward" of an owner of means of production to the quantity of things owned, and not in any direct way to service performed. Indeed, the institution of private property allows for the accumulation of means of production far in excess of what an individual can "manage" in any direct, technical sense, and of wealth far in excess of possible immediate consumption. Insofar as such wealth is consumed unproductively, there is no reason to assume that it is consumed by those who could most benefit from it, nor any reason to believe that society would suffer if it were consumed by someone other than the capitalist. Now, one might object in defense of capitalism that there is no realistic alternative. Whether such a defense is valid will be studied in the next chapter.

Unemployment

I believe we have established the existence of a prima facie case against private ownership of the means of production, even under conditions of perfect competition, since a society so organized allows substantial inequalities of
wealth which have no reference to need, production-pain, or
talent. Before turning to the possibility of realistic al-
ternatives, or considering other pro-capitalist arguments,
let us examine a second utilitarian objection to the laissez-
faire perfect competition model.

A fundamental (though tacit) assumption of the neoclas-
sical argument is that under conditions of perfect competi-
tion, there can be no involuntary unemployment. It is
assumed that in the absence of coercion or monopolistic col-
laboration (minimum wage laws, labor unions, etc.) workers
will find employment, provided they are willing to accept a
low enough wage. The neoclassical economist does not deny
that there is "involuntary" unemployment due to physical or
mental defectiveness and "frictional" unemployment due to
changing technology and changing demands, but neoclassical
theory assumes that large scale unemployment of able-bodied
people desirous of work is impossible in a perfectly competi-
tive economy in a state of equilibrium.

As is well known, John Maynard Keynes' The General The-
ory of Employment, Interest and Money is an extensive and
scathing attack on precisely this assumption. Keynes argues
that the assumption that there is no such thing as involun-
tary unemployment is logically equivalent to the assumption
that the real wage is equal to the marginal disutility of
the existing employment, "that is to say, the real wage of
an employed person is that which is just sufficient (in the
estimation of the employed persons themselves) to induce the volume of labor actually employed to be forthcoming . . . " and that this latter assumption is false. 46

We will not follow Keynes' formulation of the argument here since it is situated in a dynamic setting and couched in terminology that need not concern us. We will regard the question instead in a static setting, and adapt his reasoning accordingly. At issue, then, is whether an absence of involuntary unemployment can be inferred from the postulates of perfect competition in the static case we are considering, and if not, why not?

The neoclassical argument for full employment is easy to reconstruct (though, as Keynes points out, it is rarely given explicitly). 47 Suppose an equilibrium economy suddenly found itself with unemployed workers (due perhaps to immigration, a declining death rate, or a sudden technological change). These workers, competing freely with the rest of the workforce, effect a decline in the wage rate, bringing down the marginal costs of the capitalists. Since, according to neoclassical theory, capitalists adjust production to bring the marginal costs of their products (over which they have control due to their control of the quantity of input) into equality with their respective prices (over which they have no control), capitalists will expand production, and this expansion will provide the requisite jobs for the "temporarily" unemployed.
The argument rests on two implicit assumptions: one, that the capitalists can and will expand production to bring marginal costs into line with given prices; two, that this can and will be done quickly enough that price levels are not affected. The first assumption is essentially the assumption (necessary for the application of Euler's theorem) that production functions are smooth, that output can be continuously varied by varying any of the input factors while holding the others constant.

In the short run this assumption is surely false. When unemployed workers compete with employed ones, offering their services at lower wages, it seems evident that the first reaction of a capitalist is to replace a more expensive worker with a cheaper one. The neoclassical model pictures the equilibrium process as occurring instantaneously—the (m+1)st worker will have a lower marginal product than the m'th, and so all workers ([m+1] now instead of m) will accept the wage of the (m+1)st. Now competition will no doubt bring down the wage rate, but the effect takes time.

It also takes time to expand production. Even if the m workers in an industry were willing to accept a lower wage, it is not always the case that the productive facility is prepared to handle m+1 workers. In concrete cases one needs to provide the extra worker with tools, with raw materials, and with space to work. If there is not enough capital available to employ the (m+1)st worker, then, though the
m workers already employed may well be compelled to take a cut in pay, total employment need not increase.

To put this observation technically: in the short run the marginal product of labor might well drop to zero—providing no incentive to the capitalist to hire the unemployed. If this condition persists, if capital cannot be increased, then one finds oneself in a stable situation with positive unemployment. If, for example, in a one-commodity world of laborers and landowners, the point is reached where adding one more laborer will not increase the output of corn, then he will not be hired. Since he is "free" in the double sense emphasized by Marx ("free from" means of production as well as "free to" seek employment wherever he chooses), he will either starve or have to be provided for by a redistribution of market income.

The neoclassical response is to observe that capital is not fixed. If wages decline, new enterprises, unprofitable at the higher wage rate, will become feasible, and so production will in the long run expand.

The problem here is the time lag. A decline in wages drops the marginal cost of production, which theoretically results in an expansion of production to bring marginal costs into line with given prices. But prices given when? In the short run one can assume that prices are unaffected by changes in wages, but this is clearly not the case in the long run. If wages decline, then demand declines (since the
wages of workers constitute a key element of demand), and if demand declines, prices fall (in a competitive economy). But if prices fall, the capitalist need not expand production to bring his reduced marginal costs into line with prices, and so a new equilibrium may be reached which does not involve full employment.49

The time-lag problem opens up the possibility of a downward spiralling depression, a familiar concept in Marxian economics50 but one quite foreign to neoclassical theorists, who, according to Keynes, "resemble Euclidean geometers in a non-Euclidean world who, discovering that in experience, straight lines apparently parallel often meet, rebuke the lines for not keeping straight—as the only remedy for the unfortunate collisions that are occurring."51

The Keynesian critique of neoclassical analysis destroys, I believe, any hope for a proof of the utilitarian optimality of perfectly competitive capitalism unless there are added strong empirical assumptions about factors exogenous to the model itself. It must be assumed that conditions which trigger a depressionary spiral will not occur, or that if they do, suitable government intervention will be forthcoming. These assumptions will be examined in later chapters. For now it is sufficient to note that if perfect competition results in an equilibrium state with significant involuntary unemployment, then it is not even Pareto-optimal, let alone utilitarian optimal. A system in equilibrium
with unemployed people confronting idle factories is not an optimally efficient system in either sense of the word (unless, of course, all possible remedies yield greater evil).

**Optimal Consumption and the Sales Effort**

The full-employment assumption is necessary to prove Pareto-optimality. So, in fact, is another assumption which is likewise problematic—the consumer sovereignty assumption. This condition, formulated within a utilitarian context, asserts that individuals make marketplace purchases in such a way as to maximize, within their income constraints, their individual happiness.

It is obvious that such a condition does not strictly obtain in any real market system. Using the minimal criteria of physical health or an individual's retrospective self-evaluation, we find clear counter-examples: self-destructive alcohol or drug addiction, purchases made in ignorance or on soon-regretted impulse. But it seems equally obvious that one cannot insist on strict satisfaction of the consumer-sovereignty condition in judging the Pareto-optimality of an economic system. A serious criticism of the Pareto-optimality claim must advance reasons for thinking that the failure of the condition is frequent, and significantly connected with basic features of the economic organization.

There is considerable Marxist literature attacking the
consumer-sovereignty assumption; we will not attempt to do justice to it here. Galbraith also rejects this assumption, charging (in his Presidential Address to the 85th Meeting of the American Economics Association) that it prevents one from asking a "remarkably obvious question: Why does the modern consumer increasingly tend toward insanity, increasingly insist on self-abuse?"

The conventional response to this charge is to raise the spectre of repression. MIT's Robert Solow erupts at Galbraith: "The attack on consumer-sovereignty performs the same function as the doctrine of 'repressive tolerance.' If people do not want what I see so clearly they should want, it can only be because they don't know what they 'really' want." Friedman writes in a similar vein: "Indeed, a major source of objection to a free economy is precisely that it does its task so well. It gives people what they want, instead of what a particular group thinks they ought to want."

However, the common inference that a disbelief in consumer sovereignty implies a belief in elitism or dictatorship is invalid (at least within a utilitarian context), resulting, it seems, from an ambiguous usage of "consumer sovereignty." The consumer'sovereignty assumption is the empirical claim that people's purchases do tend to maximize their happiness; it is not the normative claim that people ought to decide for themselves what is good for them. One can deny that the consumer-sovereignty condition obtains in
a particular market system, and consistently maintain any one of the following normative positions, none of which conflicts with the ethical dictum that people ought to decide for themselves what is good for them: (1) the system ought to be maintained anyway because of other overriding ethical considerations, (2) the system can and should be modified to achieve the consumer-sovereignty condition, or (3) the market system should be replaced by some other democratic decision procedure. In short, one can deny consumer-sovereignty without advocating intolerance.

But are there reasons for denying that consumer sovereignty obtains in capitalist society? Are there forces operating in capitalism which tend to influence purchases in such a way as to cause the purchasers to deviate from maximizing their well-being? We will avoid the more complex issue of alienation, status competition, and so on (features not unique to capitalism, though perhaps endemic to it), and consider the more obvious ones.

If we admit that competitive capitalism provides economic incentives for innovation, efficient management, and close attention to consumer demand, we must also allow that it provides an incentive for stimulating demand. This feature, so characteristic of modern capitalism, is rather peculiar, absent in many other modes of production. In primitive or feudal economies, for example, there was no incentive to entice people to consume. Neither the serf nor
the lord had any clear economic interest in convincing people to consume more. Nor, it would seem, would a production manager in a command economy where production quotas are set by an independent agency. In a market economy, however, where financial reward is tied to sales, there exists an inherent tendency toward "salesmanship."

The strength of this tendency would seem to vary considerably with particular circumstances. In the early stages of capitalist development when the emerging capitalist farmers and manufacturers engaged in successful price competition with small farmers and craftsmen in supplying basic commodities, perhaps there was little need to stimulate demand. The market was there to be captured by the capitalists offering goods and services at lower prices. But as traditional markets became saturated, and capitalist production transformed the peasant and the artisan classes into wage-laborers, the incentives to develop new markets, new products and new sales techniques intensified. The result—modern capitalism—is described by Galbraith as follows:

The control or management of demand is, in fact, a vast and rapidly growing industry in itself. It embraces a huge network of communications, a great array of merchandising and selling organizations, nearly the entire advertising industry, numerous ancillary research, training and other related services and much more. In everyday parlance this great machine, and the demanding and varied talents that it employs, are said to be engaged in selling goods. In less ambiguous language it means that it employed in the management of those who buy goods.
There is considerable controversy (but little empirical research) as to the effect of this "great machine" on the national economy. Solow takes the conventional line against Galbraith and others who see the rise of advertising as particularly significant.

No one who believes, as I do, that profit is an important business motive could argue that advertising has no influence on the willingness of consumers to buy a given product at a given price. After all, how could I then account for the fact that profit-seeking corporations regularly spend billions of dollars on advertising?

But I should think that a case could be made that much advertising seems only to cancel other advertising, and is therefore merely wasteful. I should think it obvious that this almost has to be true—for otherwise there would be nothing to stop the cigarette industry and the detergent industry from expanding their sales to their hearts' desire and the limit of the consumer's capacity to carry debt....

It is open to legitimate doubt that advertising has a detectable effect at all on the sum of consumer spending, or, in other words, on the choice between spending and saving.

We will not take a stand on this controversy here; we merely note how the outcome is relevant to the issue of Pareto-optimality. In passing we point out that Solow's argument, that the effect of advertising almost has to cancel itself out, is logically defective. To claim that advertising increases total consumption no more commits one to the claim that this consumption is limited only by one's capacity for debt than the claim that fertilizer grows larger petunias entails that they can be grown larger than sunflowers. That advertising does not yield total control hardly implies that it has no quantitative effect.
Actually the question Solow focuses on in the end—whether advertising affects the choice between saving and spending—is not the one relevant to our concern. What we want to know is whether the sales effort has any effect on consumption patterns, and if so, whether it is conducive to conforming people's actual purchases to their maximum well-being. Even if it could be shown that the sales effort causes people to spend more and save less than they would otherwise, this empirical result would not in itself undercut the Pareto-optimality of the system. It would have to be demonstrated that people are worse off having spent rather than saved. Similarly, a proof that advertising has no effect on aggregate demand would neither indict the system of Pareto-non-optimality nor vindicate it of the charge. If it has the effect of changing qualitative patterns of consumption, the relevant question is whether these changes tend to make people better or worse off. That they spend the same portion of their income with or without advertising does not show that they spend it as well in the presence of a sizable sales industry as they would in its absence.

Now, of course, if the sales industry has little or no effect on consumption patterns, whether quantitative or qualitative, then the system is wasteful—that is, not Pareto-optimal. The individuals and natural resources channelled into the industry produce nothing; the individuals consume but do not produce. If these were to be redirected into
productive labor, then some people could be made better off without making anyone worse off. 61

Let us assume then, as Galbraith and Solow both do, that advertising (and the sales effort in general) significantly affects consumption patterns. Are there any reasons for thinking that the sales effort is likely to bring people's actual purchases into better alignment with maximum well-being? Are there any "invisible hand" forces at work which would tend to produce such a result? What special assumptions, if any, are necessary for such an outcome to obtain? Let us consider these questions briefly.

First of all, we observe that an "invisible hand" explanation is necessary, since the direct, conscious intention of the owners of the means of production is not the maximization of consumer well-being. The direct conscious intention is to make things which will sell, and to sell things which have been produced. If we assume that the only things which will profitably sell are those which tend to maximize consumer well-being, then, of course, an "invisible hand" explanation presents itself immediately. Owners of means of production, attempting to produce the commodities which are most profitable to sell, are led to produce those things which maximize consumer well-being.

But is this assumption plausible? The twin phenomena of salesmanship and sales resistance suggest that consumers often perceive their own interests as distinct from those of
the producers, at least initially. On the other hand, a sale cannot be consummated unless the buyer is "convinced." If he can be convinced only by a demonstration that the purchase of the product in question is in his rational self-interest, then the assumption that the only things which will profitably sell are those which maximize consumer well-being is well grounded. In this case, the sales effort would consist in conveying to the potential consumer true and complete information concerning the advantages and disadvantages of the commodity so that he might make as rational a choice as possible.

It is obvious that the enormous sales apparatus of modern capitalism involves itself with other than rational persuasion: sloganeering, song-writing, "attractive" packaging, the deliberate association of commodity possession with personality traits which stand in no causal relation whatsoever to the commodity itself, are but a few examples. Either these non-rational persuasion techniques are effective, or they are not. If not, the owners of means of production must be accused of irrationality, and the system with Pareto-non-optimality. If they are effective, then we can assume Pareto-optimality only if these techniques persuade people to buy those commodities the possession of which really are in their own best interests. We assume that the sellers know what is good for the buyer, want to induce them to maximize their well-being, and can affect the buyers' decision
more efficiently by using non-rational rather than rational persuasion. But as we have seen, the producers have no direct, conscious interest in promoting the well-being of others in spite of themselves, so such an assumption of "capitalist paternalism" appears to be groundless. Unless one adopts an ad hoc "metaphysical" assumption that the only commodities people can be persuaded to buy, by rational or non-rational means, are those which do maximize their well-being, then one cannot assume that even a perfectly competitive capitalist economy will be Pareto-optimal.

This argument does not assume that the owners of means of production can create a demand for anything whatever and of whatever intensity they desire. It only demonstrates that there is no reason to suppose that non-rational sales techniques, if they are effective in generating any demand at all, will generate demand for products which tend to maximize consumer well-being. We do not argue that all such non-rationally generated demands are contrary to a consumer's real interest, but that there is no "invisible hand" process which conforms actual consumption patterns to maximal well-being. Hence, one cannot prove that even Pareto-optimality generally obtains in a competitive capitalist economy without introducing highly implausible empirical assumptions.

The use of non-rational sales techniques should not be regarded as an accidental feature of capitalism. If, as a
matter of empirical fact, sales techniques are effective, then it is in the rational self-interest of the capitalist to adopt such techniques. To forego them would involve denying oneself potential profits and subjecting oneself to the risk of serious loss should one's competitors adopt such techniques. One can scarcely assume collective self-denial on the part of capitalists when self-interest is posited as the motive force of the economic system.

Nor does it seem likely that non-rational sales techniques could be eliminated from a capitalist economy. Some of the more blatant ones might be controlled, but so long as one's income is tied quantitatively to the sale of one's commodities (the essential situation of owners of means of production), one will be inclined to try to persuade others that one's own product is superior to its rivals, whether it is in fact superior or not. To do otherwise would be to act contrary to one's clearly perceived economic interests.\(^62\)

But how serious is this problem? We can only speculate since the relevant technical data is not available. However, there are at least two reasons for thinking that the capitalist sales apparatus causes consumption patterns to deviate considerably from those which would maximize well-being. It is worthwhile to look at these for, as we shall see later, our alternate model also faces a "sales effort" problem. It will be necessary to carefully compare the reasons for the problem.
First, we observe that the owners of means of production are likely to be more rational in the pursuit of their goal—the selling of commodities—than the consumers are in theirs—purchasing so as to maximize well-being. This state of affairs is not due to the inherent rational superiority of capitalists, but to the nature of the economic system. A sales project is a consciously undertaken venture with clearly defined goals and fairly clear success-failure criteria. It is generally a cooperative endeavor which requires planning and coordination on the part of a significant number of people. It often involves considerable expense, and promises significant gains, thus making it imperative to evaluate alternatives carefully, and feasible to bring to bear on the problem a variety of (often expensive) expertise.

The consumer's project, on the other hand, exhibits sharply contrasting features. The goal—long-term welfare maximization—is far less precise than the goal of selling to maximize profit. It is rarely consciously aimed at in day to day purchasing, nor are successes and failures clearly discernible, particularly in the short run. Purchases also tend to be made piecemeal, not as part of an overall conscious plan, and do not ordinarily involve sufficient expense to warrant expert advice. The consumer is not helpless; after all, he must be persuaded to buy. But it seems that the sales effort pursues its goal with considerably more rationality than the average consumer his. Insofar as
rational selection of means correlates significantly with the attainment of a chosen end, one would expect the owners of means of production to be relatively successful in theirs.\textsuperscript{63} To the degree that these ends conflict with the goal of welfare maximization, we will expect, similarly, that the system deviates from Pareto-optimality.

Another reason to suspect that the sales machinery causes serious deviation from Pareto-optimality has to do with the labor-leisure tradeoff assumed by neoclassical theory. It is curious that the Galbraith-Solow controversy should be articulated in terms of the tradeoff between spending and saving. For the average consumer (though not for the capitalist)\textsuperscript{64} this is simply a choice between consuming now and consuming later. What has happened to the individual's fundamental choice between consumption and leisure?

That individuals have this choice is central to the neoclassical argument that the market mechanism produces Pareto optimality. Since a perfectly competitive economy gives to every member the value of what he (or the instrument he owns) produces,\textsuperscript{65} a person who prefers to work, say one-quarter less in return for consuming one-quarter less must be able to effect this substitution. The decline in total output brought about by his working two hours less exactly balances, in theory, the quantity of goods which can be purchased by him with two hours' wages. Hence, his working less will make him better off (in terms of his own
preferences) without making anyone else worse off.

Now it seems clear on reflection that workers in an advanced capitalist society are not free to determine for themselves their consumption-leisure ratios, at any rate, not in the sense that they are free to determine their consumption-savings ratio or the qualitative make-up of their consumption pattern. If I want to cut my consumption pattern by a quarter in order to save more, there are no institutional barriers to my doing so. I simply consume less and deposit the remainder in my savings account. If my taste for corn shifts to a taste for wheat, I go to the market and buy wheat instead of corn. But if I decide that I would like to work six hours a day instead of eight at my present job and consume a quarter less, I... what? Tell my employer, then come to work at ten the next morning instead of at eight? Quit my present job and get another one just like it that has six-hour shifts? Clearly these are not realistic possibilities for the vast majority of workers. There are some jobs, no doubt, at the interstices of industrial society where the worker is free to determine his labor-leisure ratio; but to assume, as one does in deriving the Pareto-optimality of competitive capitalism, that this is typical is certainly unrealistic.

A clarification of the logic of this argument is perhaps in order, since we seem to be appealing to an empirical fact about a non-perfectly-competitive system to question
the optimality of the perfect competition model. We are doing that, but some steps have been omitted. The appeal to contemporary reality establishes that the consumption-leisure option does not exist (substantially) under one form of capitalism. But the absence of such an option, as a moment's reflection makes clear, is not due to the system's not being perfectly competitive. To the contrary, the tradeoffs that are made—increased vacations, shorter work weeks, etc.—have been due, directly or indirectly, to collective bargaining. This suggests that the consumption-leisure option might be even less significant under perfect competition than it is under contemporary capitalism.

The above argument constitutes an argument against the Pareto-optimality of competitive capitalism which is independent of the consumer-sovereignty question. However, the result—that workers (the overwhelming majority of the population) do not have a significant consumption-leisure choice—does bear on the question. At issue is whether people consume so as to maximize their well-being. This includes both qualitative and quantitative considerations. If there is little to do with one's money but spend it immediately or later, if there is no realistic opportunity for converting savings into leisure, then there exists a situation conducive to maximal consumption, which is further exaggerated by a large and aggressive sales effort. The fact that workers spend their income does not prove non-optimality. But in
the absence of substantial opportunities to trade consumption for leisure, optimality cannot be assumed. If an alternative system exists which is structured so that it is much easier to effect such a trade, that system (in the absence of countervailing considerations) is preferable on utilitarian grounds to competitive capitalism.

**Capitalism and Work**

Our preceding analysis has elaborated three major difficulties with laissez-faire perfectly competitive capitalism: the unlikelihood of a utilitarian-optimal distribution of wealth (because of the lack of connection between market reward and production pain, particularly in the case of property income); the inability of the market mechanism to guarantee full employment; and the tendency of the capitalist sales effort to interfere with consumer sovereignty.

A fourth difficulty, perhaps more serious than any of the previous ones, requires our attention now: the so-called "dehumanization" of the worker. This is particularly relevant to the neoclassical marginal-utility model we have been considering, for the model suggests that dehumanization is impossible under perfectly competitive capitalism. The neoclassical Weltanschauung inclines one to think if working conditions at a particular firm are unpleasant and the work itself alienating, such is the case because workers have in some sense chosen it to be so.
Marx takes the opposite view. Dehumanization of the worker is seen to be a necessary feature of capitalism.

What distinguishes capitalism from simple commodity production is neither private property nor the market; it is the commodity-character of labor-power. Therein, Marx insists, lies the secret of capitalist production:

The sphere we are deserting [the market] within whose boundaries the sale and purchase of labor-power goes on, is in fact a very Eden of the innate rights of man. There alone rule Freedom, Equality, Property and Bentham. Freedom, because both buyer and seller of a commodity, say of labor-power, are constrained only by their own free will. . . . Equality, because each enters into relation with the other as simple owners of commodities, and they exchange equivalent for equivalent. Property, because each disposes only of what is his own. And Bentham, because each looks only to himself. . . . Each looks only to himself and no one troubles himself about the rest, and just because they do so, do they all, in accordance with the preestablished harmony of things, or under the auspices of an all-shrewd providence, work together for their mutual advantage, for the common weal and in the interest of all.

On leaving this sphere of simple circulation or of exchange of commodities, which furnishes the "Free Trade Vulgaris" with his views and ideas. . . . we think we can perceive a change in the physiognomy of our dramatis personae. He, who before was the money owner, now strides in front as the capitalist; the possessor of labor-power following as his laborer. The one with an air of importance, smiling, intent on business; the other, timid and holding back, like one who is bringing his own hide to the market and has nothing to expect but--a hiding. 67

Now we ask a number of questions. First of all, do workers indeed receive "a hiding"? There is substantial evidence that workers in contemporary America think they do. Numerous studies, academic and popular, indicate growing job-dissatisfaction. 68 Journalist Studs Terkel, having
travelled the country collecting interviews, reports that though "there are, of course, the happy few who find a savor in their daily job,"

for the many, there is a hardly concealed discontent. The blue-collar blues is no more bitterly sung than the white-collar moan. "I'm a machine," says the spot welder. "I'm caged," says the bank teller, and echoes the hotel clerk. "I'm a mule," says the steel-worker. "A monkey could do what I do," says the receptionist. "I'm less than a farm implement," says the migrant worker. "I'm an object," says the high-fashion model. Blue and white collar call upon the identical phrase: "I'm a robot." "There's nothing to talk about," the young accountant despairingly enunciates.69

The empirical question, how serious is job dissatisfaction, is not irrelevant to our overall project, since ultimately we must compare the strengths and weaknesses of alternative systems. But first we must ask: to what extent is job dissatisfaction tied to the capitalist nature of the economic system? It is this which will concern us in this section. (Establishing a link between capitalism and dehumanized labor does not imply that capitalism is the only form of production which can cause dehumanization. Clearly many others, including certain socialist ones, exhibit the same tendency.)

At first sight the causal link seems evident. The capitalist, according to his prerogative as owner of the means of production, determines the organization of the workplace. Therefore, if labor is dehumanizing, we can blame him for it. The usual retort to this is that appearances are misleading. The capitalist does not decide arbitrarily, but according to
behavioral rules that allow for worker influence. Robert Nozick provides a recent statement of this neoclassical argument. He says there are three cases to consider. Productivity under a reorganization scheme intended to make work more meaningful will either rise, remain the same, or fall:

If the productivity of the workers in a factory rises when the work tasks are segmented so as to be more meaningful, then the individual owners pursuing profits will so reorganize the productive process. If the productivity of the workers remains the same under such meaningful division of labor, then in the process of competing for laborers firms will alter their internal work organization.

So the only interesting case to consider is that in which dividing a firm's work tasks into meaningful segments, rotation of labor, and so forth is less efficient (as judged by market criteria) than the less meaningful division of labor. This lessened efficiency can be borne in three ways (or in combinations of them). First, the workers in the factories themselves might desire meaningful work. It has all the virtues its theorists ascribe to it, the workers realize this, and they are willing to give up something (some wages) in order to work at meaningfully segmented jobs. They work for lower wages, but they view their total work package (lower wages plus the satisfaction of meaningful work) as more desirable than the less meaningful work at higher wages. They make a tradeoff of some increase in the meaningfulness of their work, increased self-esteem and so forth. . . .

Nozick's contention appears to be this. If a reorganization which makes work more meaningful is at least as productive as the original organization, then a capitalist, pursuing his own interests, will so reorganize. If it is less productive, a capitalist will still permit the reorganization if the workers will accept a wage reduction sufficient to maintain his original level of profits. Hence, if
work could be meaningful but is not, it must be because workers are unwilling to bear the costs of making it so. We note in passing that Nozick assumes that the capitalist is entitled to the level of profits determined by free competition. As we have seen, this assumption is difficult to justify on utilitarian grounds.

A problem more specific to the argument at hand grows out of an ambiguity in the concept, "choice of total work packages." We must distinguish two senses. One, a choice of occupation, is available to workers under capitalism; but this is not the sense directly relevant to the issue at hand. We are concerned with alternative organizations of a given productive endeavor which differ in degrees of "dehumanization" and material compensation, and with workers' choices among these "total work packages." The choice of occupation is relevant only to the degree that it affects the actual selection of one productive process from among the technically feasible alternatives.

To assess its relevance, let us consider how work-place organization comes about. We have two cases: (1) the owners of an ongoing concern (or their representatives) reorganize their firm; (2) owners of surplus capital set people into motion constructing a new facility. The two situations are different because in the first case the owners have an existing workforce at their disposal, while in the second they must attract one.
Presumably there are cases on record where owners of an existing concern have approached their workforce with a proposition such as this: "We are thinking of reorganizing. This will make the work more tedious, but we will pay you more. Let us take a vote." But such a case is surely not paradigmatic. If it were, the history of labor resistance to reorganization would be incomprehensible. Surely other approaches are more typical.

One in particular renders the optimality of the competitive solution problematic: reorganization which increases productivity via the substitution of lower-skilled labor for higher. Skilled workers do not choose to be replaced by unskilled workers. One might be permitted to stay on, provided he change his work-category and accept a lower wage, but this "choice of work packages" is not between "more meaning with less pay" and "less meaning with more pay." It is between less meaningful, lower paid work and no work at all. (These are not the only choices if the worker's skill is in demand elsewhere, but even in this case he cannot be said to have freely chosen the reorganization.)

Even apart from free choice considerations, which though important are not decisive within the utilitarian framework, cases of this type are troublesome. If it is the case that there is a shortage of skilled labor, then the replacement of a skilled laborer by an unskilled one might well yield an overall social gain, for the valuable talent
of the former may now be redirected where it would be more productive. But if there is no such shortage, this argument fails. The skilled laborer, to be employed at all, must change his category, dropping perhaps into the ranks of the semi-skilled or unskilled. The utilitarian cost here is not just the decrease in his consumption, but perhaps more importantly, the loss of his job-satisfaction, self-respect and so on.

At stake here is a matter of fundamental theoretical importance. The argument for the optimality of competitive capitalism rests on the presumption that the system compels those who make decisions to bear the full social costs of their decisions. But here we have a decision class of paramount importance, decisions as to how the workplace should be organized, for which the social costs are not borne by the decision-makers. The capitalist or his representative decides, and a rise in profits confirms the choice. But the market mechanism does not register the cost to the skilled worker who is now unable to exercise his skill.

We have been considering the reorganization of existing workplaces. New facilities would seem to fare somewhat better. Unless there is widespread unemployment, the owners of the new plant must entice workers away from their present employers. One way to do this is to offer them more satisfying work at the same wage. It is here that the worker's freedom of occupation exerts an influence on workplace
On the other hand, one may compete for workers by offering higher wages. When this form of competition is adopted, the worker's choice of occupation has no impact at all on working conditions. The overall influence of occupation choice, therefore, depends on the degree to which owners of productive facilities emphasize qualitative differences in workplace organization rather than (or at least in addition to) wage differentials when competing for workers. However, it seems apparent that such competition (except perhaps for professional people, top management personnel, and a few other special categories) is strongly inclined toward wage competition.

There are reasons for this, some obvious, others less so. Wage competition is a model of simplicity compared to competition based on qualitative organizational differences. Differences in wages are immediately quantifiable, no innovation is necessary, advertising costs are minimal. Experiments to determine the wage rate required to yield the required number of employees is relatively simple once the organizational format is decided. Experiments with various formats relative to a fixed wage are more complex, time-consuming and costly.

The "convenience" of wage competition may account for (at least in part) the relative insignificance of worker choice of occupation in influencing workplace organization,
but there is another factor which needs to be considered. Our analysis so far might leave one with the impression that organizational changes are dictated solely by the requirements of technological efficiency. We maintain that this is not the case: capitalist reorganization is biased in the direction of "dehumanization." When faced with a choice of productive techniques which yield the same output and require the same outlay in capital and wages, but which differ in degree of general work-satisfaction, a capitalist has good reasons for preferring the "less human" alternative. (We do not claim that he will always choose the "less human," nor is such a claim necessary to establish utilitarian non-optimality. If he ever so chooses, the system is non-optimal. If he often does, the problem is significant.)

This claim might seem to contradict the assumption of profit-maximization, for in the case described, profits would be identical. The choice, it would seem, would be indeterminate. We seem to be imputing sinister motives to the capitalists, or to be exposing ourselves to Nozick's sneer: "And don't say it's against the class interests of investors. . . . Investors are not so altruistic."73

The reasons we have in mind, however, are not sinister, nor are they grounded in "altruistic" appeals to class interest. They rest on the individual capitalist's ability to distinguish his immediate short-term interests from his somewhat longer-ranged ones. We assume only that a capitalist
possess a normal degree of rationality.

Our argument does require certain assumptions about "meaningful" work which must be made explicit. We assume that a reorganization which makes work more "meaningful," more "human," and more "satisfying" will ordinarily involve one or both of the following sets of changes: changes which allow the individual workers greater exercise of their human faculties—intelligence, imagination, judgment, and so forth—and changes which give workers collectively more control over the work they do. By collective control we mean a direct voice (via some democratic forum) in matters concerning what is produced, how much, and under what conditions. 74

Now it seems obvious that changes of the latter sort, which involve direct infringements on the traditional prerogatives of ownership, would be resisted even if short-range profits were not likely to be affected. One is usually not indifferent to usurpations of one's power. This is particularly so if long-range profits might well be affected, as would be the case with worker-control, for it would interfere drastically with a major means of profit making—the replacement of skilled workers by unskilled. It is here that we find the interests of capital and labor most sharply in opposition. Here we confront a principal "contradiction" of capitalism.

The problem of replacing skilled workers by unskilled was examined earlier, and shown to undermine capitalism's
claim to utilitarian optimality—unless it could be assumed that a skilled worker could always find an outlet for his talent. Now, this assumption, while obviously not universally true, might seem to depend for its validity on the random, class-neutral development of technology. What we wish to argue is that this development is not neutral. When faced with a choice of techniques equally costly (in terms of capital and wage outlay) but involving different levels of skill, the capitalist has good reasons for choosing the one involving the lower skill level.

The basic reason is straightforward. The skilled worker is more difficult to control than the unskilled. The skilled laborer, for one thing, is necessarily in shorter supply, and is therefore less dispensable, since the former can almost always do the work of the latter, but not vice-versa. Since factory discipline has as its chief "stick" the threat of dismissal, it is not in the interest of the capitalist to adopt techniques which would make the threat less enforceable.

The correlation between skill and intransigence has often been remarked. Marx quotes from Andrew Ure's 1835 treatise, The Philosophy of Manufactur (sic): "By the infirmity of human nature, it happens that the more skillful the workman, the more self-willed and intractable he is apt to become, and of course the less fit a component of a mechanical system in which ... he may do great damage to the whole."
In this century the problem has not merely been recognized. Under the seminal influence of Fredrick Winslow Taylor—"the father of Scientific Management"—a whole philosophy and technology of work has developed to deal with it. This development has such direct bearing on the question we are concerned with that it merits some consideration.77

As conceived by Taylor, "Scientific Management" is a sustained attempt to resolve what he saw as the "greatest evil from which both workmen and employers are suffering"—"systematic soldiering." or the loafing that goes on not because of the "natural laziness of men" but as a result of "a careful study on the part of workmen of what they think will promote their best interests." As Taylor sees it,

The greater part of systematic soldiering . . . is done by the men with a deliberate object of keeping their employers ignorant of how fast work can be done. So universal is soldiering for this purpose that hardly a competent workman can be found in a large establishment, whether he works by the day or on piece work, contract work or under any of the ordinary systems of compensating labor, who does not devote a considerable part of his time to studying just how slowly he can work and still convince his employer that he is going at a good pace.78

Taylor's solution is justly famous. Management should take control of the workplace to a degree previously unknown. The labor process must be pre-planned and pre-calculated to such a degree that the process no longer exists as a unified whole in the mind of the worker, but only in the minds of a special management staff. As Taylor emphasizes, "All possible brain work should be removed from the shop and centered..."
in the planning or laying-out department."

To achieve the desired control, extensive experimentation is necessary, time and motion studies in particular, for "the managers [must] assume the burden of gathering together all of the traditional knowledge which in the past has been possessed by the workmen, and then of classifying, tabulating and reducing this knowledge to rules, laws and formulae." This is but a brief survey of Taylor's work, the corpus of which has been called by sociologist and management consultant Peter Drucker "the most powerful as well as the most lasting contribution America has made to Western thought since the Federalist Papers." The important points to note are these. Scientific Management specifically locates the problem in the recalcitrance of the workers, and sees the solution in removing the control of work from the workers. This is done by reducing to a minimum the intelligence, imagination and judgment required by the laborer.

If it is true that Scientific Management has had considerable impact on workplace organization, then it seems clear that the evolution has not been determined solely by considerations of technological efficiency, but to a significant degree as well by considerations of "class interests."

There remains one argument to consider. An advocate of capitalism might concede that so long as organization initiative remains with the capitalists, worker preferences
will have little impact. "But," he might continue, "capitalists need not retain the initiative. If workers are really unhappy, there are alternatives available to them. If they really want something better (and are willing to pay for the loss of efficiency), then they can take the initiative." Nozick suggests this possibility in his discussion of worker control.

Of course, as an alternative, persons may form their own democratically-run cooperative firms. It is open to any wealthy radical or group of workers to buy an existing factory or establish a new one, and to institute their favorite micro-industrial scheme; for example, worker-controlled democratically-run firms. . . . The important point is that there is a means of realizing the worker-control scheme that can be brought about by the voluntary actions of people in a free society.82

It is not entirely clear what one can make of this argument. Even if there does exist a class of wealthy radicals, or strata of workers affluent enough to buy a factory, this obviously does not prove that less affluent workers, unacquainted with the "radical rich" are unwilling to trade part of their paychecks for more meaningful work. Surely they have no choice.

Maybe Nozick has a rather more sophisticated argument in mind: If workers really want meaningful work, then cooperatives will spring up, funded initially by radical philanthropists, wealthy workers and others. They will be few at first, as is the case with all innovative organizations under capitalism, but if they are technologically and operationally viable, they will gradually attract workers away
from the capitalists until a point is reached when everyone
is optimally satisfied. As a matter of fact, such a scen-
ario has not materialized. Hence, either the cooperatives
are not economically viable, or they are not really attrac-
tive to the vast majority of workers.

It is tempting to counter this argument by appealing to
contingent historical facts to explain the failure of the
various cooperative ventures which have appeared (not infre-
quently) on the capitalist stage. We will resist this temp-
tation because it focuses on the wrong issue. The key ques-
tion is not why specific cooperative ventures have failed,
but why the movement as a whole has not expanded. The essen-
tial question can be answered without an appeal to contin-
gent historical facts. We need only note that there is a
basic structural difference between capitalist and coopera-
tive firms which renders the former inherently expansionary,
but not the latter.

If a capitalist organizational innovation proves suc-
cessful, the owner of the enterprise can increase his total
profits by reproducing his scheme on a larger scale. He can
reinvest his profits, or, a proven success, borrow additional
capital, to expand his plant or to open new branches. He
lacks neither the means nor the incentive to do so.

Such is not the case with a successful worker-controlled
firm in a capitalist economy. The successful workers may
have the means, but they lack the incentive. Since new
workers become co-owners, they merely dilute the voting strength of the existing membership, while enlarging the number who will share in the total proceeds. Doubling the size of a successful facility (all else equal), will double the profits of a capitalist owner, but will leave the material share of each cooperative owner unchanged, while at the same time diminishing his political strength. Each new cooperative venture requires a new wealthy radical or a new group of affluent, idealistic workers who will eschew the means of furthering their own material interests which is legally open to them—the hiring of wage-laborers. That such people have not spontaneously appeared in quantities sufficient to lure the rest of the workforce away from the capitalists can hardly be taken as evidence that workers would not choose worker-controlled organizations if offered a genuine choice.

To summarize briefly: we have argued that workplace organization cannot be regarded as the outcome (intended or not) of free choice on the part of workers between alternative mixes of "meaning" and income. We have argued also that when a change takes place in the direction of "dehumanization," the rise in productivity does not necessarily compensate for it, and that workplace evolution is not the result of ethically-neutral technological development, but is biased in the direction of dehumanization.

We must conclude, I believe, that capitalist enterprises
tend to dehumanize workers, and that the legal possibility of independent worker-controlled firms provides only a slight counter-tendency. The "commonsense" capitalist dictum that only those things which best accord with people's needs and desires will survive the struggle of free competition, whatever truth it might have regarding consumer goods, has virtually none with respect to workplace organization. The utilitarian case for capitalism in this respect is nil.
Notes

1 Rawls, pp. 64, 302.

2 Ibid., p. 64.

3 Ibid., p. 83.


5 This proposition is not a necessary truth, as will become apparent when we put forth a socialist alternative in Chapter Three. But even if a socialist society does not allocate production goods via a market mechanism (few in fact do), Mises' conclusion is false.


7 Economists today tend to identify "economic rationality" with Pareto-optimality, a situation wherein no one can be made better off without making someone worse off. Mises does not make clear his notion of economic rationality, though he does make it clear that he thinks socialism will be profoundly irrational and inefficient.

8 Mises, p. 102.

9 Oscar Lange and Fred Taylor, op. cit., among others.

10 Vilfredo Pareto, Cours d'conomic politique (Lausanne, 1897), II, 364 ff.


The full-blown argument is complex, but a simple example can illustrate the general idea. Suppose a society produces only two consumer goods C₁ and C₂, each of which is made from raw materials R₁ and R₂. Suppose C₁ and C₂ are distributed to the populace (in any manner deemed ethical or rational), and are assigned relative prices c₁ and c₂ reflecting a judgment concerning the respective values of (the marginal utilities of) each. (A convenient way of determining c₁ and c₂ is to distribute money among the populace, and then let them bid for the available quantities of C₁ and C₂. Some other procedure might be adopted, however.)
The problem raised by Mises is the determination of the prices $r_1$ and $r_2$ of $R_1$ and $R_2$ respectively from the available data. Rationality requires some correlation between $c_1$, $c_2$ and $r_1$, $r_2$.

The solution invokes the efficiency rule, price = marginal cost. Suppose in our example that $c_1=2c_2=80$ and that, at the given level of production, it take two units of $R_1$ and three units of $R_2$ to make a unit of $C_1$, and four units of $R_1$ and one unit of $R_2$ to make a unit of $C_2$. The efficiency rule requires that $2r_1+3r_2=80$ and $4r_1+r_2=81$. Solving these equations simultaneously, we get $r_1=10\%$ and $r_2=60\%$, the rational prices of $R_1$ and $R_2$—rational in the sense that if society values a unit of $C_1$ twice as highly as a unit of $C_2$, it must value a unit of $R_2$ six times as highly as a unit of $R_1$ to avoid allocational inefficiencies.)


13Lest the reader think it unfair to so label the Mises argument, a further quote is in order: "Socialism is unrealizable as an economic system because a socialist society would not have any possibility of resorting to economic calculation. This is why it cannot be considered as a system of society's economic organization. It is a means to disintegrate social cooperation and to bring about poverty and chaos." The Anti-Capitalist Mentality (South Holland, Ill., 1974), p. 102


15The Wealth of Nations, p. 28.

16Economics, p. 456. (Emphases Samuelson's.)

17Cf. Bergson, pp. 204, 207.


19This latter formulation is the one normally used by welfare economists. Cf. Tibor Scitovsky, Welfare and Competition (Homewood, Ill., 1971), p. 108.

As is well known, this conclusion requires an additional assumption—that firms operate under conditions of diminishing returns. (Cf. Samuelson, Economics, p. 473 or Scitovsky, p. 188.) We will not consider here the plausibility of this assumption.

"Marginal substitutibility" is called by other economists and by us "marginal utility." Cf. Bergson, p. 204.


Within a certain range the substitutibility principle seems plausible. But is it reasonable to deduce from the fact that a person purchased 100 pounds of hamburger at 50¢ a pound and an $8000 Cadillac during the year that he judges the Cadillac to be equal in subjective utility to 16,000 pounds of hamburger—on the grounds that if he thought the Cadillac overpriced relative to hamburger, he could have bought eight tons of hamburger instead and been happier? One does well to keep in mind the assumptions of neoclassical price theory when comparing it with the classical "labor theory of value."

This, of course, is well-known to welfare economists. Perfect competition establishes Pareto optimality—a situation wherein no one can be made better off without making someone worse off—not utilitarian optimality. A good discussion of Pareto optimality and its relation to utilitarianism and to welfare economics can be found in A.K. Sen, On Economic Inequality (Oxford, 1973), pp. 1-25.


The issue of "alienated labor" arises here, as well as the more traditional concern with "efficient" allocation. If it is true that the same productive activity is experienced differently depending on the social setting of that labor, then a utilitarian analysis must take such differences into account. The degree to which the labor appears useful, to the individual or to the community at large, would seem to be an important factor. A convict sledgehammering stone as punishment experiences his work differently, surely, than does a wage laborer, and both experiences would seem significantly different from that of a rock-breaking brigade taking part in a voluntary community-rehabilitation project.

This terminology is not meant to suggest that the
individual really is entitled to the object in question. What a person really is entitled to, on utilitarian grounds, remains to be established. It should be noted, though, that while entitlement-pain may be irrelevant in comparing alternative economic organizations as we are doing in this dissertation, it is not at all irrelevant concerning the morality of the transition from one system to another. But that is a separate question altogether.

We are assuming here, remember, a utilitarian ethic, not a "natural rights" one. One might wish to maintain that certain deprivations are immediately painful, regardless of the social system—not being able to enjoy the "full fruits" of one's own labor or talent, for example. This claim seems prima facie false, but in any event it is meaningful only where it is clear just what constitutes the "full fruits." Cooperative production, the overwhelmingly predominant type in modern societies, makes the problem of relative contributions exceedingly complex—as was shown in detail in the last chapter. The important consideration for a utilitarian is not "instinctive" entitlement pain, but the question of incentives.

The asymmetry here indicates an incompleteness in our analysis. If some productive activity is pleasurable and some consumption detrimental to well-being, then we need also to ask whether capitalism maximizes production pleasure and minimizes consumption pain. (More precisely, whether the total happiness obtained by summing the production and consumption pleasures and subtracting production and consumption pain is maximal.) We will consider some of these complications later. For now we will assume that all labor is painful and all consumption pleasurable.

Lerner, p. 67.

We analyzed this notion of "contribution" in Chapter One, p. 17 ff.

This "freedom" is identical in substance with what Marx calls the "commodity-character of labor-power." The worker is free to sell his labor-power on the market to the highest bidder, just as anyone is free to sell any other commodity. Marx's analysis of this "freedom" is much different, of course, from the neoclassical analysis we are now considering.

This argument does not logically entail utilitarian optimality. It might be the case, say, that a progressive income tax would lead certain individuals to work even harder at unpleasant jobs, given their intense preoccupation
with consumer goods. It might be the case, on the other hand, if people's preferences were more or less the same, that equality of income and job rotation would yield greater happiness than the market mechanism. We will not pursue these issues here. We are interested in constructing a plausible case for the utilitarian optimality of the market mechanism, not a logically necessary one.

Contemporary conventional economists cringe at such assumptions, though they seem reasonable enough to utilitarians or Rawlsians, both of whom acknowledge the possibility of interpersonal comparisons. Scitovsky, on the other hand, writes: "One might define an efficient economic organization as one which maximizes the sum total of human satisfactions. Accordingly, we might argue that taking $100 from a millionaire and giving it to a beggar would not only render income more equitable, but would also raise the efficiency of the economic system, since the millionaire's loss of satisfaction would be negligible, while the beggar's gain considerable. This argument appeals to common sense, but it cannot be proved, because we cannot compare or add one person's satisfaction to another's." Scitovsky, p. 64.

This analysis rests on the neoclassical presupposition that managers can determine the marginal physical product of workers, an assumption of dubious veracity. If managers cannot make such judgments with any degree of accuracy, then the question of occupation valuation becomes exceedingly complex. We need not go into such matters here, since the difficulties faced by a socialist society in this regard would not seem to be any more serious than those found in capitalist society.


This issue appears fundamental to the Sino-Soviet ideological dispute. Cf. E.L. Wheelwright and Bruce McFarlane, The Chinese Road to Socialism: Economics of the Cultural Revolution (New York, 1970). Cf. also Sen, Chapter 4, "Work, Need and Inequality," pp. 77-105 for a more theoretical discussion.

Scitovsky, p. 288. It is curious that Scitovsky assumes that increasing the national income would involve greater inequality, in view of his admission that "we know nothing at all" about this. Keynes suggests the opposite. "Thus we might aim at a practice ... which allows the intelligence and determination and executive skill of the financier, the entrepreneur et hoc genus omne (who are certainly so fond of their craft that their labor could be obtained much cheaper than at present) to be harnessed to the service

The contrast between the Marxian notion of exploitation and the neoclassical stands out here sharply. Consider a situation of ten equally skilled laborers, working their separate plots of equally fertile land which they rent from a landlord. Suppose each produces 19 bushels of wheat and pays one to the landlord. Here there is Marxian exploitation, since each worker produces 19 bushels but keeps only 18 for himself. Is there neoclassical exploitation? Not necessarily. Suppose nine of these same workers working the same land (each plot slightly enlarged) could grow 19 1/9 bushels apiece. This indicates that the marginal productivity of each of the ten workers in the first case is only eighteen bushels (10x19 - 9x19 1/9), and so the rental rate is not exploitative. It represents the "contribution" of the land.

Cf. our argument, p. 27 ff.

The quantity of the reward is a significant factor in evaluating overall disutility. In the United States the distribution of the total product between capital and labor is approximately 25%-75%, and has been relatively constant throughout this century. Samuelson, Economics, p. 537.

If capitalists invest their income rather than consume it unproductively, the question of the utilitarian optimality of this investment arises. This issue involves dynamic analysis and will be considered in Chapter Four.

In this section "neoclassical" refers to the pre-Keynesian marginalists, and to those contemporary economists who appear insensitive to the Keynesian insight (Hayek and Friedman, at least in some of their writings, fall into this latter category. Cf., for example, The Constitution of Liberty, pp. 270-1 and Capitalism and Freedom, p. 124.) This is a more restricted usage than we employ elsewhere, where "neoclassical" is synonymous with marginalist, with or without a Keynesian graft. (The distinction is made by some writers between "neoclassical" and "neo-neoclassical." We will resist this terminology.)

Keynes, p. 5.

Ibid., pp. 8-17.

Ibid., p. 258.

It is worth emphasizing that the involuntary unemployment discussed here is not the result of labor unions, minimum wage legislation and the like. A person cannot get work because his marginal value contribution is too low. His marginal value contribution is low because prices are low; prices are low because demand is low, and demand is low because there is so much unemployment. It may well be the case that any unemployed individual at any given time could find work by working for a lower wage than someone already employed, but he would merely substituting himself for a fellow worker. Minimum wage legislation, welfare provisions, labor unions, etc. might inhibit such a substitution. But such a substitution, should it occur, would simply lower aggregate demand still more, reducing the volume of employment required for equilibrium. The essential point of Keynesian theory is that the market contains no self-regulating mechanism to insure full employment. (Cf. Keynes, pp. 27, 267.)


Keynes, p. 16.


Friedman, p. 15.

Our choice of terminology here is convenient for our purposes, but it is potentially misleading. "Consumer sovereignty" might perhaps be more appropriately applied to the normative claim. But since it is employed in both senses in the literature, and since it is the empirical claim we will focus on, we will use it here to designate the empirical assertion.

"Consumer sovereignty" is sometimes used descriptively to designate a situation in which consumers are allowed to make purchases in a "free market," and also sometimes to refer to that variant of psychological egoism which holds that people's purchases always reflect their beliefs about what will maximize their happiness. Our definition of consumer
sovereignty is distinct from either of these usages; it is, rather, that version of psychological egoism which asserts that people's choices do maximize their well-being.

57 The planning commission itself might sometimes attempt to stimulate demand for a particular product (as an alternative or complement to price cutting when faced with an oversupply, for example). But unless the production managers' salaries are tied to firm size or profitability (rather than to fulfillment of specified production goals), there is no systematic incentive to stimulate all consumer demands in the economy. (These remarks do not constitute advocacy of a command economy, though they do point to a difficulty in market economy, socialist as well as capitalist.)

58 The New Industrial State, p. 200. It is difficult to measure these costs, but estimates are sometimes made. Baran and Sweezy quote from the Statistical Abstract of the United States, 1963: "Total spending on advertising media rose to 10.3 billion in 1957, and amounted to over 12 billion in 1962." They continue: "Together with outlays on market research, public relations, commercial design, and similar services carried out by advertising agencies and other specialized firms, the amount now probably exceeds $20 billion. And this does not include the costs of market research, advertising work, designing, etc., carried on within the producing corporations themselves." Paul Baran and Paul Sweezy, Monopoly Capital (New York, 1966), p. 119. (These precise figures may be open to question, but no one doubts that billions of dollars are involved annually.)

59 Such is the view at any rate of one of the leading protagonists in the controversy, Cambridge economist Robin Marris. "After a quarter of a century during which advertising has become one of the outstanding features of our economic life, and scientific economics has been intensively developed, the relevant experiments have not been tried." "Galbraith, Solow, and the Truth About Corporations," Public Interest, Spring 1968, p. 38. Cf. also James M. Ferguson, Advertising and Competition: Theory, Measurement and Fact (Cambridge, Mass., 1974), a defense of advertising on the grounds that a defendant must be assumed innocent until proven guilty.


61 This would be the case, for example, if they simply relieved productive laborers of a portion of their work. If everyone is paid exactly as before, production, distribution and consumption need not be affected. But those relieved of
work would be made better off in terms of leisure. Notice, however, if wasteful industries are simply abolished and market forces allowed to handle the adjustment, everyone will not automatically be made better off. Those thrown out of work will be made worse off, as will the laborers with whom the unemployed compete for jobs. It is characteristic of the market mechanism under capitalism that a sudden increase in the supply of a productive factor or commodity results in some people being made worse off than before. (Witness workers replaced by machines, farmers dismayed by falling food prices, coal miners rendered "useless" by cheap and plentiful oil.) This is surely paradoxical, since an increase in supply without a corresponding increase in cost always has the potential for making some people better off without making anyone worse off. Neoclassical economists assure us that in time Pareto equilibrium will establish itself. They do not say how long one must wait, nor can they offer assurances that new disruptions will not occur before the old have been settled.

One need not assume moral depravity on the part of owners of means of production to acknowledge that the temptation to deception (of oneself as well as others) is considerable in such a system. It is difficult to be objective about competing commodities when one's livelihood is bound to one of them. This difficulty, as we shall see in the next chapter, is not confined to capitalism, but poses a problem for certain forms of socialism as well.

This expectation presupposes rising aggregate demand, whether induced by the sales effort or due to other causes. The aim of a sales campaign is a rise in sales. If demand does not increase, then the owners of means of production, however rationally they behave, cannot all be successful in achieving this end.

Cf. our earlier discussion, p. 51 ff.

"Value" is understood here as defined by marginal product theory and not as a normative concept.

"Dehumanization" is a strong word, though appropriate, I believe, to contemporary and historical reality. The basic sense of "dehumanization" to be understood here is the inhibition of the exercise of human faculties—intelligence, imagination, etc. We will assume, so as to satisfy the demands of hedonistic utilitarianism, that a system which restricts the exercise of human faculties tends to decrease the pleasure and sense of well-being of those so inhibited. We will argue that the organization of the workplace under capitalism is restrictive without being
adequately compensatory, and hence is utilitarian non-optimal.

67Capital, I, 196.


70Nozick, of course, is not a utilitarian, but he does lay out, for his own purposes, the argument implicit in the utilitarian defense. Since he pays explicit attention to the problem of meaningful work, it is convenient to use his formulation.

71Nozick, p. 248. We will consider only the "first way" of bearing the lessened efficiency. The other two, groups of consumers voluntarily subsidizing the less efficient plants or governmental prohibition of non-meaningful work, would seem to be of minimal significance in any realistic version of capitalism.

72If the new firm engages in such competition, the older ones may elect to follow suit; thus a worker's choice of occupation may affect reorganization as well. This complication is not significant to our argument.

73Nozick, p. 252.

74As stated, this argument is situated within an ideal utilitarian framework which includes "the exercise of human faculties" and "control over one's immediate environment" as goods to be maximized. A hedonistic utilitarian would have to show (or assume) that an increase in the exercise of human faculty and in immediate environmental control results in a corresponding increase in the pleasure of work and a decrease in the pain.

75We are considering here long-range trends, since they are the ones taken into account when deciding workplace organization. Obviously short-run shortages of unskilled labor and surpluses of skilled sometimes develop.

76Capital, I, 405.
Braverman's recent work, *op. cit.*, has drawn attention to Taylor. My analysis here follows Braverman.

Taylor's three principle works, *Shop Management* (1903), *Principles of Scientific Management* (1911), and the public document, *Hearings Before the Special Committee of the House of Representatives to Investigate Taylor and Other Systems of Shop Management* (1912), are contained in a single volume, Frederick W. Taylor, *Scientific Management* (New York, 1947), and are separately paged therein. The noted quote is from *Shop Management*, pp. 32-3.

*Shop Management*, p. 98.

*Principles of Scientific Management*, p. 16.


Nozick, pp. 250, 252.

This difference generates peculiar problems for a worker-controlled economy, as we shall see in the next chapter. Specific institutions must be developed to deal with them if the system is to function efficiently.

Nozick cites the "large cash reserves in union pension funds" and asks why groups of workers are not instituting worker-control schemes now. He concludes that workers are not willing to bear the risks (p. 255). Now, if this argument is meant to show that workers do not really want worker-control, it is fallacious. The conclusion that workers are averse to the risks of worker-control is itself unwarranted in light of the legal restrictions placed on pension funds. The pension Fund Act of 1974, for example, prohibits the investment of a pension fund in excess of 5% of the total capital of a company. Thus pension funds cannot legally be used to take control of a company. (Cf. Peter Drucker, "Pension-Fund 'Socialism,'" *The Public Interest*, Winter, 1976, p. 6.)

Moreover, even if workers were hesitant to take the (quite substantial) risk associated with setting up a new business in a modern capitalist society, little can be concluded about their basic preferences. If a slave declined an offer of freedom because it was contingent on his playing Russian roulette with his master's manservant, one would scarcely conclude that he really did not desire his liberty.
WELFARE-STATE CAPITALISM AND WORKER-CONTROLLED SOCIALISM

A utilitarian evaluation of capitalism is radically incomplete without a consideration of alternatives. We have uncovered a number of serious flaws in competitive laissez-faire capitalism: the distribution of wealth appears non-optimal; there is no mechanism to insure full-employment; consumer preferences tend to be shaped non-optimally; workers are unable to influence significantly the evolution of the workplace so as to produce an appropriate balance between job-satisfaction and productivity. But two questions immediately arise. Cannot the laissez-faire system be appropriately reformed without abandoning capitalism altogether to handle these difficulties? And if not, is there any plausible alternative which has neither these defects nor any overriding failings of its own? To these two questions we now turn our attention.

Welfare-State Capitalism

The commonly advanced reform candidate is welfare-state capitalism, the "mixed economy" of contemporary liberalism. Welfare-state capitalism cannot be defined as precisely as perfectly competitive laissez-faire, for it is not a
stylized model, but a general category encompassing all existing capitalist economies among the industrialized nations, and virtually all reform schemes. It differs from laissez-faire in that the government plays a large, explicitly economic role, intruding into the marketplace to correct or mitigate the deficiencies of laissez-faire. Characteristically, the government engages in some redistribution of wealth (via progressive taxation, social security measures and the like); it undertakes macroeconomic policies aimed at securing a high level of employment; it involves itself in worker and consumer protection by setting various health, safety and product standards. It also oversees the competitive character of the market, attempting to regulate monopolies or to prevent their formation. The system remains capitalist, for it retains the distinguishing features of capitalism. The market remains the primary mechanism for factor allocation and product distribution, labor-power remains a commodity, and the fundamental prerogatives of private property ownership remain intact.

The glaring defect of progressive taxation as a mechanism for achieving an optimal distribution of wealth is its failure to discriminate adequately among sources of income. It fails to distinguish inequalities generated by inequalities of production—pain and skill-scarcities from those generated by property ownership. The latter, we have argued, is the essential source of utilitarian non-optimality
in capitalist distribution. Extra compensation for dis-tasteful work, and monetary incentives to encourage the development of needed skills might be required for utilitarian-optimality. That is a matter for social experimentation and empirical investigation. But there is no comparable case for property-income inequalities.

The difficulty here is not amenable to simple reform. A capitalist society cannot eliminate property-income and remain capitalist, for property-income serves an essential economic function in a capitalist society. Decisions about investment, production, workplace organization, etc. are made by the owners of the means of production or their representatives. But these decisions cannot be arbitrary if economic order is to prevail. And they are not arbitrary. The essential criterion is profitability, and this, as economists from Adam Smith on have argued, is sufficient for a degree of economic rationality. But this criterion will not translate into a human decision under capitalism unless the capitalist can appropriate the profit for himself.\(^4\) One cannot abolish property-income without replacing the capitalist allocative mechanism with another one, without, that is, replacing capitalism with something quite different. Progressive taxation might mitigate the non-optimality of laissez-faire, but it cannot eliminate the source of the non-optimality.\(^5\)

It was fashionable not long ago to think that the "new
economics" of the welfare-state had pretty much solved the unemployment problem. The recent recession, sharp and world-wide, has undermined this happy thought, and generated renewed interest in both Marxist and conservative economic theory, both deeply critical of the prevailing orthodoxy.

Marxist theory assigns a fundamental role to the unemployed. The "industrial reserve army" according to Marx, gives capitalists needed flexibility, and at the same time keeps wages at subsistence. While this is perhaps an oversimplification, it points to an important truth: full-employment is not unequivocally in the interests of the capitalist class. Too little employment is not good, of course, since it reduces product demand and generates political unrest, but neither is too much. Full-employment undercuts factory discipline, curtails a capitalist's ability to expand production when desired, and encourages workers to press for higher wages. As Michael Kalecki observed in his classic essay:

Indeed, under a regime of permanent full-employment, 'the sack' would cease to play its role as a disciplinary measure. The social position of the boss would be undermined and the self-assurance and class-consciousness of the working class would grow. Strikes for wage increases and improvements in conditions of work would create political tension.

Business analysts and conservative theorists draw similar conclusions, though they invariably mention and usually emphasize the connection between full-employment and inflation:
Unemployment remains too low for the workforce to have flexibility. Anytime the jobless total is less than 2 million even common labor is scarce. Many employers must tend to hoard skills. And certainly, the labor unions are in the driver's seat in wage negotiations. More workers can be had, to be sure. But at considerable cost. And they probably wouldn't be the skills most desired. There's no assurance against inflation like a pool of genuine unemployment. That's a blunt, hard-headed statement, but a fact.10

It's important to note that three distinct arguments are being put forth here. Unemployment gives employers flexibility; unemployment keeps labor unions in line; and unemployment tends to check inflation. The first two point unmistakably to the benefits of unemployment which accrue to the capitalist class. The latter, however, appears to be a universal benefit. This requires some comment, for if there is an "inevitable" connection between full-employment and inflation, then a fully-employed socialist economy is doomed to an ever-increasing price spiral.

There is, of course, no such inevitable connection. If the people put to work increase the output of consumer goods by an amount equivalent to their own consumption, then no inflation need occur. Inflation occurs when production does not keep pace with employment.

Why should production not increase? There may be technical reasons—an insufficient supply of raw materials, of tools, of plant facilities. This shortage may be due to natural causes, to a planning miscalculation (in a socialist economy) or to the fact that the independent, uncor-
Dominated investment decisions of capitalists did not result in the needed capacity.

In such cases the maintenance of full-employment requires political action, and necessitates a degree of inflation. A number of options are open. If the technical shortage is not a natural one, the unemployed can be put to work building the plants, making the tools, mining the raw materials, etc.\(^\text{11}\) Prices will rise temporarily (assuming that a price mechanism is used to ration goods), since demand—the wages paid the previously unemployed—will rise before the supply of consumer goods increases.

Workers might instead be employed in areas not related to increasing (wage-purchasable) consumer goods. They might be directed to build hospitals and parks, to clean up rivers and streets, to work in research facilities and teach in schools. The prices of consumer goods will rise, but so will the quality of life (assuming a judicious choice of projects).

A third alternative is to direct workers into areas unproductive of consumer goods or social amenities: burying bottles full of banknotes so that others might dig them up (to cite Keynes' famous suggestion),\(^\text{12}\) shuffling paper in a governmental bureaucracy, building unneeded bombers, missiles, warships and the like. This too will "solve" the unemployment problem.

It might be decided instead that the employed should
share their work with those out of work. Shorten working hours so that everyone might have access to means of production. The individual consumption of the employed must decline, but there is direct compensation in the form of increased leisure.

The unemployment-inflation problem can be dealt with in a variety of ways, some having greater claim to utilitarian-optimality than others. The option likely to be chosen, however, is not independent of the economic system. In a socialist society all of these methods are legitimate in terms of the prevailing ideology, except perhaps purely unproductive employment. In a capitalist society, even of the welfare-state variety, certain options go beyond the conventional separation of government and free enterprise. It is not the prerogative of government to engage directly in the production of consumer goods, for example. The government can try to entice businesses to expand by lowering interest rates, or by increasing demand (via unproductive employment, perhaps), but it cannot channel workers directly into these areas. Nor can the government insist that overtime be reduced or the working day cut so as to provide more employment. The length of the working day is a private affair to be settled by labor-management negotiations. And here, though labor may have an interest in reducing the workday to cut unemployment, management has none. Neither production nor demand will be increased by this measure to
offset the beneficial effects (to capital) of unemployment.

Two options remain open to the government of a welfare-state capitalist society: investment in areas outside the arena of commodity production which produce real benefits to society and investment in areas which do not. Historically, welfare-state capitalism has engaged in both. Highways and harbors, schools and space centers have been built by men and women directed into these areas by public funds. But a massive bureaucracy and a gigantic "military-industrial complex" have been funded as well.¹⁴

The difficulty facing welfare-state capitalism with respect to unemployment is thus twofold. On the one hand, given the positive value to the capitalist class of unemployment (flexibility in expansion and a check to labor aggressiveness), a sustained commitment to genuine full-employment is unlikely to be forthcoming.¹⁵

On the other hand, when the government does intervene to increase employment, several options which might well be preferable on utilitarian grounds are closed to it. In fact, the option with the least claim to optimality—unproductive expenditure—is particularly tempting to a government trying to mediate the conflicting demands of capital and labor. Such policies create jobs, increase the demand for consumer goods, but offer no competition to existing productive enterprises. Indeed, the dose of inflation which generally accompanies such policies, provided it is moderate,
is quite pleasant to the business community, as Hayek himself observes. 16

The problem of advertising—more generally the problem of institutional distortion of consumer sovereignty—which figured prominently in our analysis of laissez-faire is little mitigated by the welfare-state. Some regulation is imposed, but no attempt is made to insure that the sales effort appeal only to the rational interests of the consumers. Theoretically, such legislation could be passed, but for reasons that will be elaborated in the next chapter, such legislation, even if it could overcome the enormous resistance of the business community, might prove economically disastrous. Capitalism, we shall argue, requires continuous growth to remain healthy. This growth requires a steady increase in private consumption. To the extent to which such growth in consumption rests on a sales effort which creates non-optimal wants and needs, it must be maintained if the system as a whole is to function smoothly.

Differences between laissez-faire and welfare-state capitalism concerning the dehumanization of the workplace also appear minimal. The "welfare" provisions of welfare-state capitalism have to do, normally, with those who are not working rather than with those who are. Of course, factory legislation, health and safety standards and the like are far from insignificant in their utilitarian import, but they in no way touch what we have argued are the root
issues—the tendency of capitalist production to decrease wherever possible the human skill involved in the labor process, and the lack of control of the workers over the conditions which affect their daily lives. It does not seem that a government can address these problems without radically redefining property relations, the control the owners of means of production can legally exercise over what belongs to them, so much so that the system would cease to come under our definition of capitalism.

A Socialist Alternative

The difficulties with capitalism we have been investigating, which inhere in both the laissez-faire and welfare-state versions, are ethically decisive only if an alternative exists which does not have these defects or any other overriding ones. Let us now consider what we believe to be a model of just such an alternative. We will strive for a certain level of concreteness, though we will not try to avoid all abstraction and simplification. Space limitations alone preclude an excessively detailed discussion. Nor is an overly-detailed model really desirable at this point, since the optimality of certain features cannot be decided abstractly. There are in fact a variety of constructions which fit our general scheme. If a new economic and social order such as we propose comes into existence, certain institutional arrangements will be adopted, some arbitrarily, all conditioned by the specific circumstances surrounding
the emergence of the new society. Problems will develop, certainly, which will necessitate modifications in directions which cannot at present be anticipated. A detailed blueprint could be presented now, if one wished to work one out, but it would contain such a large number of arbitrary specifications (the optimality of which could not be settled by abstract argumentation), that the essential features might well be obscured.

The model we propose is not to be thought of as a timeless "best of all possible worlds." The viability and desirability of a particular socio-economic arrangement is conditioned by at least two factors, the concrete productive capacities of society and the prevailing psychological dispositions. Neither of these is eternal or immutable; both are strongly influenced by societal institutions. It seems likely that the system we propose will, if realized, lead to a gradual change both in the productive process and in human consciousness so as to render certain features of the system non-optimal. (This evolution will be discussed briefly at the end of this dissertation.)

The model we propose is for organizing an advanced industrial society. What modifications (if any) would be necessary for our model to be viable in an underdeveloped country will not be considered. The "level of consciousness" we presuppose is different from that which exists in the West today, though not incredibly different. We do not
presuppose that consciousness Marx attributes to "communism," wherein individuals identify their being with their "species-being" and for whom labor is "a free manifestation of life and an enjoyment of life." On the other hand it seems perversely conservative to assume that the dominant psychological motivation is a narrow self-interest which excludes any significant sense of social solidarity or responsibility. If the society we advocate is to establish itself in reality, it must first become an ideal in the minds of great numbers of women and men who organize, agitate, and struggle for its realization. Such a struggle would certainly result in a shift in consciousness. It is reasonable, therefore, to assume a heightened sense of communal responsibility in the society we propose, a sense which will be reinforced by the concrete features of the new society which require the exercise of democratic decision procedures far more frequently than at present.

The model we wish to defend is one of democratic, worker-controlled, market socialism. We will concentrate on the economic organization, rather than on the political, and attempt to demonstrate its economic coherence and social desirability. We assume that the political structure will be democratic, with representative bodies at the community, regional and national level. How these bodies will be selected, what their respective authorities will be, and how they will interact will not be specified.
The essential features of our model are these. Each productive enterprise is controlled democratically by its workers, who are responsible for the day-to-day operation of the facility: the organization of the workplace, factory discipline, techniques of production, what and how much to produce, and the distribution of the net revenue. The state has three basic functions: to oversee (as will be specified below) the productive assets utilized by the enterprises, to control the bulk of new investments, and to provide the "free services" usually associated with governments (national defense, police and fire protection, health and welfare services, etc.).

The economy as a whole functions as a market economy. Firms buy raw materials from other firms and sell their products to other productive enterprises or to consumers. A firm's net revenue is the difference between total sales and total costs (including taxes and depreciation but excluding wages). How this revenue is distributed among the workers of the firm is a matter for them to decide. They may opt for equality; they may decide to remunerate the less interesting or more onerous tasks more highly; they may decide to reward those possessing highly useful but scarce skills with special premiums to keep them from looking for work elsewhere. Such decisions are made democratically, one person, one vote.

Since workers' income is determined by the firm's
"profit,"²² all have a material interest in organizing the workplace as efficiently as possible (commensurate with job-satisfaction) and in producing a product which will satisfy the wants and needs of consumers. "Dead-weight" inefficiency of the type disruptive of Pareto-optimality should thus be avoided, at least with respect to product design and workplace organization.²³

Though the workers control the workplace to a decisive degree, they do not own the means of production. Means of production are collectively owned by society. This ownership expresses itself in the government's authority to insist that the value of the capital stock be kept intact. Depreciation reserves, for example, must be maintained. Workers are not permitted to allow the social assets in their trust to deteriorate (in value) or to sell off productive assets for personal gain. If a productive enterprise gets into economic difficulty—due to changing demand or whatever—workers are free to reorganize, to produce things other than they had been producing, or, as individuals, to leave and seek work elsewhere. They are not free, however, to sell off productive assets without replacing them with others of equal value.

Social ownership is also reflected in the government's power to tax capital assets. Taxes are designed to encourage efficient use of scarce capital goods, to equalize (to some degree) the per/laborer return in industries of
varying capital intensities, and in general to insure that market prices reflect opportunity costs, thus aiding planners in selecting new investments.

With a suitable tax structure worker-controlled socialism should be reasonably efficient in organizing the workplace and in allocating the non-human factors of production. The major difficulty with the system lies in the allocation of labor. This should not be surprising, since it is with regard to labor that our model deviates most radically from capitalism. The commodity-character of labor-power is one of capitalism's most objectionable features, but it is precisely this character which accounts for the degree of "efficiency" in labor-allocation attained under capitalism. When demand for a product rises, and is reflected in a price rise, the capitalist expands production. In particular, he reacts by hiring additional laborers, thus shifting labor from where it was less efficiently employed to where it is more so.

The same incentive-structure is not operational in our model. A rise in demand would be happily received by a worker-controlled firm, but there is little direct, material incentive to expand production. There is some, since the addition of workers would increase the number who must bear the burden of the tax on the fixed assets, but there is the countervailing consideration that total profits must be shared among more people. Our model thus exhibits a
structural difficulty which must be surmounted if it is to be at all economically viable: the inelasticity of supply with respect to a rise in demand.\textsuperscript{26}

This problem need not be as intractable in practice as it appears to be in theory, particularly if the difficulty is clearly perceived from the beginning. Consciousness is a significant factor here. So long as narrow self-interest is presumed to be the only motivating force, there appears to be little reason for workers voting to expand production when faced with a demand increase for their product. But if it were commonly accepted that an enterprise \textit{ought} to employ those who want to work there if it is reasonably feasible to do so, then a different result emerges. If a price rise effected to curb a surge in demand is interpreted, not as an eternal blessing, but as temporary compensation for the inconvenience of integrating new workers into the organization, then a reasonably efficient labor allocation should obtain.

There are several reasons for thinking that such a solution might prove viable. First of all, the cost to individual workers in a plant engendered by the additional workers would be slight. In general, workers would not find themselves \textit{worse} off than before the price increase, (though they would not be as well off as they would be if they did not increase production).

Secondly, workers may be expected to realize that
engaging new workers when demand is up promotes the general well-being of society. Their commitment to full-employment, for example, can best be realized by providing people looking for work with employment. They will, after all, have to bear a share of the unemployeds' upkeep anyway (through their taxes) if they do not provide them with work. (Unlike the situation under capitalism, the people who provide the jobs must bear the social costs of not doing so.)

Considerable moral pressure would likely be brought to bear on successful firms to expand production, particularly if their good fortune is fortuitous. Since the community is charged with overseeing the operation of its firms (as mentioned above), profit figures and salary structures should be a matter of public record. The community at large, not to mention officials responsible for maintaining full-employment, would certainly try to persuade the more successful ventures to employ more people. The political authorities are not empowered to force a collective to expand, but their moral authority might not be insignificant.

A stick does lie behind the carrot of moral suasion. The government controls the bulk of the new investments. Insofar as the profit/worker ratio in a given industry is substantially higher than average, there exists an incentive for investment in that area. This is not a punitive measure. It may well be the case that a firm has expanded to the reasonable limit of its physical or legal capacity.
If profits remain high, there exists a *prima facie* case for the establishment of more firms in that area. Potential profitability will certainly be one (though not the only) criteria for new investment.

It should be noted that the tendency of a worker-controlled firm to respond non-optimally to a demand increase is counterbalanced to a degree by its response to a decrease. While the capitalist is quick to hire more laborers in response to a demand increase (at least in theory), he is also quick to lay them off when demand declines. Such a reaction is not only costly to the workers directly involved, but it can cause as well a broader disruption. A decline in employment effects a further decline in demand, and can thus trigger the familiar chain-reaction which leads to recession.

A worker-controlled firm, in contrast, is slow to lay off workers unless they can find work elsewhere. The democratic process within the factory may be presumed to generate a sense of solidarity; in addition, decision-makers are not faced with long-term wage contracts. Thus, faced with a decline in demand, workers would have to cut back production, but the burden would likely translate into wage and work reduction for all.\(^{30}\) If the decline proved to be more than temporary, some members of the firm would presumably shift to more profitable enterprises, thus allowing the work and wages of those remaining to increase again.
Our presentation thus far has dealt with only one of the two fundamental features of our model, the "worker-control" aspect. The other basic feature is the control of new investments by the government. These two aspects are designed to correct, respectively, two kinds of problems commonly associated with capitalism: those deriving from the commodity-character of labor-power, and those involving "anarchy" of production. The objections to capitalism which we have treated so far belong to the first category. They arise from a consideration of "static" capitalism. The difficulties with "anarchy of production" surface when the dynamic nature of capitalism is analyzed.

This being the case, we will postpone our discussion of the second basic feature of our model until the next chapter, which is a treatment of the "dynamic case" for capitalism. There is more to be said about our model, but the details concerning governmental control of new investments are not germane to the defects of capitalism uncovered so far. Let us turn our attention again to these problems and see how our model compares.

A Comparison of Models

In Chapter Two we demonstrated the existence of prima facie capitalist non-optimalities in four areas: distribution of wealth, unemployment, sales effort, and workplace organization. We will now examine our model in each of these respects.
The distribution of wealth under worker-controlled socialism would appear to have a much greater claim to utilitarian-optimality than under capitalism, since the major source of non-optimality—property income—would be non-existent. Other inequalities, those grounded in differences in the pleasure-pain of occupations or in relative skill-scarcities, might well persist, but these, as we have argued, are not necessarily objectionable on utilitarian or Rawlsian grounds. Moreover, such inequalities would seem more likely to conform to the utilitarian or Rawlsian criterion than do similarly grounded inequalities under capitalism, since they would have to be explicitly justified before a democratic forum. The utilitarian or Rawlsian criterion can only be applied abstractly to capitalism. Under worker-controlled socialism specific inequalities would have to be specifically justified by the workers seeking them to their coworkers in the firm.

The objection is often raised that such inequalities will lead eventually to the gross inequalities and resulting abuses with which critics of capitalism are so often concerned. This objection merits consideration, for it suggests that property income is not per se particularly significant. Such, presumably, is Rawls' position, since he maintains that a theory of justice cannot pass judgment on the question of private-property.31

But surely private property is an extraordinarily
significant institution relative to accumulation of wealth. Without it certain key incentives to accumulation are absent, as is a crucial accumulation mechanism. Without private property, one cannot legally purchase with one's savings the power and prestige concomitant with ownership of productive wealth. Nor can one avoid labor by "putting one's money to work."

Without the opportunity to make money with money, the major path in a capitalist society to large-scale accumulation is blocked. To accumulate, say, a half-billion dollar fortune during a fifty-year working lifetime, one would have to save ten million a year. To accumulate even a million would require one to put away $20,000 a year. Why one would want to save so much is hardly clear, since—unlike the situation under capitalism—there is little to do with money other than spend it on personal consumption.

These theoretical arguments might be more convincing were it not for the undeniable empirical fact that widespread inequalities continue to exist in countries that have abolished private property. The Soviet Union is perhaps the most conspicuous example.

To this objection we must point out that to argue, as we have done, that private property is an institution conducive to sharp inequalities of wealth is not to claim that it is the only such institution. Certainly totalitarian political systems have proved throughout history to be
capable of fostering and maintaining inequalities. But the model we are defending is a democratic one. The existence of extreme inequality in the Soviet Union cannot be taken as evidence that such inequality would continue under democratization.35

The equalizing tendency of political democracy is reflected even in a society such as the United States where large fortunes do not contradict the prevailing ideology, and huge salaries are commonly accepted as essential to good management. Even in this society the salaries of top public officials are far from sufficient to allow large-scale accumulation of wealth. Politicians do not become rich by saving large fractions of their salaries, but by dabbling, legally or illegally, in the "free-enterprise" system. Even if democracy under socialism should express the will of the people no more effectively than it does under capitalism, it should be sufficient to check excessive accumulation by political figures.

Unemployment, the second fundamental problem of capitalism, has already been discussed in detail. Laissez-faire, as Keynes has shown, has no effective mechanism for insuring full-employment. Welfare-state capitalism has overcome the theoretical difficulty, but in practice its options are more restricted than are those of socialism. Not only is the government circumscribed in its ability to engage in productive investment and drawn toward non-productive channels,
but unemployment itself serves the interests of capital, providing both flexibility and labor discipline.

Under worker-controlled socialism there exists no class with a specific, enduring interest in maintaining unemployment. Unemployment does not generate downward pressure on wages, for there are no wage laborers. The threat of unemployment cannot shift power from workers in a factory to the owners, since no class, distinct from the workers in the factory, can exercise this threat. The working class as a whole must provide for the material needs of unemployed persons (through their taxes), just as they do under welfare-state capitalism, so they have no interest whatsoever in maintaining an "industrial reserve army." And there is no other class which stands to benefit substantially from unemployment.\(^{36}\)

It does not follow that unemployment would never be a problem in a society based on our model. Without a class to specifically profit from unemployment, there is little likelihood that an unemployment increase would ever be deliberately induced by the government. (Many capitalist "anti-inflationary" measures are designed to have such an effect.) However, insofar as our model is a market economy, it does not automatically insure full employment, nor is it immune from all recessionary impulses. When such difficulties arise, however, our model has open to it all the options available to welfare state capitalism, and several
which go beyond what is generally permissible in such a system: workers can be set up to engage directly in commodity-producing enterprises which compete with existing concerns,\(^{37}\) for example, or the workday can be shortened to increase employment opportunities.\(^{38}\) Thus on balance our model would seem to have a stronger claim to utilitarian optimality than does either form of capitalism we have discussed.

A worker-controlled firm, like its capitalist counterpart, has a decided interest in maintaining demand for its product. Thus it has a motive for engaging in non-rational sales persuasion. A non-optimal situation could thus develop—though there are reasons for thinking that the problem would not likely become acute. Size limitations on firms restrict the funds available for large-scale advertising campaigns. In addition, the intensity of the motive to increase demand would seem to be decidedly less, since productive capacity cannot be expanded by opening new firms in new locations (new investments being in the hands of the state, and control of new firms in the hands of the workers who operate them), and since the limited gains must be divided among all workers.

If non-rational persuasion should become a problem, legislative remedies are available, as they are under capitalism. In fact, they should be more readily available, because, as we shall see in the next chapter, capitalism
possesses a growth imperative that our model does not. Hence, strictures against advertising, if they have the effect of decreasing demand, risk provoking serious economic disruption under capitalism. If a decline in demand is not so disruptive—and this is precisely the case in our model of socialism—then legislative remedies against advertising abuses are more likely to be effective. Thus, the problem of "sales effort" would seem less likely to become serious in the first place under worker-controlled socialism, and more readily counteracted if it does.

Capitalism's low probability of carrying out an optimal workplace organization, balancing efficiency, job satisfaction and leisure, is the difficulty our model is most explicitly designed to solve. Under capitalism labor-power is a commodity, a cost of production. Organizational decisions are made with a view to minimizing labor costs as well as non-labor ones. This procedure leads, as we have seen, to a radical subdivision of the labor process and the replacement of skilled workers by unskilled.

A worker-controlled reorganization proceeds differently, because the "profit" to be maximized is the difference between total revenue and non-labor costs. Average workers have an interest in preventing any particular class of specialists from becoming so indispensable that they can demand substantially higher shares. (More correctly, they can be expected to resist if more highly skilled workers begin
insisting on differential treatment.) But they have as well a clear interest in raising the average skill level as high as possible, both to make the work as satisfying as possible and to counter arguments of the highly skilled for preferential treatment. They have none whatsoever in turning workers into automatons. 39

It cannot be concluded, of course, that worker-control resolves once and for all the problem of workplace alienation. Tension will no doubt exist within a given organization, especially at the inception of worker-control, between factions favoring a hierarchical, capitalist-style "efficient" organization, and those more concerned with making their jobs more satisfying. It seems, however, that a democratic resolution to this conflict has the best claim to utilitarian-optimality—since it will express the will of the majority, and allow as well for revision and experimentation. Worker-control would thus seem to be a necessary if not sufficient condition for a genuine solution. But that alone makes it preferable on utilitarian grounds.

This concludes our analysis of the utilitarian static-case defense of capitalism. We have tried to show that there are good reasons for believing that a worker-controlled socialism is economically viable, and that it is distinctly superior to capitalism in four essential areas of utilitarian concern. We must now turn our attention to the argument that to focus on the static case is to miss the essential
case for capitalism, that it is not capitalism as a just distributor of wealth or job satisfaction that is decisive, but capitalism as a dynamic, innovative engine of progress. It is here, so the argument goes, that the utilitarian case for capitalism is most favorable.

Let us proceed with the final stage of our analysis.
Notes

1. The opposite of a "market economy" is a "command economy," where a central agency makes the allocative and distributive decisions. A market may be "perfectly competitive," or, in the presence of monopolistic elements, "imperfectly competitive." The differences between perfect and imperfect are relevant to the debate between laissez-faire and welfare-state capitalism, but not to our inquiry. (The classic works in the theory of imperfect competition are Joan Robinson's Economics of Imperfect Competition (1933) and E. H. Chamberlin's Monopolistic Competition (1932).)

2. The rights, for example, to privately own productive assets, to buy and sell them on the market, to hire and fire laborers and to organize and reorganize one's "own" workplace.


4. It is not essential that the capitalist keep all the profit, but it is important that he keep a percentage of it. What that percentage should be, and whether it should be tied to income levels are questions of vital interest to those engaged in the conservative-liberal debate, but not to us. Our contention, argued earlier, is that property-income, whatever the percent, is non-optimal.

5. Progressive taxation is probably preferable on utilitarian or Rawlsian grounds to a fixed-percent taxation, but the case is not clear-cut. As conservatives are fond of pointing out, progressive taxation, in interfering with distribution, also affects allocation of resources and in some cases leads to inefficiency. Cf. Hayek, The Constitution of Liberty, Chapter Twenty.


Legacy of Inflation (Tonbridge, Kent, 1972) for an extended critique of full-employment policies.

11. The individuals who happen to be unemployed does not need to engage in such activities directly, but the labor force must shift appropriately. A factory worker may shift to construction, thus creating a job opening for the unemployed person.

12. The General Theory of Employment, Interest and Money, p. 129. Keynes' point: in a capitalist recession, where unemployed people confront idle plants, even burying bottles is better than nothing, for it creates a demand for consumer goods which invokes an increase in production, more wages, more demand, etc.

13. Ordinarily such is the case. In exceptional circumstances the government has intervened directly to either prolong or shorten the working day, but such cases need not concern us here.

14. That similar phenomena appear in contemporary socialist countries is not to be denied, but this fact is not germane to our argument at this point.

15. We are assuming here that the capitalist class, though numerically small, is a major political force. We do not need to assume that it always has its interests served by the state, only that they not infrequently are.


17. This assumption is quite in accord with utilitarian and Rawlsian perspectives. Mill writes, for example: "Capacity for the nobler feelings is in most natures a very tender plant, easily killed, not only by hostile influences, but by mere want of sustenance, and, in the majority of young persons, it speedily dies away if the occupations to which their position in life has devoted them and the society into which it has thrown them, are not favorable to keeping that higher capacity in exercise." "Utilitarianism," p. 253. Rawls remarks, in his analysis of envy: "It is clear that, although it is a psychological state, social institutions are a basic instigating cause." (p. 536)


19. Our model is socialist, since it does not recognize
(extensive) private ownership of means of production. We make no claim to decisive originality concerning this model, though certain details, particularly in the investment sector, are perhaps new. Economic models of worker-controlled socialism have been discussed with some frequency during the past twenty years. The first formal model seems to have been Benjamin Ward's, presented in a 1958 article, "Market Syndicalism," American Economic Review, 48, 566-89. This model, slightly revised and considerably expanded, is one of the three major models discussed in Benjamin Ward, The Socialist Economy (New York, 1967).

The major American theoretician of the economics of worker-controlled socialism is Jaroslav Vanek, whose The General Theory of Labor-Managed Economies (Ithaca, 1970) is an extensive analysis of a worker-control model in terms of the standard categories of neoclassical economics. A more readable account is his companion piece, The Participatory Economy (Ithaca, 1971).

In this presentation we will avoid the neoclassical categories and attempt a straightforward, commonsensical analysis. We will not make as many oversimplifications as Vanek and Ward, for we are not aiming for mathematical theorems.

20. We will not analyze this sector here, though it will no doubt be an important (and growing) sector of the economy. On the one hand, certain problems here are not unique to socialism, but endemic to any social welfare system. On the other, the characteristics of the service industries will reflect in important respects the productive enterprises we will discuss. The governmental sector in our model will also be worker-controlled to a major degree, though it differs decisively from the other sector in that enterprises will have to negotiate directly with the state for wages. The optimality question here is difficult to analyze in the abstract, though it does not seem to raise any insoluble problems of principle.

21. Obviously not every decision need be made by the entire body of workers. A special council or general manager would no doubt be empowered to make certain kinds of decisions. But these officials are elected by the workers in the enterprise; they are not appointed by the state or elected by the community at large.

22. "Profit" here should not be confused with the capitalist's "profit," the difference between total sales and total costs including labor costs. Socialist production does not view labor as a "cost," as a "factor of production" formally indistinguishable from land, capital, etc. as does capitalist production. The economic organization reflects this conceptual distinction.
Avoided is the phenomenon, so noticeable in Eastern European economies that are planned via physical quotas, of a plethora of products consumers do not really want. Cf. Ota Šik, Plan and Market Under Socialism (Prague, 1967), p. 89n. Whether the opposite phenomenon—the tendency to manipulate consumer decisions—will necessarily arise will be discussed below.

Designing the optimal tax structure is a matter of controversy and complexity. Little of the existing literature is directly applicable to our model, given its peculiar features. It seems unlikely, however, that Pareto-optimality distortions, which are probably inevitable in any tax structure, would seriously undermine our argument. Inefficiencies might well develop, but it should be recognized that even an economy as grotesquely inefficient, both in theory and practice, as that of the Soviet Union, or as flagrantly wasteful as that of the United States, is capable of providing an adequate material standard of living for its populace. Material inefficiencies, though undesirable, are not really so crucial in evaluating alternative economic systems from a utilitarian or Rawlsian perspective as are the problems of inequality, consumer manipulation and workplace alienation.

The notion of "efficiency" here has little ethical import in a capitalist society where the structure of demand reflects a non-optimal distribution of wealth. Nonetheless, the problem of labor allocation must be solved under socialism. Basic long-range decisions should be made politically, via the democratic process, but short-term fluctuations in demand are extraordinarily difficult to handle that way. (In Czechoslovakia, Šik observes, there are 1.5 million prices that must be determined. To attempt a political solution invites bureaucratization. Op. cit., p. 262)

Cf. Ward, The Socialist Economy, p. 190, for a technical discussion of this point. Ward proves a theorem which cannot but give one pause: under certain circumstances, "a change in price to the competitive Illyrium firm leads to a change in output in the opposite direction." Cf. also p. 195 ff.

We assume here a commitment to full-employment. Not only has this traditionally been a socialist commitment, but in a socialist society such as the one we are discussing there exists no class of people with a definite interest in maintaining significant levels of unemployment. See p. 162 ff. for a further discussion of this point.

"New" investment is that financed by economic surplus,
not that paid for out of depreciation funds. Firms have complete control over the latter. Whether or not (and how much) new investment should also be allowed firms from their own revenues is a matter difficult to settle abstractly. In our model we will assume that no new investment is allowed without the approval of the planning board.

Given our society's commitment to factory democracy, some sort of size limitation on firms seems reasonable. What that should be and how much "inefficiency" this might generate cannot be answered abstractly.

There are good reasons for believing that this reaction would be more likely than that of some workers ganging up on others, particularly if this latter reaction was generally thought to be anti-social. In any event, the more benevolent action would seem more likely than under most forms of capitalism.

Rawls, p. 274. Nozick raises a related but distinct objection: "Since a system of syndicalist factories would involve great inequalities of income among workers in different factories (with different amounts of capital and different profitability), it is difficult to see why people who favor certain equalitarian end-state patterns think this a suitable realization of their vision." Op. cit., p. 251. This objection, however, does not apply to our model. The tax on assets, the mobility of labor, and the state control of new investments all work to mitigate the types of inequalities he suggests.

McDonald's hamburger king, Ray Kroc, ranked among the five richest men in America, is said to be worth over $600 million. Leading the list is Daniel Keith Ludwig (shipping and real estate) with $3 billion. (Newsweek, 2 August 1976, p. 56 ff.)

One might want money so as to be able to exert political influence, but there would seem to be no reason to expect such inclinations to be more intense under democratic socialism. The point is, major incentives to accumulation, which are quite legitimate under capitalism, would not exist.


The secrecy shrouding many of the institutions of privilege and the decided lack of conspicuous consumption suggests an uneasiness on the part of the ruling elite.
Consider the joke current among Moscow intellectuals:
"Brezhnev wanted to impress his mother with how well he had done, and decided to invite her up to Moscow from their home in Dneprodzerzhinsk in the Ukraine. He showed her through his ample intown apartment, but she was nonplussed, even a little ill at ease. So he called the Kremlin, ordered his Zil, and they sped out to his dacha near Usovo, one used previously by Stalin and Khrushchev. He took her all around, showed her each room and the handsome grounds, but still she said nothing. So he called for his personal helicopter and flew her to his hunting lodge at Zavidovo. There he escorted her to the banquet room, grandly displaying the big fireplace, his guns, the whole bit, and unable to restrain himself any longer, he asked pleadingly, 'Tell me, Mama, what do you think?'
'Well,' she hesitated, 'It's good, Leonid. But what if the Reds come back?' "Ibid., p. 46."

36 Government planners might conceivably, on occasion, opt for fiscal measures designed to increase unemployment temporarily—to release workers, perhaps, for employment in newly planned projects—but it is scarcely conceivable that such policies would ever be regarded as a major policy tool. Deflationary fiscal policies work reasonably well in holding down wages (a major concern of capitalists) but they are hardly selective enough to guarantee that particular skills will be available for particular projects.

37 This, as we shall see in the next chapter, is regularly done in our model, and not just in recessionary times.

38 These issues were discussed in some detail during our analysis of inflation, p. 143 ff.

39 We assume here that human beings generally prefer skilled work to unskilled. This assumption would seem to be shared by both Mill and Rawls. Mill, in defending his famous proposition, "Better to be a human being dissatisfied than a pig satisfied," argues that "human beings have faculties more elevated than animal appetites, and when once made conscious of them, do not regard any thing as happiness which does not involve their gratification." ("Utilitarianism," p. 251.) Rawls presents the following as the basic principle of human motivation: "Other things equal, human beings enjoy the exercise of their realized capacities (their innate or trained abilities), and this enjoyment increases the more its capacity is realized, or the greater its complexity." (p. 426)
Our critique of capitalism thus far has presupposed a fixed technology. We have argued that in this "static" case a capitalist economy tends to generate a distribution of wealth, a system of wants and needs, a structure of unemployment, and a set of workplace organizations that are utilitarian non-optimal.

We will now drop the fixed technology assumption and consider the relationship between capitalism and innovative growth. It is essential that we do this to forestall the argument that the benefits of capitalist growth well outweigh the disutilities we have uncovered in the static case. Schumpeter, for one, seems inclined to such a view.

We will consider the claim that capitalism induces growth more nearly utilitarian-optimal than does worker-controlled socialism. This is a somewhat more modest claim than the contention that capitalist growth is so much superior to socialist growth that it more than compensates for the advantages of socialism already elaborated. If this modest claim proves false, then so of course would the stronger.

Can it be proven that the investments of capitalist
entrepreneurs necessarily yield optimal growth? Dobb, among others, finds such a suggestion incredible: "Only myopic concentration upon stationary equilibrium could breed the supposition that there is even a prima facie case for regarding long-term investments under free-market conditions as optimal."³

If one is looking for a demonstration analogous to the optimality proofs for static equilibrium, then Dobb's assessment is surely correct. One can give a proof, of course, if one makes enough assumptions, but these assumptions are not even remotely realistic, even by the loose standards of realism associated with optimality proofs.⁴ And even with such assumptions the optimality demonstrated is merely Pareto optimality, not utilitarian or Rawlsian.

It is not fair, though, to expect a mathematically rigorous demonstration of optimality. None is possible for capitalist or socialist growth. The relevant question is which system is more likely to approach optimal growth.

As a response to this question, Dobb's remark is perhaps hyperbolic, for there does seem to be a prima facie case for capitalism. The appeal is to empirical data rather than to theoretical constructs: just look at the accomplishments of capitalism. Even Marx was impressed.⁵ Monsen puts the case succinctly:

Judged solely by [economic] standards, it would seem that history has already awarded the contemporary rivalry to private capitalist enterprise. In all
the statistical rankings of nations according to their accumulated wealth or per capita income, those which have fostered capitalism occupy the top positions on the list.\textsuperscript{6}

Now empirical arguments, particularly in this area, must be approached cautiously. Quite apart from questions of statistical reliability and choices of indicators (why per capita income, rather than rate of growth? for example), the danger of arguing \textit{post hoc ergo propter hoc} is ever present. Temporal juxtaposition may be adequate to establish a \textit{prima facie} connection between the institutions of capitalism and observed growth, but clearly more than that is needed for a serious utilitarian justification. A \textit{causal} connection must be elaborated. (Temporal juxtaposition, after all, also establishes a \textit{prima facie} connection between capitalism and slave-trading, imperialism and the most devastating wars known to humanity. Defenders of capitalism would presumably deny the \textit{causal} connection.)

The causal mechanisms are surely no mystery. Advocates of capitalism are quick to point out that capitalism encourages innovation. It gives free reign to that "entrepreneurial spirit" which seeks out and transforms into reality new ideas for products and technologies. It provides, via competitive pressure and the promise of great gain, a continual stimulus to innovative growth.

Yes, surely competition and the lure of wealth are the mechanisms. But are the results of their employment optimal? That is the question which must be answered. It is
one thing to assert that capitalist growth is likely to be utilitarian-optimal; it is quite another to prove it.

Before considering the pro-capitalist arguments, let us examine the major arguments against the proposition that capitalism promotes optimal growth. These fall into three categories, those which question the kind of growth generated by capitalism, those which object to the rate, and those which are concerned with the stability of the process. We will examine each of these categories. While doing so, we will develop the details of that feature of our model which we neglected in the last chapter, namely, governmental control of investment. This will allow us to compare our model with capitalism. Toward the end of the chapter we will return to the claim that capitalism fosters maximal individual initiative—the cornerstone of the argument that "free enterprise" yields optimal growth—and then conclude with some remarks on capitalism and freedom, and on socialism and the "withering away" of the state.

What Kind of Growth?

Objections to the kind of growth, to the specific products and technologies developed under capitalism, are not unfamiliar. Liberal economists have long recognized the deviation from optimality caused by "externalities of production"—effects of a production process on people not directly involved in the economic transaction. Environmental effects are frequently cited. The cost to the
community of smog, for example, is not reflected in the free-market price of commodities produced by a highly polluting technology. Given a choice between two equally costly (to produce and install) technologies, one of which pollutes much more than the other, the entrepreneur has no immediate economic incentive to choose the less polluting one. Thus the market fails to encourage the development of low-polluting technologies or to discourage the development of high-polluting ones. As a consequence, technologies evolve in a non-optimal manner.

Consumption externalities are even more relevant to the capitalism-socialism debate than production externalities, for the latter are at least partially amenable to liberal reform. Consumption externalities are considerably more problematic.

A basic assumption of neoclassical economics is that an individual's consumption is a private matter affecting only himself. This, of course, is manifestly untrue in a large number of cases. The decision of my neighbor to buy beer in disposable bottles has consequences which affect me: a rise in litter, a decline in the natural resources available to my children, a rise (eventually) in the cost of municipal waste disposal. The private decisions of separate individuals to buy automobiles instead of horse carriages changed the physical and social structure of the United States, for those who purchased them and for those who did not.
At issue here is something other than unforeseen consequences (a difficulty from which no social system can be immune.) The effects of disposable bottles—and of private automobiles—were neither unforeseeable or unforeseen. The fact to which we are calling attention is that under capitalism the people affected by investment decisions have no direct voice in making those decisions. In most cases they are not even aware of the decisions until long after they have been made.

Once the decisions have been made and the effects felt, people can, of course, take political action. But even when such action is feasible, the structure of the situation, from a utilitarian perspective, is significantly different, once the decisions have solidified in brick and mortar, and have engaged the livelihoods of thousands. Bottle companies can rightly point to the disutility involved in reconverting their plants, in laying off workers, in rupturing old habits—considerations which do not apply when people are consulted collectively beforehand.

Individual action, as opposed to political response, is even less effective. Indeed, as Sen's "Isolation Paradox" demonstrates, the logic of a collective decision is quite different from that of an individual one. When confronted as an individual consumer with the option of buying an eight-pack of beer in disposable bottles, I might well decide that the convenience is worth the disutility—the
effect on the environment of eight more bottles. Confronted with the same choice in a political context, I might decide, without any inconsistency, that the convenience of disposable bottles is not worth the disutility, for the option now is a society without any disposable bottles.

It follows that a society of quite rational people, all of whom prefer a litter-free environment to the convenience of disposable bottles, could find themselves inundated with bottles nonetheless—if they allow the market solution, the unplanned outcome of free individual choices, to work itself out. Such a solution, in this context at least, is clearly non-optimal.

It is an obvious truth, actually, that the question, "Should X be produced?" might be answered differently, depending on whether it is put before the collective for a vote or left to individuals to decide privately. The political solution readily allows for complete prohibition, while the market solution rarely does, since a minority preference also creates a market demand. Sen's paradox adds an additional wrinkle by showing that it might be the case that nobody, not even a small minority, prefers the production of X to its ban, and yet the market would supply X to everyone.

As the above case demonstrates, the market solution is not always preferable, from a utilitarian point of view, to the political one. In other circumstances, however,
particularly when consumption does not affect non-consumers, the case for the market is much stronger. If I grow more wheat than I need and wish to exchange the surplus for my neighbor's grapes, there would seem to be nothing to be gained by society's intervention, and something to lose: the majority might decide, not caring for grapes themselves, to prohibit their production.

It might seem to follow that the case for worker-controlled socialism depends on the relative prevalence and seriousness of consumption externalities. This, we shall see, is essentially correct, though the relevant relation is not, as might be supposed, the percentage of products which involve consumption externalities. This is because the choice between capitalist and socialist structures is not the choice between letting voters decide on production and letting the market decide.

To make this clear, we must elaborate certain aspects of our worker-control model that have not yet been dealt with, namely those pertaining to the disbursement of investment funds. We begin by noting that it is not true that a worker-controlled society would provide for a popular vote on every new investment project. The number of projects might make such a procedure unworkable, but more importantly such a procedure would negate a major benefit of socialized investment—the conscious adoption of a coordinated, coherent investment plan.
Instead, the procedure we propose would be something like this: A certain quantity of (tax-collected) funds are available to a region (a community, a state, the nation as a whole) to finance new investments. A general plan is drawn up by a planning board (whose members are either elected directly or appointed by elected officials) which indicate the general lines of desired development: X% of the budget should go to developing new energy sources, Y% to new housing, Z% to expanding the production of personal consumer goods, etc.

People then come forward, individuals or collectives, who want a share of the funds. They present specific proposals, each of which includes evidence that the project is economically viable (market surveys, cost analyses, profit projections) and an explanation of its role in the comprehensive plan. These proposals are publicized, and public hearings held to debate their merits. If certain projects are particularly controversial and involve the commitment of large quantities of resources, then a majority opinion will be ascertained, either by survey or referendum. The planning committee then makes a final selection, and presents a coordinated plan to the legislative body, which either adopts it or sends it back for revision.

There are several points to be made about this arrangement. "Tyranny of the majority," though potentially a problem for any democratic arrangement, does not appear as stark
a threat as might have been suggested by our earlier dis-
cussion, where the alternatives were presented as majority
vote or market resolution. If there is a significant de-
mand for a particular product, even if by only a small min-
ority of people, then a proposal to meet that demand will
appear economically attractive, and will thus present a
good **prima facie** case for funding. Unless the proposal re-
quires a very large commitment of resources, no regional
vote is taken, though people who do object—presumably be-
cause they feel that consumption externalities are involved
— are provided with a forum to make their case. But unless
they can do so convincingly, the project will be funded.

Now the control over investment funds gives consid-
able power to the planning board, though by no means total
control over the economic life of the populace. The plan
is for **new** investments, and not for the whole economy.
Enterprises already in existence are largely free, as we
have detailed in the preceding chapter, to determine their
own production.¹² The community can pass regulatory legis-
lation, but it does not dictate policy to individual firms.

On the other hand, the political community does have a
decisive voice in determining the direction of major econ-
omic change, since this comes about, by and large, through
investments of considerable magnitude. And it exercises this
control **before** the actual commitment of laborers and resour-
ces. Mistakes, of course, might be made, and **post facto**
corrections required, as in any society, but with this structure undesirable foreseeable consequences should be considerably reduced.

The advantages of this structure in dealing with externalities of production and consumption, relative to a capitalist structure can be summarized briefly. The socialist structure preserves the advantages of the market in certain respects. Small scale experimentation and the production of goods and services the consumption of which affect only the consumer are likely to be funded primarily on the basis of projected profitability, the same criterion which determines capitalist investment. On the other hand, large scale expenditures—the expansion of a successful experiment or the channelling of social development in a specific direction—are likely to be scrutinized carefully for their social consequences, and this before the projects are actually undertaken. Thus externalities can be identified and taken into account in the formation of the plan.

Capitalist development, by comparison, is much more vulnerable to externality disutility. Regulatory agencies and post facto political action are the principal remedies. Now these may be sufficient. If the problems are neither widespread nor severe, then the socialist planning mechanism loses an important part of its appeal, and its major disadvantage—the maintenance of the bureaucratic planning machinery—seems less justifiable. It is in this sense that
the desirability of the socialist mechanism described here depends on the relative prevalence and severity of externalities. It does not depend on the ratio of the products which involve externalities to those which do not, but on the level of disutility generated by those that do.

Planned investment exhibits an important advantage, over and above its facility in coping with externalities, which is widely recognized by radical and liberal economists alike: if investment projects are not coordinated, then growth will not be balanced, in which case potential profitability will not reflect social desirability, and hence market growth will be non-optimal. The Marxist Dobb quotes the liberal Scitovsky:

Only if expansion in the . . . industries were integrated and planned together would the profitability of investment in each of them be a reliable index of its social desirability. . . . Complete integration of all industries would be necessary to eliminate all divergence between private profit and public benefit [due to 'pecuniary external economies'].

Scitovsky's argument is easy to illustrate. Suppose, at given market prices, new housing looks maximally profitable. Investment funds flow into this area, creating a sharp increase in the demand for building materials, and consequently a rise in their prices. Housing thus begins to look less profitable, and so some construction is halted, investment funds shifting toward the building materials industries. This clearly involves a degree of waste and inefficiency which could have been avoided had coordinated
investment channelled funds simultaneously into housing and the materials industries.

Projected profitability, in the above example, overstates the economic desirability of a particular kind of investment. In other cases it understates it. In either case, deviations from Pareto-optimality (and hence from utilitarian-optimality) occur which are due not to the random acts of nature and unpredictable changes in consumer preferences ("primary uncertainty") but to the lack of communication among decision makers ("secondary uncertainty"). Such deviations can be eliminated only by comprehensive, coordinated planning.

This defect can be (and is) mitigated somewhat in welfare-state capitalism by governmental coordinating agencies which collect and disseminate information, and also by the integration of interdependent industries into single corporations. This latter movement, with its tendency toward oligopoly, scarcely represents a utilitarian-optimal response. The former is hampered by the separation, under capitalism, of public and private sectors. If a decision is made to locate a plant in a particular area, then investments should be made not only in the raw materials industries serving the plant, but in housing for the workers, if it is not already available, in power and sewage facilities, etc.

The market mechanism sometimes produces these results. If a capitalist decides to locate a plant in a particular
region, and if the facility returns enough of its revenue to its employees to generate a demand for housing, then housing eventually develops. If the tax base is increased sufficiently, then an increase of social services may follow. Such a pattern may unfold, but not necessarily. Sometimes industries move into an area attracting workers in increasing quantities. Slums and substandard conditions result, prompting the industries to leave. Wastelands, the American inner cities for example, are left in their wake.¹⁵

Capitalism thus founders on the unlikelihood of balanced growth and on externalities of production and consumption. Each of these factors tends to generate investment projects that are less than optimal from a utilitarian point of view. So does yet another factor, a familiar one already encountered in our static analysis. As Scitovsky noted, balanced growth is a necessary condition for profitability to reflect social desireability. Even more so is an equitable distribution of wealth. Projected profitability is based on a survey of dollar votes. The more command over consumer goods deviates from equity, the less likely it is that the kind of growth stimulated by profit expectations will be optimal.

This argument exhibits a curious circularity. Since "equity" for us means utilitarian optimality, we seem to be arguing that if wealth distribution is non-optimal, then growth will be non-optimal. But a criterion for the
optimality of the distribution of wealth is that it promotes optimal growth. Thus we won't know whether the distribution is optimal until we know whether growth is optimal, but we won't know that growth is optimal until we have established that the distribution is optimal.

The circle can be broken if we descend to a lower level of abstraction. In particular, we must observe the distinction between kind of growth and rate of growth. Clearly there is a prima facie case that capitalist investment is non-utilitarian optimal: resources are channelled into the construction of yachts, luxury apartments and private mansions even though many people are hungry and living in slums. The kind of investment seems highly problematic. At attempt at justification can be made, however, by appealing to the rate of growth. It is not implausible to argue that the high rate of growth induced by the lure of great private gain more than compensates for the prima facie distortions away from optimal kinds of investments. This line of reasoning is explicitly advanced by Hayek:

The rapid economic advance that we have come to expect seems in a large measure to be the result of this inequality and to be impossible without it. Progress at such a fast rate cannot proceed in a uniform front but must take place in echelon fashion, with some far ahead of the rest...

In a progressive society as we know it, the comparatively wealthy are thus merely somewhat ahead of the rest in the material advantages which they enjoy. They are already living in a phase of evolution that others have not yet reached. Poverty has, in consequence, become a relative, rather than an absolute concept.
In order for a planned society to achieve the same rate of advance as a free society, the degree of inequality that would have to prevail would not be very different.\textsuperscript{16}

We will argue in the following section that the rate of growth under capitalism is \textit{not} (likely to be) utilitarian optimal. If this contention is valid, then the justification for property income suggested above fails, and with it the argument that the \textit{kind} of growth promoted by capitalist profit-maximization is, in the long run, utilitarian optimal.

How Fast to Grow?

One of the arguments considered in the preceding section can also be interpreted as an objection to the rate of growth under capitalism. Given a certain quantity of investment funds, maximally efficient growth is balanced growth, and this is most likely to be achieved when investments are coordinated. Another objection, however, is much more fundamental. It centers on the fact that the rate of growth under capitalism is not the outcome of a democratic decision procedure.

No society, of course, can determine \textit{a priori} exactly how fast it will grow, for growth depends significantly on primary uncertainty, on the kind and rate of technological innovation, in particular. It can, however, make decisions which affect the growth rate in important ways. It can decide, for example, what percent of the material means is going to be devoted to research and development, and to the
establishment of new production facilities. In real terms, this is the allocation of a certain portion of the labor force and a certain portion of non-human resources to the production of things which are not for immediate consumption. This allocation involves a trade-off, a sacrifice of either consumer goods or leisure now, so as to have more at a later date.

Under capitalism this vitally important allocation is not decided by those affected by it, namely the populace at large. Under capitalism, the rate of investment is the unplanned outcome of the individual decisions of those who have something to invest. How much they have to invest depends essentially on the distribution of income between capital and labor. How this division is determined is a matter of considerable controversy, but that controversy need not concern us here, since no one maintains that the rate of investment is determined democratically, as it would be in our model of worker-controlled socialism. In our model, investment funds are generated by taxation, and so the rate would have to be determined either directly by referendum or indirectly by the legislative assembly.

Keynes' description of pre-WWI capitalism illustrates our point and a classic defense of capitalism as well:

The immense accumulations of fixed capital which, to the great benefit of mankind, were built up during the half century before the war, could never have come about in a Society where wealth was divided equitably. The railways of the world, which that
age built as a monument to posterity, were, not less than the Pyramids of Egypt, the work of labor which was not free to consume in immediate enjoyment the full equivalent of its efforts.

Thus this remarkable system depended for its growth on a double bluff or deception. On the one hand the laboring classes accepted from ignorance or powerlessness, or were compelled, persuaded or cajoled by custom, convention, authority and the well-established order of Society into accepting a situation in which they could call their own very little of the cake that they and Nature and the capitalists were cooperating to produce. And on the other hand the capitalist classes were allowed to call the best part of the cake theirs and were theoretically free to consume it, on the tacit underlying condition that they consumed very little of it in practice. The duty of "saving" became nine-tenths of virtue and the growth of the cake the object of true religion. . . .19

This account clearly acknowledges the non-democratic character of capitalist growth, but it suggests as well a countervailing consideration which is made more explicit in the next paragraph:

The cake was really very small in proportion to the appetites of consumption, and no one, if it were shared all round, would be much better off by the cutting of it. Society was not working for the small pleasures of today but for the future security and improvement of the race,—in fact for "progress."20

What we have here is a utilitarian defense of a non-democratic procedure which is analogous to the usual defense of Stalin's forced industrialization: the people, if allowed to choose, would not do what is in their own best (long term) interest. A utilitarian must, of course, take such arguments seriously, for though he has a general commitment to democracy,21 this commitment is not absolute. He
must carefully consider the specific historical conditions which might have justified the non-democratic process.

The specific condition cited by Keynes, the one commonly cited in such arguments, is the "smallness of the cake," and hence, the painfulness of the decision to defer consumption—precisely the condition which is absent in advanced industrial societies. If the cake is quite large, and deferring consumption is neither excruciatingly painful nor overwhelmingly important, there seems to be little justification for allowing the rate of investment to be determined by the propensity of a small class of people to reinvest a certain portion of their income. Society at large might well prefer to invest less—or even more—than what is spontaneously generated by private investment decisions.  

If the democratic procedure is more likely to yield the optimal investment rate, then the disutility of capitalism will be more pronounced the more its investment rate deviates from the socialist one. This fact might be cited in defense of capitalism. It might be maintained that although in theory the socialist rate is preferable, in practice the capitalist rate will be much the same. To evaluate this claim, let us examine the motivational forces facing the decision-makers in each system respectively: these turn out to be rather different.

Under capitalism, as Keynes observed, "the growth of the cake [becomes] the object of true religion." Reasons
for this are not hard to find. In a capitalist climate, defensive and offensive considerations combine to make growth imperative. The profit of a firm (or at least a large share of it) must be reinvested for self-preservation, for size enhances its ability to act aggressively against competitors and to resist their threatening moves. Moreover, investment is scarcely a painful necessity to the individual capitalist. Investment increases one's real wealth, and with it one's power and prestige. Consumption has its rewards, of course, but so does investment, all the more so since it does not foreclose consumption, but merely—if all goes well and if it is really desired—postpones it.

A very different incentive structure faces the citizens of a worker-controlled economy when they vote on the rate of investment taxes. A vote to increase the investment rate is a vote to decrease present consumption (since taxes will rise) so as to provide funds for projects which will eventually enhance the quality of life for oneself as an individual (since some of these funds will go to increasing the quantity and quality of consumer goods) and as member of the community (since some of the research and development will relate to the provision of public goods). One's power and prestige vis-à-vis other members of the community will not be enhanced, although that of the community as a whole will be. The competitive relationship between firms, which exists under worker-controlled socialism, does not enter
systematically as a motivation, since a decision to increase investment does not guarantee that the new funds will go to one's own firm. Some might, but some might also go to one's competitors. In no case, however, is one's livelihood grievously threatened, since size limitations on firms (as described in the last chapter) block the takeover or destruction of one firm by another.  

A vote to decrease investments is essentially a vote to increase leisure, though at the cost of decreasing the funding of research and development which might provide more goods or leisure later.

The increase in leisure is felt immediately in those sectors of the economy (the construction industry, for example) dependent on demand generated by new investments. These firms must cut back production, and thus decrease the length of the working day (or week or year or whatever is democratically decided by the firm). If the decline in income is too severe to be compensated for by the increased leisure, some workers will seek employment elsewhere—in those firms not immediately affected. The workers in these latter firms, their own income having just increased as a result of the tax cut, are thus in a position (and under pressure) to take on these workers, with the result that workload per person declines in these industries.

The dislocation and movement of workers here is similar to what occurs when capitalists, for whatever reasons,
decrease investment. The socialist response compares favorably on two counts. The investment decline is a democratic decision, well publicized, and thus capable of being planned for by the firms likely to be affected. (Retiring workers, for example, would not be replaced.) Secondly, as we have mentioned previously, the normal response of a worker-controlled firm, when faced with a reduction in demand, is to decrease the working hours for everyone, rather than, as is the usual capitalist response, to simply lay off a part of the force.

Our analysis of motivational factors shows capitalism to be strongly inclined to a high rate of investment, and consequently, to a high rate of growth. This inclination is largely independent of the perceived needs, desires or wishes of the general populace, arising as it does from competitive pressure and the desire to make money with one's money. The socialist system appears considerably more flexible, particularly since the option of increased leisure is more immediately available.

So long as a high growth rate is genuinely desirable from a utilitarian point of view, the deviation of capitalist growth from optimality is not likely to be severe. But if the high growth rate becomes problematic—as is being asserted with increasing frequency today—then the deviation becomes more serious. If steady growth is a threat to ecological stability and is rapidly depleting irreplaceable
raw materials, then an economic system that is internally structured to encourage growth becomes increasingly non-optimal.

Let us summarize briefly the argument of this section. In fact there are two, one which attacks the non-democratic character of the capitalist investment-rate decision, and another which emphasizes its potentially disastrous propensity for high growth. If we assume that a democratic decision procedure is generally preferable on utilitarian grounds when the matter to be decided affects all, then there is a prima facie case against the capitalist procedure for determining the rate of investment. Though there might have been overriding considerations at one time, these considerations do not seem to apply today.

Secondly, if it is true that a high rate of growth is utilitarian non-optimal today in an advanced industrial country, then capitalism, which is structured to promote growth, is likewise non-optimal.

Instability

The arguments of the preceding section suffice to demonstrate, I believe, that growth resulting from our socialist structure is more likely to approach utilitarian optimality than capitalist growth. The severity of the capitalist deviation depends on a number of empirical conditions, one of the most important of which is the desireability of continued growth. The arguments of this section focus on
the question of growth from another angle, primarily on the possibility of continued growth. We will attempt to show that steady growth is a necessary condition for capitalist stability, and yet necessary for this necessary condition is the fulfillment of conditions so improbable that steady growth is highly unlikely. Thus this system is unstable, much more so than worker-controlled socialism, and thus additionally undesirable from a utilitarian point of view.

Instability arguments are commonly and rightly associated with Marx: the "laws of motion" of capitalist development lead the system to self-destruction. Though Marx offers no comprehensive crisis theory, and much less a fully-developed breakdown theory, he does provide numerous suggestions, partial arguments and insights relating to the inherent instability of capitalism.26

Non-Marxist economic theory, on the other hand, virtually ignored the crisis question until the Great Depression and Keynes forced a reconsideration of the neoclassical categories and arguments. Keynes, for his part, dealt only with the short-term problem, but the Keynesian Roy Harrod took up the question of long-range stability shortly thereafter.27 Harrod's instability arguments produced a debate which still continues to the present, pitting neo-Marxists, neo-Keynesians and neo-Ricardians against the neoclassicists. Mathematical models have proliferated, with accompanying
stability and instability theorems.  

Models are indispensable for analyzing long-range stability questions. Drastic simplifications must be made to bring the essential elements into focus. Thus we will follow the usual procedure and construct models, relatively simple ones which will be used not to prove instability, but to illustrate the relevant variables, and to demonstrate graphically the macroscopic movements of people, products and resources associated with saving, investment and growth.

A basic point of our inquiry is to observe the necessary conditions for stability. (What we mean by stability and by instability will become clear as we proceed.) One such condition which will be assumed throughout is a constant (or rising) rate of profit. Since Keynes it is a commonplace that healthy capitalism requires investor confidence. If confidence declines, so does investment. This lowers aggregate demand, which in turn provokes layoffs, which reduces demand further, provoking further layoffs, and so on, the familiar downward recessionary spiral. Now the "animal spirits" (Robinson's characterization) of investors are influenced by many variables, one of which certainly is the expected rate of profit. Thus if the system experiences a prolonged period of declining profits, investor confidence will likely be shaken, thus making recessionary instability highly probable.

Declining profits are also destabilizing in another way
more familiar to Marxian thinkers. A decline in profit tends to intensify class antagonisms as individual capitalists, seeking to fend off the decline, try to increase the pace of work, lower wages, and extend the length of the working day. (Class struggle manifests itself variously, of course, depending on the specific structure of the society. In present day America, for example, the latter two approaches become attempts to hold wage gains below the inflation rate and to increase mandatory overtime.)

Such instability is not, of course, a logical consequence of declining profit. It could happen that the decline is so gradual that it does not upset investor confidence or class relations. It could happen that the decline is gradual and uniform, slowly reducing profits to the point where all excess is consumed by the capitalist class, none at all invested. The resulting economy would then be a no-growth stationary state. Such an evolution could happen, though this likelihood seems minimal. Profit rates are not ordinarily uniform, and so a general decline in the average profit rate would likely result in a period of widespread business difficulties, bankruptcies, and economic disruptions, a period of recessionary non-optimality with idle workers confronting idle plants while labor is intensified in others.

It is unlikely that any present capitalist economy could gradually evolve to a stationary state via a gradual decline in the rate of profit, but even if one did so, it
would face a stability problem, though of a different sort than that observed above. To see this, and to clarify our concept of "stationary state," let us begin with a model. Let society be composed of two classes, capitalists who own all the means of production, and workers who are all employed by capitalists. For now we may think of the capitalist class as embodied in a single capitalist. Let $x_i$ represent the total output of the $i$'th production period. (We can think of the production period as a year and its output as some uniform consumer good, say wheat.) Let $w_i$ be the wage bill (in bushels of wheat) for the $i$'th production period, advanced to the workers at the beginning of this period. Let $r$ be the (constant) rate of profit.

A stationary state may be described as follows. The capitalist begins with $x_0$ bushels of wheat. (We are not concerned with the origin of this wheat.) He advances this to his workers. (Thus $x_0 = w_1$.) They return to him $x_1 = (1+r)x_0$ bushels of wheat at the end of the first production period. The capitalist consumes the surplus $rx_0$ bushels, returns $x_0$ to the workers, and the cycle repeats, $x_i$ always equal to $x_1$, $w_i$ always $x_0$.

This case appears to be economically stable: the profit rate is steady. Political instability might well be a problem, however, for here we have modelled a society—not unlike feudal society—where one class of people live without laboring, while the other labor indefinitely without any
improvement in their condition (at best there is no improve-
ment; if the population is increasing, it is likely that
there will be immiseration). It is surely questionable
that such a society could long persist without the imposi-
tion of totalitarian controls, particularly if the society
possesses a relatively free and effective communications
network. It might persist, if the societal superstructure--
educational institutions and mass media in particular--are
sufficiently powerful to keep people content, though Heil-
broner's suggestion seems nearer the mark:

Why societal peace persists in the face of an
outlandishly skewed distribution of income is a
perennial puzzle, especially in a democratic so-
ciety. . . . To the extent that environmental and
other difficulties require a slowdown in the pace
of economic growth, this struggle for place is apt
to become more marked. . . [and we are apt to see]
a reappearance of the "vanished" problem: Disraeli's
War Between Two Nations—the Rich and the Poor.31

If capitalism is unstable without growth, let us build
growth into our model. Let us drop our assumption that the
capitalist consumes the surplus, and replace it with the
assumption that he invests it. For simplicity we will as-
sume that he invests all of the surplus, though nothing es-
sential hangs on so drastic an assumption.

We find ourselves at once confronted with a puzzle.
What exactly does "investment" mean in the context of our
model? Our capitalist at the end of year 1 has \( x_1 = (1+r)x_0 \)
bushels of wheat. What can he do with the surplus \( rx_0 \) so
as to have \( x_2 = (1+r)x_1 \) bushels at the end of the second year?
One solution is to do what he did before, but on a wider scale. This requires the hiring of more laborers. Since this model of economy as a whole assumes full employment, growth in this manner [i.e., without technical progress] requires a growing population. If \( n_i \) represents the number of workers available for period \( i \), then stability requires \( n_i = (1+r)n_{i-1} \) (additional laborers assumed to be as productive as the original ones).

Now, if the population growth satisfies this condition and productivity remains constant, then the system would appear to be stable: economically because the capitalist is able to maintain his profit rate, and politically because the capitalist is not consuming but is performing the socially useful service of providing the means of subsistence of the newly emerging laborers. Individual workers are not improving their condition over time, but at least there is no immiseration.

The problem with this case, of course, is its dependence upon a geometrically expanding population which does not encounter the problem of diminishing returns. In reality a capitalist cannot continue indefinitely "doing what he did before but on a wider scale." He can for a while; this model is not inappropriate for certain periods of capitalist expansion. But it cannot serve as a model for continued, stable capitalist development. If capitalism requires a geometrically increasing population, then capitalism cannot
be considered stable. Thus, growth must take place via technological innovation. Let us model this sort of growth.

Let us reverse the population assumption of the second case and assume that the workforce is constant—not an unrealistic assumption in light of recent population trends in industrial nations. Let us assume that all growth comes from technological innovation. To maintain the profit rate investments must cause output to grow steadily, $x_i = (1 + r)x_{i-1}$ for all $i$. Now, since by hypothesis our capitalist consumes nothing (and presumably wastes nothing), the growth must translate into a steady increase in per capita consumption, also at a rate $r$ per year: $w_i = x_i / n$ and $x_i = (1 + r)x_{i-1}$, where $n =$ the constant population. This is clearly the "golden age" of capitalist development. The profit rate holds steady, keeping the capitalists happy, while wages increase exponentially over time to the delight of the labor force, and populations remain constant to the relief of everyone. Here, surely, is a case of economic and political stability.

Such a state is logically possible. It is in fact the paradigm that advanced capitalist growth must reflect to avoid instability. But how likely is it that advanced capitalist growth will follow this model? What variables must interact how for this happy state to be the outcome of the capitalist market mechanism (with or without some assistance from the government)?

The key variable here, clearly, is productivity: output/
worker. If productivity does not rise at the rate \( r \), then profit cannot be maintained. If \( x_i \) bushels of wheat are invested in period \( i \), \((1+r)x_i\) must be returned to the capitalist.\(^{36}\) Now, perhaps the steady increase in productivity can go on indefinitely. Perhaps technological innovation will always overcome problems of diminishing returns and resource scarcity. But if it fails to do so, the recessionary instability and the intensification of the class struggle described earlier, both triggered by declining profit rate, are the probable results.\(^{37}\)

Productivity increase is the **sine qua non** of stable capitalism, but it is not the only condition. The abstraction of our model covers several others. In reality, an increase in productivity is only one moment of a three-part movement, each of which must succeed in order for capitalist expectations to be satisfied and stability to obtain. The capitalist, possessing a supply of \( rx_i \) at the end of year \( i \) must find an immediate outlet for this surplus; he must locate a potential profit source attractive enough to lure his funds. Secondly, the anticipated productivity increase must materialize. Thirdly, the new products must be **sold**.

We have just discussed the second moment. We remarked (rather abstractly) on the first earlier under the rubric "investor confidence." Investment, as we have noted, involves the channelling of workers and resources from where they are less productive to where they are (expected to be)
more so. If individual capitalists do not see opportunities sufficient to warrant risking their capital, they must either consume this surplus or else exercise a "liquidity preference," simply holding it in wait. If this latter practice becomes widespread, aggregate demand drops, and recessionary instability ensues.

Whether or not investment opportunities really are diminishing has been a controversial issue. The American Keynesian Alvin Hansen advanced this "stagnation thesis" in the late thirties. Marxian economists Baran and Sweezy have made it the focus of an influential critique. Ray mond Lubitz, on the other hand, disputes the stagnation thesis generally, and Baran and Sweezy in particular.

We need not, for our part, enter into this quasi-empirical debate since nobody denies that dwindling investment outlets could pose a problem for capitalist growth. What is important to note from our point of view is that the "stagnation" problem involves two moments, one technological (whether and to what degree productivity increases are possible), and the other socio-psychological (whether a certain class of people will choose to exercise their "liquidity preference"). As we shall see, the potential for disruption posed by the latter component is absent under worker-controlled socialism.

The third moment essential to "golden age" stability is the selling of the produced goods at the anticipated
prices. This condition is not captured at all by our model, where the capitalist advances the product of the \((i-1)\)st period to his workforce at the beginning of the \(i\)'th period in payment for services about to be rendered. This scenario is useful for illustrating certain relations, but it obscures the fact that in reality workers must buy the product of the capitalist, and do so with the money-wages paid them. This complication raises two other sources of instability: the workers must have sufficient money to buy the capitalist's product, and secondly, they must want to buy it. The first is the problem of aggregate demand; the second that of "consumer confidence" and the sales effort.

In Chapter Two we discussed at length the utilitarian case against a large-scale, sophisticated sales effort—the unlikelihood that the needs and desires generated and influenced by such an apparatus would be the utilitarian optimal ones. Here we see the reverse phenomenon—the potential for economic disruption (and hence for non-optimality) posed by the lack of such an apparatus. Capitalism requires growth, which in turn requires investor confidence, which in turn requires consumer confidence. If consumers stop buying at ever growing rates, then products remain unsold, the capitalists' "animal spirits" wane, layoffs follow, and so on. We have here another of those peculiar "contradictions" of capitalism, one which, as we shall see, would not exist (in so stark a form) under our model of socialism.
The other problem, of effective demand, is an interesting one. If we attempt to model it in a straightforward way, we are confronted with what appears to be the "logical impossibility" of capitalism. Suppose that the stable market price for wheat is $1 bushel, and suppose that our capitalist begins with $x_0$ which he advances to his workers in wages. This in turn provides $x_1=(1+r)x_0$ bushels of wheat. Now, in order to realize his profit, the capitalist must sell all this wheat for $Sx_1$. But if the only consumers around are his own workers, holding only $x_0$, from where will the extra demand, the extra $rx_0$ come?^41

To see how profit is possible, we must modify our model. Specifically, we must divide our workforce into two sections, one (farmworkers) growing wheat, and the other (technicians) building new means of production—tractors, trucks, plows, etc.—to be used during the following production period.

Now, if $w_1$ (total wages for the first period)=$x_0$, supply and demand for consumer goods (wheat) will be in equilibrium only if just enough workers farm to produce $x_0$ bushels of wheat. The remaining workers must therefore be directed to produce new means of production. If the value of the capital goods thus produced is $rx_0$, the capitalist obtains his desired profit.^42

The process can clearly continue. The second year farmworkers, using the new means of production, produce $x_1=(1+r)x_0$ bushels of wheat to satisfy the rising demand,
while the technicians turn out additional means of production valued at \( r x_1 \). We are back to the "golden age" (constant rate of profit, rising wages and a stationary population), this new version sufficiently complicated to portray supply and demand equilibrium.

This model illustrates reasonably well, I believe, the actual allocation of people and resources in a growing capitalist economy. A certain portion of the total workforce are engaged in producing consumer goods which are purchased (for the most part) with the wages paid out to the working-class as a whole. Another part, however, is engaged in adding to the real wealth of the capitalist class by building productive equipment, factories, apartment complexes, etc., which they, the capitalists, own. (A third portion is engaged in producing luxury goods, consumed personally by the wealthy class, This portion, however, does not seem particularly significant to the dynamics of capitalist development, and is ignored in our model.)

The model also indicates an additional source of capitalist instability, the vulnerability of the system to "overproduction" crises. The problem here is the asymmetry of the market response to over- and under-production. Equilibrium requires, as we have seen, the production of just the right quantity of consumer goods as are capable of being purchased, at the anticipated prices, by the wages paid to the workers. This in turn requires a particular
allocation of the labor force. If too few goods are produced, market disequilibrium sets in, but of a self-correcting nature. Profits rise in consumer goods industries, and so workers are channelled, via the offer of higher pay, into those industries. The labor force shifts in the requisite direction. On the other hand, if overproduction of consumer goods occurs, workers are laid off. They are not channelled toward producer goods industries. On the contrary, a cutback in consumer goods production triggers a cutback also in producer goods. Total production drops and investor confidence erodes.

Liberal Keynesians are well aware of this dilemma, the solution of which is the aim of their famous dictum: when times are bad, spend, don't save. This advice is directed largely at the governments of capitalist countries, and is now regularly followed. Fiscal and monetary policies are adopted during recessionary periods to insure effective demand: taxes are cut, budget unbalanced, people given "make-work" jobs, all with a view to stimulating demand. This in itself is encouraging to investors, who can be further cajoled by interest-rate reductions.

The difficulty with the Keynesian solution is apparent. To the extent that Keynesian economics manages to solve the problem of adequate demand, our "complicated" golden-age model reduces to the simple one. There the problem was—and there it remains—productivity. Keynesian monetary and
fiscal policies can put purchasing power in the hands of consumers, and this may encourage investors, but if productivity does not increase, destabilizing inflation will result.

The effect of "liberal" (Keynesian rather than laissez-faire) policies on productivity is ambivalent. On the one hand, by encouraging investment, it encourages the funding of research and development, thus increasing the likelihood of productive innovation. On the other hand, to the extent that the recessionary "discipline" of the market is an important incentive to innovation, and to the extent that non-productive "make-work" positions become permanent, the liberal policies inhibit productivity gains. Whichever way the balance tilts (the dispute here is between liberal and conservative economists),\textsuperscript{45} the fact remains that there is no mechanism to insure a steady rise in productivity, the essential ingredient of stable capitalist growth. If productivity lags, then governmental policies can influence the disutility in the direction of either unemployment or inflation, though it cannot guarantee the solution of either problem separately, much less both together.

We have analyzed at length the instability features of capitalism. A comparison with worker-controlled socialism is in order.

Several comparisons have already been made, at least implicitly. Capitalist stability requires growth. Worker-
controlled socialism does not. Capitalism would likely experience economic instability in reaching a stationary state, and would be politically unstable once it arrived. To the extent that ecological stability requires a relatively stationary economy, socialism is preferable.

"Consumer confidence" is also a source of instability under capitalism, the control of which necessitates a large, aggressive sales effort, which itself generates disutilities. Socialist stability would not require such an apparatus, since a decline in sales triggered by consumer satiety translates fairly easily into increased leisure. The system does not need to grow, and hence does not need to sell more and more to maintain stability.

Apart from capitalism's growth imperative, the most crucial difference between the two systems relevant to stability concerns investor motivation. The "animal spirits" of investors play, as we have seen, a decisive role in maintaining or upsetting stability. If capitalists exercise their "liquidity preference" instead of reinvesting their profits—for whatever reasons: overproduction, discouragement over falling profits, inability to find investment outlets—the specter of recession arises. Investor confidence is thus a key to capitalist stability.

"Investor confidence" takes quite a different form under socialism, for there is no special class of people who have the option of "liquidity preferences." The quantity
of investment funds is determined democratically and collected via taxation. Collective discouragement over the fruitfulness of investment might lead to a reduction, but this is simply a tax-reduction—which translates into either more present consumption or more leisure.

Once these funds have been collected, they must be utilized. Entrepreneurial collectives or individuals must come forward. It seems unlikely that there would be a shortage, since the individuals do not risk their personal savings, but a portion of the social surplus. The risk of bad investment remains, of course, but it does not seem overly dangerous. The projects are scrutinized in advance for financial solidity, and the individuals involved do have a definite personal stake in the success of the venture. The self-esteem and prestige of the entrepreneurs will certainly suffer if the project fails, as will their incomes and that of the others whom they have persuaded to join with them.

If this risk is too high to call forth enough people to claim the allocated funds, special provisions could be made: special training and technical assistance for those willing to undertake new projects, university programs for young people so inclined, bonuses (if really necessary) for successful ventures.

The motivational factors influencing capitalist investors are quite different from those affecting our socialist
entrepreneurs. The capitalists risk their own fortunes in hopes of achieving financial gain. The socialists are variously motivated: the appeal of seeing one's "great idea" materialize, of providing a desirable commodity or service that is at present non-existent or in short supply, of having a better job—better paying (if the project is successful) or more enjoyable, of attaining a degree of prestige and influence accompanying a successful venture. The risk is that the assumption of responsibility, with the attendant hard work and pressure, will go for naught, that the project will fail, forcing one to look for work elsewhere along with the others involved in the enterprise.

The motivational factors influencing socialist entrepreneurs might well (and no doubt often do) play a part in influencing the decisions of capitalist entrepreneurs, but it is important to remember that the capitalist entrepreneur is not the same person (necessarily) as the capitalist investor, and it is the latter whose animal spirits must be maintained to avoid instability. It might be maintained that capitalism provides entrepreneurial types with all the incentives credited to socialism above, and in addition offers the possibility of great fortune, and that this difference will make capitalist entrepreneurs more enterprising than their socialist counterparts. This proposition seems dubious to me, though if true, it counts in favor of capitalism. But whether true or not, the fact remains...
that capitalism depends on investor confidence to a degree that seems to make it considerably less stable than socialism, where the investors are the taxpayers and where the category "liquidity preference" has no significance.

**Initiative and Freedom**

Let us consider now, to conclude the overall argument of this work, two arguments in favor of capitalism, one essentially economic and the other political.

The first is the claim that capitalism gives maximal reign to free initiative. There is not too much that can be said about this since it is less an argument than a bare assertion. If we compare our models, we see that both capitalism and socialism allow "entrepreneurs" to appeal to institutions for funds for new projects. Capitalism does allow, in addition, the investment of one's own savings, but this structural difference allows for no immediate conclusion about the relative quantity of capital available under the two systems. By taxing themselves, the people of our socialist society can decide on any level of investment, for less or for more funds than the capitalist total.

The fact that individuals in a capitalist society need not go through institutional bureaucracy if they have their own funds can be advanced in support of capitalist initiative maximization. The fact, of course, is undeniable, but its significance is certainly questionable. First, there would
seem to be relatively few investment projects in advanced capitalist countries that are unmediated by institutions similar (in bureaucratic structure) to a planning board. Small investors usually need to borrow from lending institutions; the "internal" financing of large corporations is done via departmental interaction, certain departments requesting funds from others which dispense them. It is not clear that "bureaucracy" involved in such procedures is necessarily much less than that of the planning board.

The difference might be significant, but it would have to be sufficient to counterbalance one clear advantage of the socialist arrangement—anyone with a good idea can come forward and request funds. One need not have personal savings, nor even collateral. This would seem to allow for greater initiative than under capitalism, where the risk, particularly to small businesses, is so high.

There is also far more room for individual initiative within a worker-controlled firm than within a capitalist one. With a direct and significant stake in the successful operation of the firm, and possessing a democratic forum in which to present their ideas, individual workers have both the incentive and the opportunity to initiate change. The structure of worker-controlled socialism clearly provides more room for this type of initiative than capitalism.

The capitalist argument, to account for these observations, must be modified to claim not maximality, but
optimality. It must be maintained that individual initia-
tive under socialism would likely be too greatly stimulated
--too many people asking for funds generating a bureaucratic
quagmire to deal with the requests, or too much democracy
in the workplace degenerating into inefficiency and chaos.
This argument cannot be settled abstractly. The empirical
evidence at this point is not conclusive, though the appar-
ent success fo worker-control experiments challenge the val-
idity of this objection.\(^{49}\)

Let us consider one final defense of capitalism, the
classic "political" defense, articulated perhaps most force-
fully by Friedrich Hayek in *The Road to Serfdom*:

> It is now often said that democracy will not
tolerate "capitalism." If "capitalism" means here
a competitive system based on free disposal over
private property, it is far more important to real-
ize that only within this system is democracy pos-
sible. When it becomes dominated by a collectivist
creed, democracy will inevitably destroy itself.\(^{50}\)

Hayek's argument, as it is set forth, depends on two
crucial premises:

(i) The various kinds of collectivism, communism,
fascism, etc. differ among themselves in the nature
of the good toward which they want to direct the
efforts of society. But they all differ from lib-
eralism and individualism in wanting to organize
the whole of society and all its resources for
this unitary end and in refusing to recognize
autonomous spheres in which the ends of the indi-
viduals are supreme.\(^{51}\)

(ii) To direct all activities according to a single
plan presupposes that every one of our needs is
given its rank in an order of values which must be
complete enough to make it possible to decide
among all the different courses which the planner
has to choose. It presupposes, in short, the exis-
tence of a complete ethical code in which all the
different human values are allotted their due place.\textsuperscript{52}

Neither of these premises happen to be true. Our model of worker-controlled socialism does not entail "organizing the whole of society and all its resources for a unitary end." The government, in our model, has control over new investments, and not over the economy as a whole. We have argued that the disposal of the economic surplus ought to be decided democratically, since the nature of its disposal can substantially affect the lives of everyone. But in our model, the great bulk of the economic decisions remain in the hands of individual consumers (what and how much to buy), and in those of the individual firms (what, how much, and under what conditions to produce).

New investments will be subject to comprehensive, coordinated planning, but this does not presuppose "the existence of a complete ethical code in which all differences of human values are allotted their due place." Major investment decisions will be subject to debate and democratically decided. Less important decisions, however (the standard being impact on the general public and the quantity of resources involved) would be made primarily on the basis of projected profitability. So long as the distribution of wealth is equitable and the long-term consequences of collective decisions are taken into account, profitability provides a reasonable index of social desirability. Projects must be approved by the planning board, but their discre-
tionary power can be quite restricted either by custom or by law if necessary.

Curiously, our model suggests an evolution in quite another direction from Hayek's "serfdom," toward something that looks rather like the "withering away" of the state. Since the state, in our model, controls new investments, its power is determined to a significant degree by the quantity of resources devoted to "deferred consumption." Now this might be quite high, particularly in developing countries, but if the country develops, it is not unlikely that the rate of new investments—if it is decided democratically—will decline. If this happens, the economic role of the central government will likewise decline. In a stationary state where people are generally satisfied with the material standard of living, the government's economic role in the allocation of new investments might be quite insignificant.

Concluding Remarks

Our lengthy analysis of the utilitarian case for capitalism has come to an end. Several other defenses have been encountered along the way and also found wanting. Appeals to the ethical canons of contribution and sacrifice were shown to be misguided. A defense relying on Rawlsian principles was observed to have a structure similar enough to the utilitarian defense to be vulnerable to the same objections.
The utilitarian case against capitalism, the basic result of this dissertation, is not absolutely conclusive. Too many empirical variables are involved to allow a logical deduction. We have endeavored to show, however, that the utilitarian case for capitalism is highly dubious, requiring far more implausible assumptions than it seems reasonable to grant. The case for socialism, for the specific version of worker-controlled socialism proposed here, is much stronger.

It should be noted that no attempt has been made to demonstrate the superiority of our particular model over other versions of socialism. I believe a case can be made for our alternative, though this is not the place to undertake the necessary analysis.

However, a few words concerning one feature of our model that might be objected to by socialists are in order here. The model we have proposed relies to a high degree on a market mechanism. But it has often been observed—Marx, of course, figures prominently here—that this mechanism itself breeds anti-social tendencies. So long as one's material well-being is tied to the production of commodities (items for sale), one is inhibited from experiencing one's own activity as part of the collective, cooperative labor of society. One is tempted instead to "exploit" others, those perceived as competitors or consumers. This antagonism of interests generated by the market serves to promote an
"efficient" allocation of goods, but it does so by promoting as well suspicion, deception and selfishness.

It has long been the socialist dream to abolish this contradiction of capitalism, along with the many others. Our model does not. To a considerable degree, it mitigates the harshness of the contradiction, but it does not dissolve it. It is my belief that the objective conditions of contemporary society, even allowing for the considerable change in consciousness which can be presumed to accompany the advent of socialism, render the abolition of the market unfeasible.

It does not follow that the market should or would remain a permanent feature of a worker-controlled society. It is not inconceivable that a worker-controlled society structured as described here would evolve over time toward precisely the marketless, "utopian" socialist dream. Let us consider this possibility.

Our model, recall, has two sectors, a market sector which produces goods and services for sale and a public sector which provides the "free" services ordinarily provided by the state. Little has been said about the public sector, since its economic structure is not much different (except for the far greater worker-democracy within the various governmental agencies) from its capitalist counterpart.

In our analysis we have assumed that the bulk of the economic activity of society would be concentrated in the
market sector, as it is under capitalism. But if this sector is to "wither away," then the public sector must necessarily expand.

The prospect of such expansion is apt to conjure up, especially but not exclusively among those sympathetic to capitalism, a vision of gigantic bureaucracy, grotesque inefficiency and eventual totalitarianism. Such a vision, however, need not be prophetic.

The conditions of the transition are exceedingly important, for the vision is not without some foundation. In particular, it seems important not to shift enterprises into the public sector which produce goods and services which will be sold. If rationing is necessary and can be equitably accomplished by a price mechanism, then there is little advantage to be derived in "nationalizing" the industry, a process which simply places the workers in an antagonistic relationship with the government with which they must negotiate for wages, wages which may or may not be recoverable from the sale of their output.

The case with goods which need not be rationed is quite different. If demand is highly inelastic, if it is affected little by price changes (salt is the economists' favorite example, though the list can no doubt be extended to include other items of basic foodstuff, certain types of clothing, some kinds of transportation, most kinds of health care, etc.), then these items might well be provided free.
Producers could agree to supply these goods without charge, in return for a governmental agreement to maintain their incomes. The workers gain a degree of security here that is absent under market conditions; on the other hand the "discipline" of the market is lost. If this loss does not affect production (the self respect of the individual worker and the collective discipline of peer group pressure proving adequate) then this arrangement is highly desirable. There is a gain in security for everyone—for the workers in the industry and for other members of society who no longer have to worry about supplying themselves (as consumers) with certain items.

Now, if a worker-controlled society evolves toward a stationary state of relative affluence, more and more goods might become candidates for such a transition. As material wants and desires stabilize and as work itself becomes more creative and satisfying, the *raison d'etre* of the market place declines. The government guarantees more and more wages which, however, decline per capita since more and more consumer goods and services are provided free. The classic "communist" vision—*from each according to his ability, to each according to his need*—emerges as a reality.

Such an evolution is conceivable. Whether or not it is likely need not concern us here. The question is not relevant to the basic argument of this dissertation or to the real political and economic issues which confront the
women and men in this world today.

The question we must answer is: capitalism or socialism? If the argument of this dissertation is essentially correct, then the case of the latter, from the ethical perspective of utilitarianism, is overwhelming. Whether or not enough people become convinced of this (as utilitarians, Rawlsians, Marxists, etc.) to accomplish the change, of course is another matter. But if they do, perhaps the question of "communism," of bringing about a society where people give according to their ability and receive according to need, will then become the pressing concern of political philosophy and practice.
Notes

1. We have not adhered rigorously to this assumption. It was relaxed, for example, toward the end of our discussion of workplace organization so that we could consider workplace evolution. Logically, such consideration belongs to the "dynamic" case, but it relates so closely to the earlier argument that we displaced it.

2. Cf. Capitalism, Socialism and Democracy, p. 63ff. Schumpeter does not make such an argument explicitly, for he views himself as a "scientific" economist engaged in describing and predicting, not as a moralist concerned with justification. The tenor of his thought, however, points to such an argument.

3. Maurice Dobb, Welfare Economics and the Economics of Socialism, p. 149. Compare also Joan Robinson's rhetorical question, "What theory has ever been advanced of how private self-interest directs new investments into the lines that best provide for the needs and desires of society as a whole?" (in "The Age of Growth," Challenge, 19 [May-June, 1976], 9.)

4. Phelps lists a set of six as sufficient: (1) A competitive equilibrium exists and is attained. (2) There is perfect information about current and future prices (including interest rates and wage rates) over the lifetime of the population and also perfect information about current and future supplies of public goods. (3) Producers have perfect information about current and future technology over the lifetime of the population. (4) There are no externalities of production. (5) Consumers have perfect information about current and future tastes over their lifetime, and their preferences are unchanging over time. (6) There are no externalities of consumption other than the public goods whose production we take as given. E.S. Phelps, "Growth and Government Intervention," in Growth Economics, ed. A.K. Sen (Baltimore, 1970), p. 498.

5. Marx's paean to capitalist productivity in the Communist Manifesto is often cited. Cf. Schumpeter, p. 7n.


11. Public agencies could provide these services free of charge. It is also open to private individuals or worker-controlled concerns to offer such services for hire, provided the fee is not a non-terminating claim to a percent of the project's profit—for that would constitute property income.

12. The investment plan does not affect existing firms in their ongoing pursuits, nor does it affect their disposal of accumulated depreciation funds, which they are, by law, required to maintain. These funds must be reinvested in the firm, but how is for the workers to decide. Workers can use their funds to modernize, to shift production to another commodity, etc. without seeking the approval of the planning board.


17. As remarked earlier, (cf. p. 60, note 39), Kuznets thinks that investment is exclusively the prerogative of the upper 10% of the population. Drucker ("Pension-Fund Socialism") disputes this, pointing to the dramatic rise in pension-fund investments. This debate need not concern us. Our point is: whatever the source of investment funds, the rate of investments is not a debated, democratic decision.
According to Marx, this division is the historical outcome of a protracted class struggle (cf. Wages, Price and Profit [Moscow, 1947], p. 52). According to the neoclassicists, it is the result of the relative values of the marginal products of labor and capital. The radical Keynesians tend to side with the Marxists here, at least in their negative evaluation of "the marginal product of capital." (Joan Robinson's "The Production Function and the Theory of Capital," in Review of Economic Studies, 21 [1953-4], 81-100, touched off a controversy which has raged for twenty years. For a detailed survey, see G.C. Harcourt, Some Cambridge Controversies in the Theory of Capital [Cambridge, England, 1972], and also "The Cambridge Controversies: Old Ways and New Horizons—or Dead End?" Oxford Economic Papers, 28 [March 1976], 25-65.)


Ibid.

Recall our discussion, p. 6 ff.

It cannot be presumed that since most people consume all their income under capitalism and save none, that they would not choose to consume less and save more under socialism. Sen's paradox is applicable here. (It is precisely this case that Sen describes in the article cited above.)

It is not entirely true that one's livelihood is never threatened. The funding of an automobile plant might destroy the buggy-whip industry. Provisions for the transformation of obsolete industries must be made by the planning board. Such adjustments might well be painful to some people, though they would seem to fare better under a system which attempts to foresee and cushion such adjustments than under one which does not.

These needs and desires have an indirect effect, of course, since a refusal to buy the fruits of the new investments will undercut investor confidence and discourage further investment. This indirect effect, however, generates instability difficulties which will be discussed below.

26 Cf. Sweezy, pp. 133-234, for details, documentation and discussion.


29 We will not use any of the myriad models that have been put forth in recent years, for they are generally too complex, too specialized, too mathematical and/or too couched in Keynesian terminology for our purpose.

30 Thus our "necessary" condition is "necessary" only in a weak sense. When we say, "X is a necessary condition for stability," we mean that stability is highly improbable without X.


32 Growth in this fashion is growth due to movement along a production function (here assumed to yield constant returns to scale) rather than movement to a different one.

33 A word of caution is in order. Our model is much too simplified to provide any insight into capitalist motivation. It is not intended to do so. Why capitalists invest rather than consume has already been discussed.

34 The population of North America sextupled from 1850-1950. The world population rose 6.4%/decade from 1750-1950 as compared with about 6%/century from 0-1750. (Kuznets, p. 9.)

35 This is not strictly true, since the geometrical ratio could be so small as to be insignificant in the foreseeable future. However, in order for population growth to sustain profit rates normally expected in existing capitalist societies (12% in good years, 9% in bad, says Solow in his contribution to *Perspectives on the Economic Problem,* p. 218), it would have to far exceed demographic stability.

36 Our one-commodity model avoids, at the cost of realism, the indexing problem. (If society produces 500 head of cattle the second period instead of 1000 bushels of wheat,
how much has it grown?) This complication, however, does not affect our basic point: growth (measured by some suitable index), which is essential for stability, requires productivity gains (similarly measured) which may or may not be forthcoming.

37 We do not claim that a total breakdown of the system will occur, though that is a possibility. We are arguing that consequences are likely which seem non-optimal from a utilitarian perspective. To the extent that worker-controlled socialism can avoid this instability, it is preferable.

38 In Full Recovery or Stagnation? (New York, 1938).

39 Monopoly Capital.


42 We leave unspecified here how this value is determined. (A labor theory of value could be invoked, though there are other possibilities.) The value question is not our present interest. We simply wish to illustrate with a macroscopic model how profit is possible even if only workers consume and the only consumer demand is their wages.


44 Keynes himself did not hesitate to advise the general populace as well. In a 1931 radio broadcast he urged, "Oh patriotic housewives, sally out tomorrow early into the streets and go to the wonderful sales which are everywhere advertised. You will do yourselves good--for never were things so cheap, cheap beyond your dreams. Lay in stocks of household linen, of sheets and blankets to satisfy your needs. And have the added joy that you are increasing employment, adding to the wealth of the country because you are setting foot on useful activities, bringing a chance and a hope to Lancashire, Yorkshire and Belfast." Quoted by Elizabeth Johnson in "John Maynard Keynes: Scientist or Politician," After Keynes, ed. Joan Robinson (Oxford, 1973), pp. 15-16.

45 Our characterization is not entirely accurate, since virtually all economists are "Keynesian" in recognizing that the government must act to promote economic stability. Liberals are more inclined to stimulate consumer demand
directly (public-works projects, tax cuts to individuals) while conservatives generally favor policies (reducing interest rates, increasing the money supply) designed to tempt private entrepreneurs to borrow. Needless to say, these boundaries are not rigid.

46 Cf. Toward a Steady-State Economy, ed. Herman E. Daly (San Francisco, 1973) for a sustained defense of the stationary-state from a variety of economic and ethical points of view.


48 The government, of course, can to a degree exercise such a preference, since it has at its disposal the Keynesian tool so often used by a capitalist government—an unbalanced budget. One would expect this technique to be applied as it is under capitalism to correct the excess or deficiency of demand generated by the market. The crucial difference between the two systems is the non-existence in our model of a class whose investment decisions are made apart from considerations of the well-being of the economy as a whole, and whose net effect can destabilize the economy.

49 Cf., for example, Jan Vanek's detailed empirical study, The Economics of Workers' Management: A Yugoslav Case Study (London, 1972), or the collection of readings, Workers' Control, ed. Gerry Hunnius, G. David Garson and John Case (New York, 1973).

50 The Road to Serfdom (Chicago, 1944), pp. 69-70.

51 Ibid., p. 56.

52 Ibid., p. 57.

53 Yugoslavia, according to Jaroslav Vanek, devoted a remarkably high 28% year from 1950 to 1964 to investment, one of the highest figures in the world. The Participatory Economy, p. 48.

54 The only major defense not considered is the "natural rights" defense. Though this argument has been revived recently (especially by Nozick's Anarchy, State and Utopia), I do not believe it can survive close scrutiny. A systematic analysis, however, is beyond the scope of this paper.

55 Cf. Ernest Mandel, Marxist Economic Theory (New York, 1968), II, Chapter 17, for a more detailed treatment of this and related issues.
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