

Efficiency Arguments For and Against the Market

Libertarians defend the free market because, they claim, it respects people's rights to acquire and transfer what they legitimately own. Other advocates of the market claim that market-oriented economies produce and distribute goods more efficiently than centralized economies. Critics of the market, however, contend that reliance on markets can have a range of untoward consequences including overproduction of goods at the expense of leisure, high unemployment, and failure to provide public goods. In the following essay Allen Buchanan assesses these claims.

EFFICIENCY ARGUMENTS FOR THE MARKET

The Ideal Market The case for the market on grounds of efficiency rests on two main claims: (1) a theoretical statement that exchanges in the ideal market reach an equilibrium state that is Pareto Optimal* . . . , and (2) the assumption that actual (nonideal) markets, or feasible modifications of actual markets, sufficiently approximate the efficiency of the ideal market to make them preferable to nonmarket arrangements. We must begin, then, with a description of the conditions that define the ideal market and that ensure that exchanges result in a Pareto Optimal equilibrium state.

1. Full information is available about the performance and quality of goods and services and the costs of all alternative ways of producing them, and the cost of this information is zero.
2. Costs of enforcing contracts and property rights are zero, and property rights, including rights to the means of production, are established and stable.
3. Individuals are rational in this sense: their preferences are organized in a transitive ordering (such that if an individual prefers *A* to *B* and *B* to *C*, he also prefers *A* to *C*) and they are capable of selecting appropriate means toward their ends.
4. (a) Transaction costs are zero (transaction costs include costs of bringing goods and services together for exchange, and costs of reaching agreements for exchange, for example, costs of formulating mutually acceptable

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*Pareto optimality refers to situations in which nobody can be made better-off without making somebody else worse-off.—Eds.

contracts, and costs of information about potential offers to buy and sell) or (b) there is perfect competition (that is, no buyer or seller can influence prices by his own independent actions and there is complete freedom to enter and exit the market) and no externalities are present. (An externality is a "neighborhood" or "third-party" effect of a market exchange: an effect on some one's well-being which is not taken into account in the market exchange. Those neighborhood effects which are beneficial are called external economies or positive externalities; those which are detrimental are called external diseconomies or negative externalities. An example of a positive externality is the pleasant view I enjoy of my neighbor's flower garden. The exchange between my neighbor and his landscaper took into account only the costs and benefits to the parties to the exchange, not the benefits to me. An example of a negative externality is a chemical producer's discharge of noxious gases into the air: the cost of breathing bad air is not taken into account in the bargain that is struck between the chemical producer and the customer who buys his product.)

5. Products offered in the market are undifferentiated—buyers cannot distinguish between the products offered by various sellers, and vice versa.

Pareto Optimal outcomes are guaranteed only if all of these conditions are satisfied. When they are satisfied, production and exchanges will occur until an equilibrium state is reached which is such that no one could be made better off without someone being made worse off.¹

Since the immensely strong conditions that define the ideal market are never met in actual markets, the case for the market on grounds of efficiency depends on the extent to which actual markets do approximate or can be modified to approximate, the ideal market.

The Diachronic Efficiencies of the Market The preceding way of understanding the efficiency of the ideal market, by focusing only on the exchange of existing goods and services, overlooks what may be called the diachronic efficiencies of the market. The latter are efficiencies that result from competition over time. Competition among producers reduces costs of production, since producers who fail to develop and utilize less-costly methods of production are replaced by those who do. Competition among entrepreneurs reduces transaction costs, because the entrepreneur who can match buyers with sellers with the least expenditure of his own resources can charge less for his services and capture a larger share of the market. Finally, the need for information on the part of producers, consumers, and entrepreneurs creates a market for information. In each of these respects, competition in nonideal markets generates incentives for behavior that tends toward the more perfect satisfaction of the conditions of the ideal market, in particular, zero transaction costs, full information, and zero information costs.

Some celebrants of the market, especially F. A. Hayek, have emphasized not only that competition in nonideal markets tends toward more perfect fulfillment of the conditions of the ideal market by efficiently producing and distributing new information, but also that there is a more basic sense in which markets utilize information efficiently.² In the market

enormous amounts of complex information are utilized in the emergence and adjustments of prices over time, and yet it is not necessary that all of this information, or even a minuscule fraction of it, be possessed by any individual or group for the system to tend toward efficient outcomes. The market thus enables individuals and groups to economize on information.

Hayek's point can best be appreciated if we contrast the information requirements of decentralized allocations production and distribution in the market with the information requirements of attempts to organize a large-scale economy through centralized planning without the aid of markets. Consider, for the purposes of simplicity, only the amount and complexity of information that would have to be gathered and successfully integrated in order to make even a rather limited decision to allocate social resources among alternative lines of production. In order to make a reasonable choice among different proposals for allocating resources across existing and possible lines of production, the individual planner (or planning group) must be able to estimate reliably the costs of producing X amount of good G , relative to Y amount of good H , and so forth for all of the types of goods under consideration. To make such estimates it is necessary for the individual (or group) to integrate a staggering amount of information concerning the least-costly method of production for each producing unit (for example, each physical plant) in each line of production (for example, manufacturing vehicles for public transportation). And even if all of this information were available to each planner and even if each planner were able to integrate it successfully in a cost schedule for all of the goods under consideration at any given time, constant revision would be necessary, since the least-costly method of production for any existing or possible product can change with developments in technology, organizational techniques, and discoveries or depletions of minerals and other raw materials.

All of this, however, is a vast simplification. So far we have proceeded as if information about costs of production were not dependent upon information about individuals' preferences. If the planner's selection of an allocation proposal is to take into account the preferences of the individuals for whom the goods are being produced, he must know what those preferences are—which goods each individual wants, in what amounts, and at what cost in foregone opportunities for enjoying other goods or other goods in larger quantities that might have been produced. The problem of information is profoundly exacerbated once the diachronic dimension is recognized: individual preferences change over time.

In comparison, the information required of participants in the market is minimal. The information a successful consumer or producer or entrepreneur must possess is quite narrow. For example, a producer of tables needs to know if he can expect to sell a certain number of tables at a certain price; he need not know how many tables the economy as a whole should produce, or what the ratio should be of tables relative to automobiles. The same competitive forces that give rise to specialization in the production of goods and services also produce specialization in the gathering and using of information. Or, perhaps more accurately, specialization

in the gathering and utilization of information is just one aspect of specialization in economic roles in the market. In the case of the entrepreneur this is most obvious, since there is a sense in which information (about possible matches between buyers and sellers) is his only business. But in every case exchangers in the market are specialists in limited, concrete information of various sorts.³ The market, then, can be viewed as a device for efficiently coordinating the actions of many individuals through specialization in the gathering and use of information.

So far we have contrasted the information requirements of the ideal market and economic planning only from a *cognitive* standpoint, but the case for the market on grounds of efficiency in gathering and utilizing information is strengthened if we also focus on the *motivational* aspects of that process. Those who argue for the market on grounds of informational efficiency can contend not only that their system makes more realistic demands on the individual's cognitive abilities, but also that it makes more realistic demands on individual motivation. The same simple motivational assumptions that explain the tendency toward efficient exchanges in general also explain why it is that the individual will be sufficiently motivated to gather, integrate and apply the limited information he needs. Since the individual will bear the costs of failing to gather and utilize needed information, each has an incentive to be well-informed. Those who reject the argument for the market on grounds of informational efficiency must show not only that planners would have the cognitive ability to gather, integrate and apply vast amounts of complex, constantly changing information; they must also provide a theory of motivation to show that the individuals in question would have sufficient incentives to do what they are cognitively equipped to do.

The Productive Efficiency of the Market Finally, proponents of the market tout its productive efficiency: it enables a society to maximize overall outputs relative to initial overall inputs. While exchange in the ideal market ensures that an economic pie of a given size will be distributed in a Pareto Optimal fashion, competition—by placing resources in the hands of producers who most closely approximate the least-costly methods of production—increases the size of the economic pie.

Some of the earliest advocates of the market, such as Adam Smith and Bernard Mandeville, suggest that the general argument for the market on grounds of productive efficiency can be applied to the particular case of what they regard as a scarce productive resource: altruistic behavior. Their point is that the market does not rely upon altruistic behavior in satisfying human needs and preferences and that in this sense it economizes on the "expenditure" of altruism. There are several assumptions behind this argument. One is that the scarcity of altruistic behavior is a fact about human nature, or as Hume put it, that men are generally only capable of "limited altruism" directed toward a small circle of family and friends. If in fact the sentiment of altruism is by nature severely limited, and tends to lose its practical effectiveness as we attempt to extend it to more distant individuals, then a system that organizes large numbers of

individuals without depending upon altruism will not only avoid futile attempts to rely upon altruism to do what it cannot do; it will also "free up" our limited resources of altruism for their proper function: the effective expression of concern for those with whom we are most closely associated. In this sense, then, the market system uses altruism more efficiently than alternative systems, just as attaching a button with a thread is a more efficient use of that thread than attempting to use it to hoist a boulder.⁴

Critics of the market, whether they be romantic conservatives who pine for the alleged altruism of premarket communities or Marxian socialists who predict a widening of altruism in postcapitalist society, challenge this empirical assumption. They argue that the limited altruism which Hume and Smith took for an unalterable feature of the human condition is in fact a transient characteristic of human beings in market society. They conclude that the fact that the market system does not require lavish expenditures of the scarce resource of altruism is hardly an argument for the market system if it produced the "shortage" of altruism in the first place.

EFFICIENCY ARGUMENTS AGAINST THE MARKET: MAJOR SOURCES OF INEFFICIENCY

The most obvious challenges to the market on grounds of efficiency are attempts to show that actual market processes fail to satisfy important conditions of the ideal market. Inefficiencies result from (a) high transaction costs, (b) lack of information on the part of producers and consumers, (c) monopolistic tendencies, (d) the presence of externalities, (e) the existence of barriers to successful voluntary collective action to secure certain goods which the market cannot provide (public goods), (f) lack of congruence between the satisfaction of the individual's preferences as they are revealed in the market and the individual's well-being, and (g) unemployment.

High Transaction Costs Actual markets tend toward Pareto Optimal outcomes only to the extent that transaction costs approximate the zero transaction costs of the ideal market. But transaction costs are never zero in the real world. Buyers and sellers must struggle with various logistical problems, including those involving transportation and communication costs. Strategic behavior (for example, bluffing with lower offers than one is prepared to pay or threatening to withdraw from the bargaining process) are also transaction costs. Further, if the total costs of the legal system as far as it is involved with the drafting, interpretation, and enforcement of contracts is included, transaction costs are enormous. The most that can be said in defense of actual markets here is that competition tends to reduce transaction costs.

Lack of Information A host of psychological, institutional, and technological factors ensure that producers and consumers in actual mar-

kets lack information required for Pareto Optimal outcomes. Producers must proceed on the basis of often highly speculative predictions of changing consumer preferences, and even experienced firms may overproduce or underproduce. Producers also often lack information about the methods of production employed by rival firms, either because producers with less costly methods deliberately keep this information secret, or because it is restricted by patents, or because it is too costly to obtain, or because it is simply overlooked. (The primary information-gathering task is the gathering of information about what sort of information to look for and where to look for it.) Similarly, consumers may lack relevant information about the existence of alternative products or about the quality or performance of products.

Lack of consumer information about medical care is often cited as an example of ignorance as a barrier to efficient outcomes in the market. Defenders of the market reply that consumer ignorance here is largely a result of lack of competition among producers because of licensure laws which limit competition by restricting entry into the market and because of laws and professional codes of ethics which prohibit or discourage advertising. It is extremely difficult, however, to determine to what extent the removal of these sorts of barriers to competition would in fact remedy the deficiency of consumer information, since the technical character of some information may itself be an obstacle to consumers.

While the defender of the market relies upon advertising, broadly construed, and competition to ameliorate deficiencies of information, the critic of the market counters by pointing out that successful advertising often consists at least in part of nonrational appeals which either misrepresent, or omit altogether, relevant information. Further, attempts to ameliorate this problem by monitoring advertising in order to enforce prohibitions against misrepresentation may be extremely costly and relatively ineffective. And even in cases in which there is no misrepresentation, advertising may stimulate demand without conveying information which the individual himself, upon considered judgment, would agree is relevant to the making of a reasonable choice, granted his own stable preferences.

Monopolistic Tendencies Monopolistic tendencies exist when some exchanger can unilaterally influence prices. We have already seen several circumstances which make this possible: restrictions on entry into markets due to licensure, prohibitions against advertising, and trade secrets. Monopolistic tendencies may also result, of course, from government support (as in the case of legal prohibitions against the delivery of first-class mail by anyone other than the U.S. Post Office) or from collusion among firms to fix prices or drive out competitors or by some combination of government support and collusion. In principle, at least, so-called natural monopolies can arise and persist without government support if some firms happen to enjoy unique access to certain raw materials or if economies of scale make it difficult for new firms to survive long enough to amass sufficient capital to produce competitively.

There is, however, considerable dispute as to whether "natural" and

collusive monopolies pose a serious threat to efficiency in the absence of government support. It can be argued that both "natural" and collusive monopolies are inherently unstable and tend to break down eventually through competition. Advocates of the market often infer, then, that government-supported monopoly is the only serious threat to efficiency in the long run. They then go on to draw the *additional* conclusion that monopolistic inefficiencies are not a serious objection to the market because they arise only when the market is not allowed to operate freely. This last conclusion, however, is a gross non sequitur. Even if monopolies would vanish or be of little consequence if they were not supported by government, it would follow that the presence of monopolies is not a serious objection to the market on grounds of efficiency *only if* there were good reason to believe that government support for monopolies can *in fact* be eliminated. It would be an error of excessive rationalism to assume that once it is recognized that monopolies reduce overall efficiency, firms and government officials will cease the practice of government support for monopolies. . . .

Externalities Critics of the market have been quick to point out the pervasiveness and seriousness of neighborhood effects, or externalities, as a key source of the market's failure to achieve efficient outcomes. Perhaps the most commonly cited contemporary example is the external costs that are imposed on people who breathe air polluted by chemical producers. Such negative externalities can be viewed as inefficiencies of *overproduction*. More of the chemical is produced than would be produced if the total costs of production, including the costs to breathers of polluted air, were taken into account in establishing the equilibrium price for the product. Because the cost to the producer of producing the chemical is less than it would be if the costs to third parties were included in his costs, the producer can sell the chemical at a lower price and still make a profit. But since more will be sold at this lower price, more will be produced than would be if the total costs, including detrimental third-party effects, were taken into account.

Positive externalities (beneficial third-party effects) are also inefficient. Standard examples include the beneficial effects of education and vaccination. It is argued that private exchanges for educational services, at least the more basic ones, generate beneficial effects for those not involved in the exchange. (An educated citizenry is valuable to society at large, not simply to those who purchase educational services or to those who are paid to provide them.) Similarly, if some individuals purchase vaccinations, others who do not will benefit from this exchange because the probability of contracting the disease in question will decrease for everyone, including those who are not vaccinated. Positive externalities, then, can be viewed as inefficiencies of *underproduction*: if the benefits of something can be had without purchasing it, then less of it will be produced (if any of it is produced at all) than would be produced if all the benefits flowing from it were obtainable only through purchase.

Failure to Provide Public Goods Anticipation of positive externalities can result in the failure to provide *public goods*.⁵ There are five features of public goods which together can result in a failure to provide the good: (a) Action by some or all members of the group is necessary and sufficient to provide the good, but action by one or a few members is not sufficient. (b) The good, if provided, will be available to all, including noncontributors (jointness of supply). (c) There is no way or no practical way to prevent noncontributors from partaking of the good (nonexcludability). (d) The individual's contribution is a cost to that individual. In the case of a *pure* public good, there is an additional feature: (e) One individual's consumption of the good does not diminish the supply of it available to others.

Two related problems can prevent the provision of a good when conditions a-d are satisfied. One, the *free-rider problem* occurs when some or all individuals attempt to take a free ride on the presumed contributions of others to the provision of the good in question. The individual, if rational, will conclude that either enough others will contribute to achieve the good, in which case his contribution (which is a cost to him) would be wasted; or not enough others will contribute to achieve the good, in which case his contribution (which is a cost to him) would again be wasted. Since the individual's contribution is a cost to him, he will, if rational, conclude that regardless of whether or not others contribute, he should not contribute. But if all or a sufficient number of individuals reason thusly, the good will not be provided.

The second barrier to successful collective action is the *assurance problem*. An individual who is willing to contribute if assured that others will contribute, does not intend to take a free ride on the efforts of others. Nevertheless, if he has reason to believe that others will not contribute (perhaps because *they* will attempt to be free-riders), he may decide not to contribute.

Attempts to use strictly voluntary agreements to eliminate either negative externalities, as in the case of chemical pollution, or positive externalities, as in the case of public goods such as national defense or the benefits of having an educated citizenry or of vaccination, can be blocked by the free-rider and assurance problems. For example, if several polluting chemical firms make a purely voluntary, unenforced agreement to limit or eliminate the discharge of air-borne pollutants, each firm will have an incentive for noncompliance: they may not comply, either in order to take a free ride on the compliance of others, or because of lack of assurance that others will comply, or both. While either the free-rider or assurance problems may by itself be sufficient to block collective action, competition ensures that the free-rider problem will be the dominant difficulty. A firm which complies only on the condition of assurance that others will do so will at least avoid being placed at a competitive disadvantage relative to others. But even if a particular firm has assurance that all others will comply it would gain a competitive advantage over others by taking a free ride and not complying. Similarly, a purely voluntary, unenforced agree-

ment to contribute to the provision of national defense or to participate in a vaccination program may also break down either because some attempt to take a free ride and reap an external benefit from the "exchange" among those who do comply or because they are unwilling to comply unless they are assured that others will keep their part of the bargain of exchanging compliance for compliance.

Government may intervene in the market in several ways to attempt to eliminate externalities or to overcome public goods problems.

1. Government officials may attempt to persuade parties who are producing negative externalities such as pollution, to comply voluntarily with an announced program or to conform voluntarily to an announced standard. Such efforts, however, are vulnerable to the assurance and free-rider problems and are unlikely to succeed.
2. Government may simply prohibit the behavior that produces the negative externality (for example, outlaw the manufacture of the polluting substance). This alternative may itself be inefficient if there is no pollution-free way to produce the product and if the product is highly valued.
3. Government may allow the activity that produces the negative externality to continue, but tax the producer either in order to reduce the volume of production by increasing production costs or in order to use the tax-proceeds to compensate those who suffer the ill effects of the activity, or both.
4. Government may set and enforce standards which those engaged in the activity must meet (for example, clean air standards for industrial smokestacks).
5. Government may enforce a legal system which allows affected third parties (either individually or in class-actions) to sue for compensation for costs imposed on them by the actions of others.⁶
6. Government may enforce voluntary agreements among individuals or groups.
7. Government may create and enforce private property rights in order to "internalize" externalities or "privatize" public goods—that is, to transform a public good into a collection of privately consumable goods for which the free-rider problem does not arise. For example, if the free-rider problem vitiates voluntary agreements to avoid overgrazing of communal pastures or open range or to limit fur-trapping or lumbering in national forests, government may create private property rights to the resources in question.⁷ At least in the case of such replenishable natural resources, private ownership provides individuals with incentives to conserve which are not present in situations in which resources are unowned or communally owned. In many cases, however, externalities cannot be internalized and public goods cannot be privatized because private property rights in the item in question are not feasible. For example, the problem of preventing acid rain (an externality) or of obtaining clean air (a public good) cannot be solved in this way because private property rights in the planet's atmosphere are not feasible.
8. Government itself may become the provider of a public good which the market fails to provide because of the assurance or free-rider problems. Perhaps the most commonly cited example is government provision of city parks, the idea being that since noncontributors could benefit from these pleasant environments they would probably not come about through voluntary contribution schemes or through private market exchanges.

The inability of the market to eliminate externalities and to provide public goods is a serious and pervasive departure from efficiency. However, if this is to serve as a sufficient reason either for attempting to abandon the market altogether or for restricting its scope by government intervention or by supplementing it with government provision of goods and services, additional premises are needed. First, it must be shown that government intervention, government provision of goods and services, or some other alternative to the market, will itself be less costly—that is, will not involve equally great or greater inefficiencies than the market.

This crucial assessment becomes more difficult to support once it is understood that governmental intervention may itself produce externalities, and that limiting government intervention may itself be a public good, subject to the free-rider and assurance problems. Government regulation—especially because it is devised and administered by fallible human beings—may hinder innovation, contribute to inflation and unemployment by raising production costs, and endanger civil and political liberties by concentrating too much power in the government. Excessive generosity in the awarding of compensation to those adversely affected by externalities may also contribute to higher prices. Although each individual may recognize that the cumulative effects of singly salutary government interventions in the market may make us all worse off, the individual may nonetheless find it rational to refrain from exercising restraint when it comes to those particular interventions which promise to advance his own goals or those interventions which, considered in isolation, may benefit all. . . .

More radical critics of the market might protest at this point that the need to show that inefficiencies due to government intervention in the market would not equal or exceed the inefficiencies they are designed to eliminate is a serious problem only if one proposes to reform rather than abolish the market system. The problem of weighing these government inefficiencies does not arise for more fundamental proposals to replace the market with an alternative system. The fact that intervening in inefficient market processes may produce equally worrisome inefficiencies may be a sign that the whole system should be scrapped, not a vindication of a noninterventionist policy.

If this radical challenge to the market on grounds of efficiency is to have force, however, *the alternative system must be explained in sufficient detail to make efficiency comparisons between it and the market system possible.* The argument would then have to be that the alternative system would provide a closer approximation to the efficiency of the ideal market than the nonideal market system we now have or are likely to have through modifying the current system. . . .

Lack of Congruence Between Individual Well-being and the Satisfaction of Preferences Revealed in the Market [A]nother fundamental condition for efficiency in the ideal competitive market is the assumption that satisfying an individual's preferences, as the latter are revealed in his exchanges in the market, makes him better off. . . . This assumption can be understood either as resting on the claim that 'well-being' simply means

satisfaction of revealed preferences or upon the empirical claim that in general the preferences an individual reveals in his market behavior are the most reliable indicator of what will in fact make him better off. As a meaning claim, the assumption must be rejected. It makes perfectly good sense to ask whether satisfying a particular preference in fact makes one better off. One reason why this is so is that, at least in the less than perfect conditions of actual markets, individuals can be and are mistaken about what is most conducive to their own good, either because they are less than perfectly knowledgeable or less than perfectly rational, or both. The empirical version of the assumption is more plausible but far from uncontroversial.

Perhaps the most potentially serious criticism of the empirical version of the assumption and hence of the efficiency argument for the market which relies upon it, is the Marxist objection that the market process itself tends to generate "distorted" preferences whose satisfaction does not promote the individual's well-being.⁸ Hence even if the market does a good job of satisfying the preferences people express in it, outcomes will not be efficient according to that formulation of the Pareto Optimality Principle which focuses on well-being.

Here I will consider only one especially serious attempt to fill out this Marxist objection. G.A. Cohen has argued that advanced capitalism produces a lack of congruence between well-being and the satisfaction of preferences expressed in the market because it has a tendency toward expanding output and consumption at the expense of reducing toil.⁹ Like Marx, Cohen acknowledges that capitalism greatly increases productivity—that the ratio of outputs to inputs is much greater in capitalism than in premarket modes of production, such as feudalism. Increased productivity provides an opportunity either to reduce toil (roughly unwanted labor activity), while maintaining the same level of output; or to expand output, without reducing toil; or to strike some balance between reduced toil and expanded output.

However, Cohen argues, the same competitive self-interest that results in greater productivity produces a bias toward continual expansion of outputs and toward encouraging (through advertising) continually increasing consumption of what is produced. Now at some point, increased freedom from toil (that is, leisure) is rationally preferable to increased consumption. Advanced capitalism is irrational (or, as an economist would say, inefficient) because it has an inherent tendency to push output and consumption past the optimal trade-off point between leisure and toil.

This argument, however, is far from convincing. First of all, at most it establishes that advanced capitalism has a *tendency* toward irrationality. It does not rule out the possibility that this tendency will be held in check by opposing tendencies.¹⁰ Two obvious opposing tendencies are competition for labor and labor union activity. Labor unions can and do fight for shorter working hours and more pleasant work environments. And, if firms must compete for labor, one way to attract employees is to offer less toilsome work, either by shortening working hours or by making work more intrinsically rewarding. Further, even if firms do not advertise di-

rectly for increased leisure . . . nonetheless, advertisements for leisure products and services may indirectly encourage people to increase leisure time if only by leading them to reflect upon whether their current patterns of consumption permit them to take advantage of desirable leisure products and services. For example, if I see an advertisement for golf clubs or for fishing rods which persuasively portrays the pleasures of outdoor sports, I may be prompted to reconsider my decision to take a higher-paying but more time-consuming job which would not permit me to engage in these recreational activities.

Furthermore, it can be argued that even if advanced capitalism has a tendency toward inefficient trade-offs between leisure and toil, this tendency is not unique to capitalism. There is considerable empirical evidence to suggest that Soviet planners continue to expand output at the expense of individual well-being in order to support a massive military establishment both at home and in client countries and in order to compete in a "growth race" with the United States and other nonsocialist countries such as West Germany. . . .

There is, however, a more fundamental incompleteness in the Marxist objection. That objection assumes that well-being is a function of at least two factors, leisure and consumption of goods and services, and then argues that the market system tends to increase consumption at the expense of leisure. Yet even if it can be shown that this tendency will not be checked in capitalism, the result is a telling argument against the market system *only if there is a feasible alternative system which is also highly productive*. In other words, demonstrating that a nonmarket system would not tend to increase toil beyond the optimal leisure/toil trade-off point is not sufficient to establish the superiority of that system unless that system can be shown at least to approach the productivity of the market system. For if the alternative is sufficiently unproductive, the market system may be preferable, on grounds of efficiency, even if the market system fails to achieve the optimal leisure/toil trade-off. . . .

Unemployment Critics of the market are quick to point out that the foregoing list of sources of inefficiency is incomplete because it fails to acknowledge the problem of unemployment. Unemployment, . . . is an instance of aggregative inefficiency—a failure to utilize all available productive resources, in this case labor power.

The simple economic models used to show that the ideal market system will reach a Pareto Optimal equilibrium state disguise the problem insofar as they *assume* full employment. In other words, when it is demonstrated that production and exchange in the ideal market result in a Pareto Optimal equilibrium it is assumed that everyone whose welfare is taken into account in the statement that "no one can be made better off without making someone worse off" is actually participating as an exchanger and/or producer in the system.

There are two ways to understand the charge that unemployment is a serious inefficiency of the market system. The less radical, but nonetheless important interpretation is that even if the ideal market system

would reach an equilibrium in which there is full employment (of all who wish to work), imperfect, real world market systems suffer from grave inefficiencies due to unemployment. The second, more radical interpretation of the charge is that even in the ideal market system there is no guarantee that there will be full employment at equilibrium. . . .

On the second, more radical interpretation, the objection is that even in a perfectly competitive market the equilibrium state need not be a state of full employment. So even if departures from perfect competition just mentioned could be eliminated, unemployment might still exist.

The mere possibility that a perfectly competitive market equilibrium could coexist with unemployment is not, of course, a telling objection. However, once the reasons for concluding that this possibility exists are understood, the objection can be stated much more strongly as the charge that *there is no reason to believe that full employment will be achieved at equilibrium*, even in a perfectly competitive market.

The radical version of the unemployment objection can best be understood as a criticism of the traditional neoclassical economists' argument to show that even if unemployment did occur at some point, a perfectly competitive system would automatically move to a full-employment equilibrium state, without any need for government intervention. The neoclassical argument, in its simplest form, is as follows. Suppose that at present there is some unemployment. If there is free competition for jobs, then (since the supply of labor relative to the demand for it is high), the price of labor, that is, wages, will decrease. As wages decrease, production costs decrease. In attempting to maximize profits, firms act so as to make the marginal cost of their products (the cost of producing one additional unit of the product) equal to the price of the product. In order to equalize marginal costs and price, firms expand production. But expanding production requires hiring more workers. Therefore unemployment is reduced.

Marx and other early critics of capitalism pointed out a problem which this argument overlooks: the problem of *decreasing aggregate demand*, that is, the total demand for what is produced in the economy. Firms will not expand production if they notice that the additional output is not being bought by consumers. But if wages are sufficiently low and if a large enough portion of the consuming public pays for its consumption through wages, then aggregate demand will be insufficient, expansion of production will not occur, additional workers will not be hired, and unemployment will persist.

The neoclassicists had a reply which seemed to rule out the possibility that expansion would be blocked by deficient aggregate demand. Relying upon the work of the eighteenth-century economist J. B. Say, they noted that since at market equilibrium every good produced generates an equivalent value of income, a shortfall of aggregate demand could not exist at equilibrium. So far as unemployment results from insufficient aggregate demand, then, the market system, if left to function freely, would eventually eliminate unemployment.

This last argument contains a hidden assumption which was chal-

lenged by John Maynard Keynes in *The General Theory of Employment, Interest, and Money*. Keynes argued that even if every good produced generates income of equivalent value, the proportion of income saved relative to the proportion invested may vary. But continued expansion of production (and hence the reduction of unemployment) depends upon the proportion of income devoted to investment. Unless enough of the income from what is produced is "plowed back" into production, not enough expansion will occur to overcome the problem of insufficient aggregate demand and unemployment will continue to exist. Keynes concluded that there is no reason to believe that precisely the correct relationship between savings and investment will be achieved at equilibrium to ensure full employment. His proposed *solution* to the problem of unemployment (which should be carefully distinguished from his critique of the neoclassical view) is government intervention in the form of fiscal and monetary policies to stimulate aggregate demand. Though Keynes was concerned with the problem of unemployment in real world market systems, it is important to emphasize that his criticism of the neoclassical argument for full-employment market equilibrium does not depend upon the assumption that real world market systems are not perfectly competitive. . . .

NOTES

1. Any standard microeconomic textbook provides an explanation of why the general equilibrium of production and exchange in the ideal market is Pareto Optimal. The usual, and perhaps the most illuminating method of explanation employs a graphic representation which combines the Edgeworth Box and indifference curves. . . .
2. F. A. Hayek, *The Constitution of Liberty*, pp. 54-70; Hayek, *Individualism and the Economic Order*, pp. 119-208.
3. J. Gray, "F. A. Hayek and the Rebirth of Classical Liberalism," p. 32.
4. B. Mandeville, *Fable of the Bees: Or Private Vices, Public Benefits*; and A. Smith, *The Wealth of Nations*, p. 14.
5. For three of the most influential treatments of the problem of providing public goods, see J. M. Buchanan, *The Demand and Supply of Public Goods*; G. Hardin, "The Tragedy of the Commons," *Science* (December 13, 1968); and M. Olson, *The Logic of Collective Action*.
6. A clear presentation of economic analyses of principles of compensation is found in J. G. Murphy and J. L. Coleman, *The Philosophy of Law: An Introduction to Jurisprudence*, chapter 5. See also M. Kuperberg and C. Beitz, eds., *Law, Economics, and Philosophy: A Critical Introduction with Application to the Law of Torts*.
7. H. Demsetz, "Toward a Theory of Property Rights," pp. 347-59.
8. A. E. Buchanan, *Marx and Justice: The Radical Critique of Liberalism*, pp. 21-35. The author develops an account of the role of the concept of distorted desires in Marx's historical materialist theory of consciousness and in his evaluation of capitalism.
9. G. A. Cohen, "Labor, Leisure, and a Distinctive Contradiction of Advanced Capitalism," in G. Dworkin, G. Bermant, and P. G. Brown, eds., *Markets and Morals*, pp. 107-36.
10. *Morals and Markets*, p. 8.