

Markets and Freedoms: Achievements and Limitations of the Market Mechanism in Promoting Individual Freedoms



Amartya Sen

Oxford Economic Papers, New Series, Vol. 45, No. 4 (Oct., 1993), 519-541.

Stable URL:

<http://links.jstor.org/sici?sici=0030-7653%28199310%292%3A45%3A4%3C519%3AMAFAAL%3E2.0.CO%3B2-H>

Oxford Economic Papers is currently published by Oxford University Press.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/oup.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is an independent not-for-profit organization dedicated to creating and preserving a digital archive of scholarly journals. For more information regarding JSTOR, please contact support@jstor.org.

MARKETS AND FREEDOMS: ACHIEVEMENTS AND LIMITATIONS OF THE MARKET MECHANISM IN PROMOTING INDIVIDUAL FREEDOMS

By AMARTYA SEN

1. Introduction

USING the perspective of individual freedom, I argue in this paper for a reinterpretation of what a mechanism of competitive markets is supposed to do, and a reassessment of what it can be expected to achieve. Forceful use is often made of the language and rhetoric of ‘freedom’ in defending the market mechanism, e.g., in the form of claims that the market system makes people ‘free to choose’, to use Friedman and Friedman’s (1980) evocative words. But the economic theory of market allocation has tended to be firmly linked with a ‘welfarist’ normative framework.¹ The successes and failures of competitive markets are judged entirely by achievements of individual welfare (for example, in terms of utility-based Pareto optimality), rather than by accomplishments in promoting individual freedom.

It is natural to suspect that there must be some links between welfare-achievements and freedom-achievements (and also between failures in the respective areas), but we have to examine and scrutinize those links. We need to explore different aspects of individual freedom and their links, if any, with the nature of competitive market equilibria. The paper distinguishes between different aspects of freedom, involving in particular (i) substantive opportunities, and (ii) process considerations, such as decisional autonomy and immunity from encroachments. The competitive market mechanism is examined in the context of each of these considerations.

In some respects the freedom-based approaches are more ancient than that of ‘economic efficiency’ (defined as efficiency in the space of utilities), but it is the latter that has by now become the standard procedure in economic theory for assessing what the market does or does not accomplish. This shift in focus is very clearly identified by John Hicks:

The liberal, or non-interference, principles of the classical (Smithian or Ricardian) economists were not, in the first place, economic principles; they were an application to economics of principles that were thought to apply to a much wider field. The contention that economic freedom made for economic efficiency was no more than a secondary support. . . . What I do question is whether we are justified in forgetting, as completely as most of us have done, the other side of the argument (Hicks 1981, p. 138).

¹ See Hicks (1939), Samuelson (1947), Arrow (1951b), Debrue (1959), McKenzie (1959), Arrow and Hahn (1951), among others. For a helpful introduction, see Koopmans (1957).

This paper is partly an attempt to follow the lead suggested by Hicks, to re-evaluate the market mechanism in terms of its contributions, and limitations, in promoting individual freedoms.² Mixing blame with praise is, in general, fairly inescapable in evaluating the market mechanism,³ and a freedom-based assessment need not be radically different in that respect. But the questions that are central in this exercise relate to the particular respects in which praise and blame are deserved, the reasons for these judgments, and the *basis* of the commendations and condemnations.

In the next section, the basis of the standard welfarist evaluation of the achievements of competitive market equilibria is briefly discussed. In Section 3, different aspects of freedom are distinguished and the conceptual underpinnings of this inquiry are explored, commenting on the distinct elements in the evaluative bases of individual freedoms. The process aspect of freedom, including consideration of autonomy, immunity, libertarian rights and negative freedoms, is further discussed in Section 4, with an analysis of the role of the market mechanism in those contexts.

The next two sections of the paper deal specifically with the opportunity aspect of freedom. Section 5 is devoted to conceptual issues in the connection between the opportunity aspect of freedom and the substantive scope for preference fulfilment. The focus here is on a weak kind of efficiency of freedoms. It is argued that the shared importance of individual preferences provides the basis of a connection between the opportunity aspect of freedom and the nature of the competitive markets (even though that connection is made somewhat more complex by the need to go well beyond the commodity space to assess opportunity-freedoms). In Section 6, which is divided into three brief subsections, the claim of welfare-efficiency of competitive market equilibria is replaced by a related, but substantially distinct, claim of their weak efficiency in opportunity-freedoms.

Section 7 deals with the limitations of the market mechanism in terms of the different affirmative claims related to individual freedoms. In the final section, some concluding remarks are made on the main themes covered in this paper.

2. Markets and welfarist efficiency

The foundational evaluation of the market mechanism in modern economics is based to a great extent on the so-called 'fundamental theorem of welfare economics'.⁴ This deals only with markets that are perfectly competitive and it concentrates on what happens when the markets are in equilibrium rather than in a state of imbalance. The theorem has two parts. The first proposition

² On related issues, see Hayek (1960), Nozick (1974), and Buchanan (1986). See also the symposium, arranged by the European Economic Association, on the perspective of individual freedom as a general basis of economic assessment: Kornai (1988), Lindbeck (1988) and Sen (1988).

³ See Hahn (1982) and Sen (1987).

⁴ These basic results were established by Arrow (1951b) and Debreu (1959). See also McKenzie (1959) and Arrow and Hahn (1971). Extensions of the basic results to cases involving public goods have been discussed by Groves and Ledyard (1977) and Green and Laffont (1979), among others.

(I shall call it the ‘direct theorem’) is that under certain specified conditions (including the absence of ‘externalities’, i.e., non-market interdependences), every competitive market equilibrium is ‘Pareto efficient’ (also called ‘Pareto optimal’). A state of affairs is defined as Pareto efficient if it is the case that compared with it, no one’s utility can be raised without reducing someone else’s utility. That is, the ‘direct theorem’ states that under the conditions specified, no non-conflicting general improvements (judged in terms of individual utilities) can be made, starting from any competitive market equilibrium.

The second part of the theorem is a bit more complex. It says that given some conditions (including no externalities, but also the absence of significant economies of scale), every Pareto efficient outcome is a competitive equilibrium at some set of prices and with respect to some initial distribution of the given resources. That is, no matter which Pareto efficient state we specify, it is possible to have a competitive market equilibrium yielding precisely that state, by choosing the initial distribution of resources appropriately. This ‘converse theorem’ has typically been seen as a more important claim in favour of the market mechanism.

The ‘direct theorem’—that all competitive market equilibrium are Pareto efficient—may not appear to be a terrific trophy for the market mechanism since it is hard to see Pareto efficiency as sufficient for social optimality. Pareto efficiency is completely unconcerned with distribution of utilities (or of incomes or anything else), and is quite uninterested in equity. On the other hand, the motivation behind the ‘converse theorem’ relates to the necessity of Pareto efficiency for social optimality. Given consequentialist welfarism (that is exclusive reliance on individual utilities to judge social goodness and right actions),⁵ it is not hard to argue that if a change would move everybody to higher utility (or someone to higher utility, with everyone having at least as much utility), then that change should be made. If this is accepted, then a social optimum must be *inter alia* Pareto efficient, since a state that is Pareto inefficient can be socially improved. This elementary presumption gives the second part of the theorem an immediate relevance. Given consequentialist welfarism, no matter how we identify the social optimum, we can get to that social optimum (one of the Pareto efficient points) through a competitive market equilibrium by having the required initial distribution of resources.

However, this way of looking at the ‘converse theorem’ is more than a little deceptive, even within the limitations imposed by exclusively welfarist evaluation. To use the competitive market equilibrium to achieve any social optimum, we have to get the initial distribution of resources right, and depending on how equity-conscious our social objectives are, this could require a total reallocation of ownership patterns from whatever pattern we may have inherited historically.

The ‘converse theorem’, thus, belongs to a ‘revolutionary’s handbook’.⁶ I

⁵ On the exact characterizations of ‘welfarism’ and ‘consequentialism’, see Sen and Williams (1982): “Introduction”.

⁶ For a fuller discussion of this diagnosis see Sen (1987).

am not bothered here by the sociological fact that enthusiastic advocates of the market mechanism are typically not particularly revolutionary in demanding radical redistributions of ownership. More immediately relevant is the recognition that if we are not able, for political, legal or any other reasons, to rearrange the resource distributions freely, the converse theorem does not guarantee even the limited achievement of Pareto efficiency for any given initial distribution of resources. In contrast, the 'direct theorem' does guarantee just that—it ensures something rather solid here and now, even if that achievement is far from adequate.⁷

3. Concepts of freedom: process and opportunity

I turn now to the demands of freedom. Freedom has many distinct aspects, and there is little prospect of obtaining one real-valued index of freedom that will capture all the aspects adequately. In particular, freedom has at least two valuable aspects, which I shall respectively call 'the opportunity aspect' and 'the process aspect' of freedom. I have argued elsewhere that a comprehensive assessment of freedom must take note of both these aspects and the irreducible importance of each of these respective features.⁸

First, freedom gives us the opportunity to achieve our objectives—things that we have reason to value. The opportunity aspect of freedom is, thus, concerned with our actual capability to achieve. It relates to the real opportunities we have of achieving things that we can and do value (no matter what the process is through which that achievement comes about).

Second, importance is also attached to the process of autonomous choice—having the levers of control in one's own hands (no matter whether this enhances the actual opportunities of achieving our objectives). The process aspect of freedom is concerned with the procedure of free decision by oneself.

A straightforward example of complete concentration on 'the opportunity aspect' of freedom can be found in the implicit attitude to freedom in consumer theory on the assessment of 'budget sets' (Samuelson 1938, 1947; Hicks 1939). Since this approach takes note of freedom only in instrumental terms (focusing on the best that we can actually achieve), the freedom to choose any element of the 'budget set' is valued, by implication, exactly at the value of the chosen—or 'most preferred'—element of that set; the other elements of the

⁷ There is also an informational problem in using the 'converse theorem' to achieve social optimum. The informational economy of the market mechanism does not cover the information needed to ascertain the set of feasible market outcomes and to pick the socially best from that class. Indeed, it may not be in the interest of many (particularly those who would end up losing property and resources in this radical marketization programme) to cooperate in this information gathering process. The programme of revolutionary equity through the market mechanism may, thus, have epistemic as well as political barriers. For a discussion of this problem of 'informational incentives', see Sen (1987, pp. 36–8).

⁸ The distinction and its extensive implications were discussed in my Arrow Lectures ('Freedom and Social Choice'), given on May 7–8, 1991, at Stanford University (to be published). This section of the present paper closely relates to those lectures.

menu do not ultimately matter. This way of seeing the opportunity aspect of freedom entails a fairly simple view of freedom in the absence of uncertainty.

This approach can, however, be importantly extended by introducing uncertainty about future tastes, as investigated by Koopmans (1964) and Kreps (1979, 1988), with the result that having a variety of options is valued substantively, but still for entirely instrumental reasons (to wit, the variability of future tastes). Their formulations of ‘the preference for flexibility’—and thus for substantive freedom—is concerned solely with the opportunity aspect of freedom, seen in terms of what might turn out to be best under different cases of future tastes. In Kreps’s analysis, the assessment of a menu of future options is given by the respective expected utilities, taking note of the various utility functions the person might possibly have in the future, weighted by their respective probabilities.

The Koopmans–Kreps approach is extremely important for any substantive theory of freedom, since future uncertainty is a powerful reason for working towards enhancing freedom of choice.⁹ However, since uncertainty will not be introduced in this paper, the Koopmans–Kreps extensions of the instrumental view of the opportunity aspect of freedom will not come into their own here. In the absence of uncertainty, the maximal-opportunity view assesses a set of options simply by the value of the maximal element (or elements) in that set.

It is, however, possible to take a somewhat broader view of the ‘opportunity aspect’ even in the absence of uncertainty and pay some attention to the ‘range’ of choice (in addition to the most preferred alternative that can be chosen). We might value the diversity of opportunities, and not reduce the assessment of opportunities entirely to the value of maximal achievement, even though the maximal value must figure substantively in that reckoning. How this might be done will be considered in Section 5.

In contrast with the opportunity aspect, the process aspect has been emphasized by other writers. Friedrich Hayek (1960) has argued for the process aspect in quite a pure—and rather extreme—form in a particularly eloquent passage in *The Constitution of Liberty*:

... the importance of our being free to do a particular thing has nothing to do with the question of whether we or the majority are ever likely to make use of that possibility. ... It might even be said that the less likely the opportunity to make use of freedom to do a particular thing, the more precious it will be for society as a whole. The less likely the opportunity, the more serious will it be to miss it when it arises, for the experience it offers will be nearly unique (Hayek 1960, p. 31).

There is perhaps an element of ‘contrariness’ here in Hayek’s proposal of attaching more value precisely to those opportunities that are least likely to be used. But surely Hayek is right to argue that being ‘free to do a particular thing’ can be important for us, even when we are unlikely to use that freedom. This consideration relates to the process aspect of freedom—Hayek himself has

⁹ I have tried to go into these issues further in my Arrow Lectures (‘Freedom and Social Choice’).

particularly emphasized the importance of being unrestrained in the exercise of individual liberty. The process aspect includes considerations that may not figure in the accounting of the opportunity aspect.¹⁰

The process aspect, in its turn, would include several distinct features, in particular, (i) decisional autonomy of the choices to be made, and (ii) immunity from interference by others. The former is concerned with the operative role that a person has in the process of choice, and the crucial issue here is self-decision, e.g., whether the choices are being made by the person herself—not (on her behalf) by other individuals or institutions. This requires the identification of the proper domain of autonomous decisions.

On the other hand, to delineate the content of *immunity*, it is necessary to define what constitutes ‘interference’, and a good deal of libertarian philosophy has been concerned with that question. Freedom as immunity can be seen as a ‘negative’ idea—the absence of encroaching activities. It relates closely to what has been called ‘negative freedom’. Indeed, the concept of negative freedom can be related to the ‘immunity’ component in the ‘process’ aspect of freedom, and I shall follow that convention here.¹¹

However, the distinction between ‘positive’ and ‘negative’ freedoms, which has been powerfully explored by Isaiah Berlin (1969), can be interpreted in several distinct ways.¹² Berlin’s own classification takes a much more demanding view of negative freedom. In his analysis, negative freedom takes note of the various parts that others play in making a person unable to do something, and therefore goes well beyond the ‘immunity’ component of the process (for example, poverty and starvation resulting from insufficient demand in the labour market could then be seen as a violation of negative freedom). Correspondingly, Berlin sees positive freedom in narrower terms, particularly in terms of overcoming the barriers that come from ‘within’ the person, rather than from outside.

Others have tended to see positive freedom much more broadly—in terms of what one is free to do taking everything into account, including interference or help by others, as well as one’s own powers and limitations.¹³ This is, in fact,

¹⁰ Hayek’s reasoning also suggests that in assessing even the opportunity aspect we should not take an entirely instrumental view. As will be argued in Section 5, even though the opportunity to achieve what we prefer most among the available alternatives may be the central concern in evaluating the opportunity aspect, nevertheless a person might not completely neglect the presence of non-superior and non-chosen alternatives

¹¹ There are, however, close connections between the assessment of processes and the understanding of the corresponding outcomes, even in the context of immunity. This has been a matter of particular concern in the ‘social choice’ theoretic literature on liberty. See, for example, Sen (1970, 1983a, 1992a), Hammond (1982), Suzumura (1983), Wriglesworth (1985), Riley (1987), Gaertner *et al.* (1992).

¹² Systematic distinction between ‘positive’ and ‘negative’ liberty was also made by Guido De Ruggiero, the Italian historian of ideas, in his *Storia del liberalismo europeo* (1925), though he drew the line somewhat differently from the way Berlin does. I am most grateful to Stefano Zamagni for directing me to Ruggiero’s study.

¹³ On various recent uses of the concept of ‘positive freedom’, see Dworkin (1978), Dasgupta (1982, 1986), Sen (1985b, 1988), Hamlin and Pettit (1989), Helm (1989), among others. On related distinctions see also Kanger (1971), Nozick (1974), Lindahl (1977), Dworkin (1985), Raz (1986).

the direction in which T. H. Green (1889) had pointed. Recent uses of the distinction between negative and positive freedoms have tended to be focussed particularly on the role of immunity in negative freedom.¹⁴ While I shall use the expression 'negative freedom' in that, narrower, sense, *viz.* as immunity from interference, I need hardly add that nothing substantial, ultimately depends on how the various relative considerations are classified, provided all of them receive attention.

To conclude this section on concepts of freedom, we have to be concerned with at least two distinct aspects of freedom, *viz.* (i) the opportunity aspect, and (ii) the process aspect. The opportunity aspect must pay particular attention to the opportunity of achieving the best that can be achieved, but may extend that concern by taking some supplementary note of the range of opportunities offered. The process aspect, being concerned with the freedom of the person's decisions, must take note of both (iia) the scope for autonomy in individual choices, and (iib) immunity from interference by others.

4. The process aspect: immunity and autonomy

Following the discussion in the last section, I shall be particularly concerned with three distinct facets of freedom:

- (i) opportunity to achieve.
- (ii) autonomy of decisions; and
- (iii) immunity from encroachment.¹⁵

The role of the market mechanism in the context of each will have to be examined.

The libertarian conception of 'rights' (as outlined, for example, by Robert Nozick 1974) incorporates both (ii) and (iii), but it has, in the usual formulations, less use for the first.¹⁶ There is indeed a close correspondence between libertarian philosophy and 'the process aspect' of freedom. In particular, the idea of immunity from encroachment is often seen as the core of 'negative freedom' and a central aspect of the libertarian theory of rights.

I shall presently pursue the implication of this approach for assessing the market mechanism, but before that I would like to make a general point, which is sometimes missed, about the correspondence between libertarian rights (particularly the right against encroachment) and the idea of negative freedom (see in terms of freedom from encroachment). It is sometimes thought that negative freedom (in the form of freedom from interference) cannot be defined without a prior acceptance of libertarian rights. However, while libertarian rights and negative freedoms share a common domain, the endorsement of the force and priority of libertarian 'rights' is not, in fact, necessary to define

¹⁴ See, for example, Dworkin (1978, Essay 12).

¹⁵ They correspond respectively to considerations (i), (iia), and (iib), discussed in Section 3.

¹⁶ See Buchanan (1986) for a broader view, giving more role to the opportunity aspect of freedom.

negative freedoms, or to see them to be, *inter alia*, important. Certain types of interpersonal interferences can be placed in a separate category—that of ‘encroachment activities’—and this identification can be taken as the basis of characterizing the domain of negative freedom, without necessarily pre-asserting that people have an unequivocal right not to have such encroachment. In this way of characterizing the connection, neither negative freedoms nor libertarian rights would be ‘prior’ to the other (both would draw on the shared concept of encroachment), and negative freedoms can indeed be identified and valued without full acceptance of libertarian ‘rights’.¹⁷

If the libertarian rights to exchange and transact freely are to be protected, then market activities must be permitted without let or hindrance by others (including the state). Markets are then defensible on grounds of the rights that people have (*viz.* that they should be free to transact), rather than because of their welfare-generating effects. Thus, if these rights are accepted as fundamentally important (as for example in the libertarian theory outlined by Nozick 1974), then the entire approach to the evaluation of the market mechanism may have to change. Markets would then be justified by antecedent rights rather than by consequent outcomes or utilities (such as Pareto efficiency).

While the assumption of the libertarian rights makes the defence of markets unqualified and uncomplicated, it also leaves open the question of the acceptability of that assumption. The libertarian line of reasoning is independent of outcomes, but the persuasive power of that line of reasoning cannot really be independent of results. The issue becomes particularly important when the consequences resulting from the exercise of libertarian rights and market allocation are especially poor in terms of individual well-being, or in terms of individual freedom judged in the perspective of ‘opportunity to achieve’. Indeed, it is possible for even large-scale famines to occur without violating anyone’s libertarian rights and without departing from the operation of a free market mechanism.¹⁸ The outcome-independent assertion of libertarian rights is, thus, open to severe questioning in terms of ethical acceptability.¹⁹

However, even when the alleged libertarian rights are not accepted as unqualified rights, the general case for discouraging encroachment activities—

¹⁷ Perhaps there is some advantage in taking freedoms rather than rights as the starting point of evaluative analysis. This is partly because freedom is, in some ways, a broader concept than rights, but also because freedom is less vulnerable than the idea of rights, to the suspicion (forcefully discussed by Bentham 1789 and Marx 1843, 1844) that a post-legal, contingent concept is being used with pre-legal, universalist pretensions. In this view, rights depend on social and political arrangements, and these arrangements themselves require a foundational justification—one that can hardly be provided by the rights that emerge from those arrangements. Arguments can be presented on each side of this debate, and I shall not attempt here to resolve these complex issues.

¹⁸ On this see Sen (1981) and Drèze and Sen (1989). Famines can be caused by insufficient entitlements of substantial sections of the population, without any violation of libertarian rights and freedoms of ownership and exchange.

¹⁹ Nozick (1974) himself makes an exception in the case of ‘catastrophic moral horrors’, thereby restricting the domain of his libertarian theory. See also Buchanan (1986) and Nozick (1989).

and violations of negative freedoms—may remain.²⁰ The market mechanism has an obvious role in supporting negative freedom from encroachment, and this role can well be acknowledged along with other features of the market mechanism. Recognizing the importance of negative freedom is a much more general ethical position than asserting the complete priority of the libertarian right to unqualified immunity.

In fact, the market mechanism has a role in protecting ‘autonomy of decisions’ as well as ‘immunity from encroachment’. In a competitive market, the levers of decision and control are in the hands of the respective individuals, and in the absence of particular types of ‘externalities’ (dealing with the control of decisions), they are left free to operate them as they choose. Thus, decisional autonomy as well as encroachment immunity are constitutive of the competitive market mechanism without externalities.

Emphasizing these aspects of freedom would give an immediate status to the markets—not conditional on good performance in terms of other achievements, such as utilities or preference-fulfillments. In making a composite judgment on the ‘overall’ role of the market mechanism in promoting freedoms, these process aspects would have to be considered along with assessments of the success of the market mechanism in advancing economic opportunities and the freedom to achieve.

5. The opportunity aspect: preference and freedom

In the traditional ‘libertarian’ literature, it is the process aspect that has tended to receive much of the attention. Some have, in fact, argued in favour of restricting the use of the term ‘freedom’ to its negative interpretation only. On the other hand, many writers—people as diverse as Aristotle, Adam Smith, Karl Marx, Mahatma Gandhi and Franklin Roosevelt (to name a few)—have been much concerned with the substance of freedom and the actual opportunities that people have, not just with procedures and processes. It seems reasonable to argue that if we really do attach importance to the actual opportunity that each person has, subject to feasibility, to lead the life that he or she would choose, then the opportunity aspect of freedom must be quite central to social evaluation.

The market mechanism tends to do well, as we saw, in terms of the process aspect (involving decisional autonomy and encroachment immunity), in the absence of particular types of externalities, and the concentration now has to be specifically on its performance in terms of opportunity-freedom. How may we evaluate opportunity-freedom? The extent of a person’s opportunity to achieve must relate to the set of alternative achievements from which he or she can choose any one. This raises two questions:

- (i) In terms of what criteria do we evaluate such a set of achievements?

²⁰ On this question, see Sen (1985b).

(ii) In what 'space' are achievements considered, that is, achievement of what?

The former question is taken up first.

Several different classes of axioms for comparisons of achievement-sets have been suggested in the literature.²¹ One central issue relates to the relevance of the individual's preferences and choices in the evaluation of his or her opportunity-freedom.

One way of putting the question is: how does opportunity-freedom relate to preference? This formulation may be somewhat ambiguous since the term 'preference' is used in so many different senses.²² There is considerable evidence that the preferences of people living in societies are not geared exclusively to the pursuit of personal interests.²³ The sense that would be particularly relevant here is the one initially outlined by Kenneth Arrow in discussing the informational basis of social welfare functions. Arrow (1951a) defines the individual preference ordering as referring broadly to 'the values of individuals rather than to their tastes' (p. 23), reflecting all the values that may influence choice, incorporating *inter alia* the person's 'general standards of equity' and 'the highly important socializing desires' (p. 18). This is not 'preference' in the narrow sense of reflecting the person's self-interest, which is frequently the sense that is invoked in standard microeconomic theory. What Arrow characterized as a person's preference ordering can be seen as the ordering based on his or her values that determines and rationalizes his or her choices.²⁴ In this interpretation, individual preference serves the dual function of reflecting both values and choices of the persons, since they correspond to choice based on overall values. It is this concept that will be used in what follows.

Preference and freedom are sometimes contrasted with each other in terms of their respective contents and demands. Freedom, in this view, is a matter of the size of the set from which one can choose, whereas preference is a matter of the element one would choose from each given set. I would like to argue that this simple contrast between freedom and preference is thoroughly deceptive, especially in the context of opportunity-freedom. The evaluation of the freedom I enjoy from a certain menu of achievements must depend to a crucial extent on how I value the elements included in that menu. The 'size' of a set, or the 'extent' of freedom enjoyed by a person, cannot, except in very special cases, be judged without reference to the person's values and preferences.

For example, it might be tempting to take the number of alternatives in a set—what is called the 'cardinality' of the set—as a preference-independent

²¹ See Sen (1985a, 1991), Suppes (1987), Pattanaik and Xu (1990).

²² On this see Sen (1982a), 'Introduction' and Essays 2 ('Behaviour and the Concept of Preference') and 4 ('Rational Fools').

²³ Motivational diversity can be important for industrial success as well. On different aspects of this question, see, among others, Morishima (1982), Akerlof (1984), Dore (1987), Aoki (1989), Wade (1990).

²⁴ Compare Davidson's (1980) discussion of explanation of behaviour, involving rationalization of actions in terms of objectives. The concept of freedom used here is that of 'agency freedom'—the overall freedom to achieve what one would promote—rather than the narrower notion of 'well-being freedom'—the freedom to promote one's well-being (on that distinction, see Sen 1985b).

way of judging the ‘extent’ of freedom associated with any set of alternative achievements.²⁵ But that can lead to most counter-intuitive results, forcing us to accept that having a choice over three alternative achievements that are seen as ‘bad’, ‘terrible’ and ‘disastrous’ gives us exactly as much freedom as a choice over another three alternative achievements which are seen as ‘good’, ‘terrific’ and ‘wonderful’. If the latter set is seen as giving us more freedom to achieve—giving us more opportunity to live the way we would choose to live—then this is precisely because our preferences are important in the evaluation of freedom.

I have tried elsewhere (Sen 1985a, 1991) to discuss the type of axiomatics that is called for in evaluating the freedom to achieve (or opportunity-freedom), and in relating it to preferences (i.e., choices based on values) of the persons respectively concerned. I shall not go more into the technicalities here, but must note that comparisons of opportunity-freedom must frequently take the form of incomplete orderings. While some set comparisons would be obvious enough, others would remain undecidable.

A basic criterion of opportunity-freedom comparison of different achievement-sets is the following (see Sen 1985a).²⁶

Axiom R Set A offers at least as much opportunity-freedom as set B , denoted $AR^F B$, if there is a one-to-one correspondence between some subset A^* of A and the other set B such that every element of set A^* is regarded as no worse than the corresponding element of set B .

Since the relationship would typically be quite incomplete, the strict ranking is best defined separately also, and one that may command some general support, in the absence of uncertainty, is (see Sen 1991):

Axiom P Set A offers strictly more opportunity-freedom than set B , denoted $AP^F B$, if in the one-to-one correspondence between the subset A^* and B defined in Axiom R , every element of A^* is strictly preferred to its corresponding element.

²⁵ See Pattanaik and Xu (1990) for an interesting and important axiomatization of the assessment of freedom exclusively in terms of the number of alternatives in the set from which one can choose. The basic axiom takes unit sets such as $\{x\}$, $\{y\}$, as all having the same amount of freedom (to wit, none), irrespective of the individual’s preferences over x , y , etc. From that premise, the rule of counting the elements can be derived on the basis of some supplementary axioms. An alternative axiomatization of the ‘number counting’ assessment of freedom is presented in Sen (1991)—not as a defence, but as a discriminating basis for identifying what may be ‘wrong’ with this way of seeing freedom. On the analytical and evaluative aspects of such axiomatization, see Pattanaik and Xu (1990) and Sen (1991).

²⁶ Two significant qualifications are in order here. First, there is an important problem of ‘variety’ (i.e., the dissimilarity between one alternative and another) that is being ignored here. One set may be valued above another on grounds of its offering ‘more variety’ of alternatives, and this consideration cannot be easily captured in terms of one-by-one comparison of the respective elements of the two sets. This issue is discussed by Pattanaik and Xu (1990). Second, the entire approach here abstracts from uncertainty, including uncertainty of future tastes (on which see Koopmans 1974 and Kreps 1979, 1988).

These are, at best, sufficiency conditions, and would be much too demanding if they were proposed as being necessary. If we agree to concentrate on the best thing that one can effectively do, we can relax the required conditional in Axiom *P* to one focussing on the superiority of only the most preferred element.

*Axiom P** Set *A* offers strictly more opportunity-freedom than set *B*, denoted $AP^{F*}B$, if (i) *A* offers at least as much opportunity-freedom as *B*, in terms of Axiom *R*, and (ii) some element of set A^* is preferred to every element of set *B*.

A necessary condition for being sure that set *A* has at least as much opportunity-freedom as *B* may be taken to be the requirement that some element of *A* is at least as good as every element in *B*. Similarly, to be sure of an expansion of opportunity-freedom may be seen as requiring that some element of *A* is preferred to every element in *B*. These two requirements, which make the status of the best opportunity determine necessary conditions for improving or maintaining freedom, may be axiomatized together.

Axiom O (relevance of preferred opportunity) To be sure that *A* offers more opportunity-freedom than *B* (alternatively, at least as much as *B*), there must be an element of *A* that is preferred to (alternatively, regarded as at least as good as) all the elements of *B*.

Note that Axiom *O* is a necessity condition, not one of sufficiency. The necessity requirement for strictly 'more' freedom in this axiom corresponds to condition (ii) in Axiom *P**, without demanding (i). According to this axiom, we cannot be sure that a set of alternatives gives a person more opportunity-freedom unless it *inter alia* gives the person an opportunity to get to a better alternative. But the converse is not claimed, i.e., the opportunity of getting to a better alternative need not necessarily give a person more freedom, e.g., if his or her other significant options are curtailed. The possible insufficiency of this condition is one important distinction between Axiom *O* and a purely instrumental view of freedom (including the axiom systems of Koopmans 1964 and Kreps 1979, applied to this special case of no uncertainty). To be sure of an increase in freedom requires the presence of a more preferred alternative, but the presence of a more preferred alternative does not necessarily guarantee an enhancement of freedom.

For example, if a person's strict ordering of valuation (in decreasing order) is given by: *x*, *y*, *z*, then $\{y, z\}$ cannot be placed strictly above $\{x, y\}$, or even above $\{x\}$, in terms of freedom. On the other hand, while $\{x, y\}$ can be placed higher than $\{y, z\}$ with some plausibility (this is, in fact, entailed by Axiom *P* or *P**), it does not follow that $\{x\}$ can be so placed, even though in terms of preference-fulfilment $\{x\}$ is strictly better than $\{y, z\}$. Indeed, if Axiom *P* or *P** is all that is accepted, then $\{x\}$ must not be placed above $\{y, z\}$ in the freedom ranking.

Similar remarks can be made about the weak relation of at least as much freedom. To be sure that *A* gives as much opportunity-freedom as *B*, it is necessary that some element of *A* is at least as good as every element of *B*, but

the latter does not entail the former. It is not surprising that this approach to the evaluation of freedom would tend to lead to partial orderings with frequent cases of incompleteness.

It must also be recognized that Axiom *O* is a weak claim regarding what we can or cannot be sure of. It does not claim that one could never judge that one's opportunity-freedom is increased without there being an alternative in the new menu *A* that is preferred to each element of the old menu *B*. A person might well choose to decide that her opportunities are expanded by the addition of some alternative no better than what she already has in her menu, because it gives her an additional choice (even though it does not make the opportunity of achieving the best she can any better).²⁷ Thus, $\{x, z, z\}$ might be judged to be offering more opportunity-freedom than $\{x, y\}$, even though the most preferred alternative *x* is available in either menu.

What Axiom *O* claims is that we cannot be sure that there is an expansion of opportunity-freedom unless there is an opportunity of getting a better alternative (and even that is a necessary rather than sufficient condition for that judgement, as discussed). The addition of a non-superior option need not be seen as an expansion of opportunity-freedom. The reasoning underlying this position relates to two distinct issues. First, an alternative that is added to what is available need not be particularly interesting from the point of view of the person's opportunity (e.g., having the additional option of being beheaded at dawn, or having another car much like the one already on offer except for a defective gear box). It would thus be a mistake to expect that an addition of options necessarily expands the interesting opportunities to achieve what she wants to achieve.

Second (and more important), even when the additional option is quite good, and may even be just as good as the best that is already available, a person could quite reasonably argue that her opportunities are not strictly expanded by the addition. She could not possibly do better than she did earlier. She could thus judge, without being absurdly idiosyncratic, that her opportunities are not substantively better (though they are not any worse either). In the specific evaluation of opportunity-freedom (as opposed to process-freedom which is a separate matter, considered earlier), it is hard to ignore the possibility of insisting that there is no strict expansion of effective opportunities unless there is really a better option which one could reasonably choose.

There is, thus, some real 'freedom' that people have in making reasonable judgments about opportunity-freedom. The weak form of Axiom *O*—what we can or cannot 'be sure of'—relates to the acceptance of this variability of reasonable judgments. I know of no way of 'forcing' a uniform requirement on the judgements of opportunity-freedom in the case of the addition of a no-better option.

²⁷ A particular class of cases of this type is well axiomatized by Clemens Puppe (1992), relating the motivation to uncertainty of the Kreps-Koopmans kind.

The weak form of Axiom *O* leads to a correspondingly weak idea of efficiency of opportunity-freedom.

Weak efficiency of opportunity-freedom A state of affairs is weakly efficient in terms of opportunity-freedom if there is no alternative feasible state in which everyone's opportunity-freedom is surely unworsened and at least one person's opportunity-freedom is surely expanded.

I turn now to the second question, that of the 'space' in which achievements have to be judged. I have discussed this question fairly extensively elsewhere, arguing that opportunity-freedom cannot be sensibly judged merely in terms of possession of commodities, but must take note of the opportunity of doing things and achieving results one has reason to value.²⁸ The freedom in question must include the freedom to live the way one would like, rather than judging freedom simply by commodity holdings.

The distinction can be very important in dealing with interpersonal comparisons. For example, two persons with identical commodity holdings may have very unequal freedoms to lead the lives they value, because one person may be disabled, or prone to some disease, while the other is not similarly disadvantaged. A disabled person with the same commodity bundle may be just as rich as another, but still lack the capability to move about freely and to achieve other functionings that are affected by that disability. If freedom is judged by our capability to live the way we would choose, then the commodity space is the wrong space for the evaluation of freedom. Even such elementary freedoms as the capability to be well nourished may vary greatly (despite the consumption of same amounts of food) depending on the person's metabolic rate, body size, climatic conditions, parasitic disease, age, gender, special needs (such as those of pregnancy), and so on. Opportunity-freedom is more sensibly judged in terms of capability to achieve valued results than simply by commodity holdings.²⁹

This does not require any reformulation of the axioms already proposed (including Axiom *O*), but the 'space' in which alternative opportunities are considered and preferences are defined would have to be modified from the commodity space to the space of relevant functions and capabilities.³⁰ Correspondingly, preferences too would have to be considered in that space (as rankings of achievements of functioning *n*-tuples) rather than in the commodity space, as in standard general equilibrium theory.

²⁸ On this see Sen (1980, 1987, 1992b).

²⁹ On this and related issues, see Sen (1984, 1985a, 1992b), Sen *et al.* (1987), Dreze and Sen (1989), Griffin and Knight (1989), Anand and Ravallion (1992).

³⁰ Strictly speaking the 'space' in question is that of functionings, in which 'capability' would take the form of a set of feasible *n*-tuples of functionings (on this see Sen 1985a, 1992b). The opportunity-freedom judgements are judgements of the ranking of capability sets in that functioning space.

6. Weak efficiency of competitive equilibria in opportunity-freedom

I turn now to the exercise of moving from welfarist efficiency to the efficiency of opportunity-freedom, as the criterion of judging competitive market equilibria. This is done in three distinct steps: (i) moving from welfare to preference, (ii) moving from preference to opportunity-freedom in the commodity space, (iii) moving from the commodity space to the space of functionings and capabilities.

6.1. *Step 1: from welfare to preference*

In the standard general equilibrium literature, individual preference orderings R_i play two distinct parts, to wit: (i) they determine individual choices (i.e., the choice function of each person i takes the form of binary maximization of R_i), and (ii) they represent individual welfares used as the basis of welfarist evaluations of market equilibria: the welfare function of each person i is taken to be a real-valued representation of R_i . The two together amount to assuming that each person's choices are guided solely by the maximization of his or her own welfare, that is, by the self-interested pursuit of personal welfare.

While this 'double role' of individual preferences paves the way to welfarist assessment of markets (including the use of the criterion of Pareto efficiency), it must be noted that the basic analytical results relate directly to the fulfilment of preferences (in the choice sense), rather than to the individual pursuit of self-interested welfares. The standard welfarist interpretation of market equilibria involve an additional—and thoroughly disputable—construction (to wit, the invoking of the assumption of act-based self-interest maximization), but the mathematical basis of the theorem relates more generally to fulfilling preferences (as the binary relations of choice).

The assumption of self-interested behaviour becomes quite redundant when we shift our attention from welfarist efficiency to efficiency in preference fulfilment, and there is no longer any necessity to assume that the maximization of one's own welfare is the only motive for action for everyone. This extension, while easy enough, is far from trivial. Suppose that individuals do not maximize only what they, and others, see as their respective welfares, and that their choices are guided by other considerations as well.³¹ Even then the 'fundamental theorem of welfare economics' would still have substantial content, in terms of preference fulfilment, taking preference as the binary basis of choice (no

³¹ Note that the assumption of 'no externality' still requires that each person's preference relates only to his or her own commodity bundle. It is sometimes presumed that the possibility of being concerned with anything other than one's own welfare cannot arise under these circumstances. This is not so. For example, when you choose to buy saplings from a nursery, the revealed preference could be related to your own joy (like Lorenzo's, in seeing 'the sweet wind did gently kiss the trees'), or alternatively, your preference could relate to your selfless commitment to increase the tree-population of the world. Similarly, whether your desire for buying more food is related to your own eating programme, or to your selfless plan to ship it all outside the economy, does not alter the fact that your preference is defined over a bundle of commodities with preference for more food.

matter what the underlying motivations for choice are). We could define the efficiency of preference-fulfilment thus:

Efficiency of preference-fulfilment It is impossible to move any one to a more preferred position (i.e., a position that the person would choose given the opportunity), keeping everyone in an equally preferred situation.

The ‘direct theorem’, thus reinterpreted, indicates (given the other assumptions) that in a competitive market equilibrium, efficiency of preference-fulfilment will be achieved. This is, in fact, not an extension of the original direct theorem; it is the central content of that theorem. On the contrary, the welfarist efficiency result (as in the standard version of ‘the fundamental theorem’) is simply grafted on to the efficiency of preference-fulfilment with the supplementary, and dubious, assumption that everyone maximizes his or her own welfare.

6.2. *Step 2: from preference to opportunity-freedom in commodity space*

The next move is towards weak efficiency of competitive market equilibria in terms of opportunity-freedoms (without, yet, removing the focus on the commodity space). It can be established that given the standard conditions (including the absence of externalities), efficiency in terms of preference-fulfilment would entail weak efficiency of opportunity-freedom.

The proposition is easy to establish. Suppose a state of affairs x that is efficient in terms of preference-fulfilment is not weakly efficient in terms of opportunity-freedom in the commodity space. So there is an alternative state of affairs y in which at least one person’s opportunity-freedom—let us call him j —is surely greater, and everyone’s opportunity-freedom is surely at least as large. It follows from Axiom O that person j must have an option in state y that is better than every option in state x . Furthermore, since choices are congruent with preference-maximizing behaviour, j must be in a better state of preference fulfilment in y than in x . Now, given that x is efficient in terms of preference fulfilment, it follows that at least one person—call her k —must be in a less preferred situation in y than in x . Again, given preference-maximizing choice behaviour, clearly k could not have had any option that would have been at least as good as each option that she had in x . Hence, k ’s opportunity-freedom could not be said to be surely at least as large in y as in x . Hence the initial supposition that the preference-efficient state of affairs x was not weakly efficient in terms of opportunity-freedoms leads to a contradiction.³²

Taking steps 1 and 2 together, it is clear that, given standard assumptions (such as no externalities), but without needing the assumption of self-welfare maximizing behaviour, any competitive market equilibrium is weakly efficient in opportunity-freedom (in the standard commodity space).

The converse theorem is not extendable in the same way. The bettering of the

³² It is a corollary that the efficient states of affairs in terms of preference-fulfilment is a subset of the weakly efficient states in terms of opportunity-freedoms.

most-preferred alternative is not sufficient for the sure enhancement of opportunity-freedom, nor for freedom remaining at least as large, as was discussed in Section 5. However, as was discussed in Section 2, the converse theorem, despite its apparently greater relevance, has, in many ways, less interest for practical economic policy than the direct theorem.

6.3. *Step 3: from commodity space to capability space*

The need to go beyond the commodity space to the space of actual functionings and capabilities was discussed earlier (in Section 5). The variability of the relationship between commodity holdings and actual functionings and capabilities makes the commodity space not quite the correct field for interpersonal comparisons of opportunity-freedoms. This deficiency is particularly serious for the assessment of inequality and for a theory of justice.³³

On the other hand, the efficiency result that a competitive market equilibrium is weakly efficient in opportunity-freedoms does not involve any interpersonal comparisons at all. While the relationship between commodity holdings and capabilities varies with personal parameters, this need not affect, for a given person, the congruence of the ranking of budget sets in the commodity space and the ranking of the corresponding capability sets in the functioning space.³⁴ A disabled person may achieve less capability with the same bundle of commodities than a more able-bodied person (and this fact is of central importance in making interpersonal comparisons and in assessing equity and justice), but for each person—the disabled and the able-bodied—the capabilities expand with command over commodities.³⁵

If this relationship is formally axiomatized, then the weak efficiency of opportunity-freedoms in commodity space can be correspondingly extended to the weak efficiency of opportunity-freedoms in the space of functionings and capabilities. Since interpersonal comparisons are not invoked at any stage in that argument, the interpersonal variability of the commodity-capability relation, central to the theory of justice, has no direct bearing on this analysis. Thus, given these standard assumptions, competitive market equilibria are weakly efficient in opportunity-freedoms in terms of capabilities as well as commodity holdings.

³³ I have discussed these issues in Sen (1980, 1992b).

³⁴ This is indeed the basis of taking 'income' as a general 'primary good' in the Difference Principle used by Rawls (1971), even though its interpersonal extension is deeply problematic (Sen 1992b).

³⁵ There is a different issue as to whether the commodity space includes all the important influences that determine capabilities given the personal parameters. In this respect, it may be more complete to look for all external means to individual opportunities—all of the Rawlsian (1971) 'primary goods' (of which income is only one). Some of the more important influences may operate outside the commodity space altogether. However, the assumption of 'no externalities' reduces the scope for non-commodity influences on capability to function, for any given person. Also, to the extent that the influence of commodity holdings is separable from the influence of other external factors, the efficiency results would have a natural translation into that more inclusive framework.

7. Inequality and the market mechanism

The discussion of opportunity-freedoms has been confined so far to the achievement of efficiency only (in fact, weak efficiency). Problems of inequality of opportunity-freedoms have not been addressed. The 'direct theorem', which is extended in a weak form to opportunity-freedoms, is really supremely unconcerned with distributional issues, and the partial justification for the market mechanism it provides is based entirely on efficiency considerations. Just as a Pareto efficient outcome may well be thoroughly unequal and nasty, the corresponding weakly efficient combination of opportunity-freedoms can also be deeply unattractive.

It should also be noted that inequality is no less possible in the space of capabilities and opportunity-freedoms than in that of commodities and welfares. In fact, there may actually be some accentuation of inequality due to the 'coupling' of (i) income inequality and (ii) unequal advantages in converting incomes into capabilities, the two together intensifying the problem of inequality in terms of opportunity-freedoms. Those who are disabled, or ill, or old, or otherwise handicapped may have, on the one hand, problems in earning a decent income, and on the other, also face greater difficulties in converting incomes into capabilities to live well. The same factors that may make a person unable to find a good job and a good income may put the person at a disadvantage in achieving a good quality of life even for the same job and same income.³⁶

This relationship between income-earning ability and income-using ability is, of course, a well-known phenomenon in poverty studies.³⁷ Its effect here is to suggest that the interpersonal income inequality in the market outcome may tend to be magnified by its coupling with handicaps in converting incomes into capabilities. While the adoption of the perspective of opportunity-freedoms (rather than welfares) does not disrupt the efficiency claims of the competitive market mechanism, it may make the distributional achievements, in some respects, even more problematic.

8. Concluding remarks

In this paper I have tried to reformulate the problem of evaluation of the competitive market mechanism in terms of its accomplishments in promoting individual freedoms, as opposed to the conventional framework of welfarist assessment (Sections 1 and 2). Different aspects of freedoms were distinguished, and particular attention was paid to the dichotomy between 'the process aspect' and 'the opportunity aspect' (Section 3). The former raises issues of decisional

³⁶ On this connection, see Sen (1983b, 1992b).

³⁷ See, for example, Wedderburn (1961), Atkinson (1970, 1989), Townsend (1979), Sen (1983b, 1984).

autonomy and immunity from encroachment, and in these respects (and in terms of the corresponding ideas of libertarian rights and negative freedoms), the competitive market mechanism does indeed have much to offer, in the absence of particular types of externalities (Section 4).

The opportunity aspect of freedoms gives an important role to the respective individual preferences and to the corresponding assessment of opportunities of choice (Section 5). That connection is central to an understanding of this particular aspect of freedom (as opposed to the process aspect). There are, however, some real possibilities of alternative characterization of the precise connections. The axiom structure chosen in this paper left room for variations in the exact formulation and went instead for a weak type of efficiency, based on necessity conditions for being sure of an expansion of opportunity-freedom.

A different substantive issue concerns the space in which achievements and opportunities are to be assessed and opportunity-freedom is to be evaluated. The need to go beyond holdings of commodities into actual opportunities of functioning and different ways of living was considered in that context, leading to a reformulation of the efficiency problem in this space (Section 5).

The welfarist efficiency of competitive market equilibria can be extended to weak efficiency in terms of opportunity-freedoms (Section 6). This extension is done in three steps: (i) moving from welfare achievement to preference fulfilment; (ii) moving from preference fulfilment to opportunity-freedoms in commodity space; and (ii) moving from commodity space to that of actual opportunities of functioning and the capability to function. The assumptions needed for these results are not particularly more demanding than those used in the standard case of welfarist efficiency (that is, in 'the fundamental theorem of welfare economics'). Indeed, one of the assumptions used in the standard formulation (*viz.* self-welfare maximizing behaviour) can in fact be dropped. It is, however, important to remember that the standard assumptions (such as no externalities) are exacting enough.

While the efficiency achievements of competitive market equilibria re-emerge, in a somewhat weaker form, for opportunity-freedoms (both in terms of freedom to choose commodity baskets and in terms of capabilities to function), the equity problems—serious as they are even in the welfarist framework—tend to become even more difficult and pronounced (Section 7). This is because of the possibility of coupling of income disadvantages with disadvantages in converting incomes into opportunities of functioning and ways of living. While the efficiency advantages of the market mechanism, given the standard assumptions, tend to translate, in some forms, into the field of freedoms (even in the space of capabilities, not just that of commodities), the problems of inequality remain and if anything tend to get magnified in the process of the translation.

Ultimately, the challenge that the market systems have to face must relate to problems of equity in the distribution of substantive freedoms. This problem is additional to the more discussed difficulties in (i) achieving equilibrium,

(ii) ensuring competition, (iii) meeting the special assumptions needed for efficiency results (such as the absence of non-marketable externalities).³⁸

Finally, is there really anything much gained in moving from the 'welfarist' interpretation of market efficiency to a freedom-based understanding? I believe there are at least four substantial gains.

First, there is a real gap between the freedom-invoking rhetoric, often used in the literature, in defence of the market mechanism (e.g., that it makes people 'free to choose') and the exclusively 'welfarist' treatment of the market mechanism in conventional welfare economics. It is important to examine the particular senses in which—and the extent to which—economic analysis can or cannot sustain that rhetoric.

Second, the idea of freedom involves several distinct issues, including processes and procedures as well as actual opportunities that people have to live the way they would choose. It is necessary to distinguish between the different aspects of freedom to have a better understanding of the distinct ways in which the promotion of freedom can be judged. While this exercise was undertaken in this paper as a prelude to an examination of what the markets can or cannot be expected to do, the exercise itself has more general interest.³⁹

Third, at a more substantive level, it turns out that freedom-based analyses of market efficiency make it redundant to assume that the individual preferences and choices must be taken to be aimed exclusively at one's own welfare—the pursuit of the respective self-interest. That staple assumption in welfarist assessment turns out to be essentially irrelevant not only to the process aspect of freedom, but also for efficiency results in terms of opportunity-freedoms. A person's freedom to get what he or she prefers (no matter why) takes us a little away from this limiting, and I believe largely false, assumption.

Finally, by shifting attention from an exclusive concentration on welfare achievement to the freedom to achieve in general, the freedom-based approach can encourage a shift in the perspective of technical economic analysis in a direction that has considerable ethical and political importance. The relation between markets and freedoms was seen as a momentous problem by classical economists (as John Hicks noted), and there are good reasons against ignoring that connection altogether. This paper has been aimed at sorting out some of the basic issues in that relationship.

Harvard University

³⁸ The importance of 'public goods' in health, education, social security can, indeed, deeply compromise the case for relying entirely on the markets for resource allocation. On this see Drèze and Sen (1989), Griffin and Knight (1989), Anand and Ravallion (1993).

³⁹ The investigation of different aspects of freedom has been carried further in my Arrow Lectures ('Freedom and Social Choice'), 1991; to be published.

ACKNOWLEDGEMENTS

Revised version of the John Hicks Lecture given at Oxford on 17 May 1990. The text does not include some personal remarks made at the beginning of the talk on the late Sir John Hicks, who was not only a great economist and intellectual leader, but also a wonderful colleague and a warm friend. In revising this paper, I have greatly benefited from the comments of Jean Drèze, and also from discussions with G. A. Cohen, A. B. Atkinson, Emma Rothschild, Thomas Scanlon, Nicholas Stern, Richard Velkley, Stefano Zamagni, and the anonymous referees of this journal. I am grateful to the National Science Foundation for research support.

REFERENCES

- AKERLOF, G. A. (1984). *An Economic Theorist's Book of Tales*. Cambridge University Press, Cambridge.
- ANAND, S. and RAVALLION, M. (1993). 'Human Development in Poor Countries: On the Role of Private Incomes and Public Services', *Journal of Economic Perspectives*, 7.
- AOKI, M. (1989). *Information, Incentive and Bargaining in the Japanese Economy*, Cambridge University Press, Cambridge.
- ARROW, K. J. (1951a). *Social Choice and Individual Values*, Wiley, New York.
- ARROW, K. J. (1951b). 'An Extension of the Basic Theorems of Classical Welfare Economics', in J. Neyman (ed.), *Proceedings of the Second Berkeley Symposium of Mathematical Statistics*, University of California Press, Berkeley, CA.
- ARROW, K. J. and HAHN, F. H. (1971). *General Competitive Analysis*, Holden-Day, San Francisco; republished, North-Holland, Amsterdam, 1979.
- ATKINSON, A. B. (1970). *Poverty in Britain and the Reform of Social Security*, Cambridge University Press, Cambridge.
- ATKINSON, A. B. (1989). *Poverty and Social Security*, Wheatsheaf, New York.
- BAUER, P. T. (1981). *Equality, the Third World and Economic Delusion*, Harvard University Press, Cambridge, MA.
- BENTHAM, J. (1789). *An Introduction to the Principles of Morals and Legislation*, Payne, London.
- BERLIN, I. (1969). *Four Essays on Liberty*, Oxford University Press, Oxford.
- BUCHANAN, A. (1985). *Ethics, Efficiency and the Market*, Clarendon Press, Oxford.
- BUCHANAN, J. M. (1975). *The Limits of Liberty*, Chicago University Press, Chicago.
- BUCHANAN, J. M. (1986). *Liberty, Market and the State*, Wheatsheaf Books, Brighton.
- DASGUPTA, P. (1982). *The Control of Resources*, Blackwell, Oxford.
- DASGUPTA, P. (1986). 'Positive Freedom, Markets and the Welfare State', *Oxford Review of Economic Policy*, 2; reprinted in Helm (1989).
- DASGUPTA, P. (1988). 'Lives and Well-being', *Social Choice and Welfare*, 5.
- DAVIDSON, D. (1980). *Essays on Actions and Events*, Clarendon Press, Oxford.
- DE RUGGIERO, G. (1925). *Storia del liberalismo europeo*.
- DEBREU, G. (1959). *Theory of Value*, Wiley, New York.
- DORE, R. (1987). *Taking Japan Seriously*, Stanford University Press, Stanford.
- DRÈZE, J. and SEN, A. (1989). *Hunger and Public Action*, Clarendon Press, Oxford.
- DWORKIN, R. (1978). *Taking Rights Seriously*, Duckworth, London, 2nd edition.
- DWORKIN, R. (1985). *A Matter of Principle*, Harvard University Press, Cambridge, MA.
- FRIEDMAN, M. and FRIEDMAN, R. (1980). *Free to Choose*, Secker and Warburg, London.
- GAERTNER, W., PATTANAIK, P. and SUZUMURA, K. (1992). 'Individual Rights Revisited,' *Economica*, 59.
- GREEN, J. and LAFFONT, J.-J. (1979). *Incentives in Public Decision Making*, North-Holland, Amsterdam.
- GREEN, T. H. (1889). 'Lecture on Liberal Legislation and Freedom of Contract', in R. L. Nettleship (ed.), *Works of T. H. Green*, 3, Longmans, London, 1891.
- GRIFFIN, K. and KNIGHT, J. (eds.) (1989). 'Human Development in the 1980s and Beyond', *Journal of Development Planning*, 19 (Special Number).

- GROVES, T. and LEDYARD, J. (1977). 'Optimal Allocation of Public Goods: A Solution to the "Free Rider" Problem', *Econometrica*, **46**.
- HAHN, F. H. (1982). 'Reflections on the Invisible Hand', *Lloyds Bank Review*, **144**.
- HAMLIN, A. and PETTIT, P. (1989). *The Good Polity*, Basil Blackwell, Oxford.
- HAMMOND, P. J. (1982). 'Utilitarianism, Uncertainty and Information', in Sen and Williams (1982).
- HAYEK, F. A. (1960). *The Constitution of Liberty*, Routledge and Kegan Paul, London.
- HELM, D. (ed.) (1989). *The Economic Borders of the State*, Clarendon Press, Oxford.
- HICKS, J. R. (1939). *Value and Capital*, Clarendon Press, Oxford.
- HICKS, J. R. (1981). *Wealth and Welfare*, Basil Blackwell, Oxford.
- KANGER, S. (1971). 'New Foundations for Ethical Theory', in R. Helpinen (ed.), *Deontic Logic*, Reidel, Dordrecht.
- KOOPMANS, T. C. (1957). *Three Essays on the State of Economic Science*, McGraw-Hill, New York.
- KOOPMANS, T. C. (1964). 'On the Flexibility of Future Preferences', in M. W. Shelley and J. L. Bryan (eds.), *Human Judgments and Optimality*, Wiley, New York.
- KORNAI, J. (1988). 'Individual Freedom and the Reform of Socialist Economy', *European Economic Review*, **32**.
- KREPS, D. (1979). 'A Representation Theorem for "Preference for Flexibility"', *Econometrica*, **47**.
- KREPS, D. (1988). *Notes on the Theory of Choice*, Westview Press, London.
- LINDAHL, L. (1977). *Position and Change*, Reidel, Dordrecht.
- LINDBECK, A. (1988). 'Individual Freedom and Welfare State Policy', *European Economic Review*, **32**.
- MARX, K. (1843). *Critique of Hegel's Philosophy of the Law*, in Karl Marx and Friedrich Engels, *Collected Works*, Lawrence & Wishart, London, 1975.
- MARX, K. (1844). *On the Jewish Question*, in Karl Marx and Friedrich Engels, *Collected Works*, Lawrence & Wishart, London, 1975.
- MCKENZIE, L. (1959). 'On the Existence of General Equilibrium for a Competitive Market', *Econometrica*, **27**.
- MORISHIMA, M. (1982). *Why Has Japan 'Succeeded'?: Western Technology and Japanese Ethos*, Cambridge University Press, Cambridge.
- NOZICK, R. (1974). *Anarchy, State and Utopia*, Blackwell, Oxford.
- NOZICK, R. (1989). *The Examined Life*, Simon and Schuster, New York.
- PATTANAİK, P. K. and XU, Y. (1990). 'On Ranking Opportunity Sets in Terms of Freedom of Choice', *Recherches Economiques de Louvain*, **56**.
- PUPPE, C. (1992). 'An Axiomatic Approach to "Preference for Freedom of Choice"', mimeograph, Harvard University.
- RAWLS, J. (1971). *A Theory of Justice*, Harvard University Press, Cambridge, MA.
- RAZ, J. (1986). *The Morality of Freedom*, Clarendon Press, Oxford.
- RILEY, J. (1987). *Liberal Utilitarianism: Social Choice Theory and J. S. Mill's Philosophy*, Cambridge University Press, Cambridge.
- SAMUELSON, P. A. (1938). 'A Note on the Pure Theory of Consumers' Behaviour', *Economica*, **5**.
- SAMUELSON, P. A. (1947). *Foundation of Economic Analysis*, Harvard University Press, Cambridge, MA.
- SCANLON, T. M. (1978). 'Rights, Goals and Fairness', in S. Hampshire et al. (eds.), *Public and Private Morality*, Cambridge University Press, Cambridge.
- SEN, A. K. (1970). *Collective Choice and Social Welfare*, Holden-Day, San Francisco; republished, North-Holland, Amsterdam, 1979.
- SEN, A. K. (1980). 'Equality of What?' in S. McMurrin (ed.), *Tanner Lectures on Human Values, I*, Cambridge University Press, Cambridge.
- SEN, A. K. (1981). *Poverty and Famines: An Essay on Entitlement and Deprivation*, Clarendon Press, Oxford.
- SEN, A. K. (1982a). *Choice, Welfare and Measurement*, Blackwell, Oxford: and MIT Press, Cambridge, MA.
- SEN, A. K. (1982b). 'Rights and Agency', *Philosophy and Public Affairs*, **11**.
- SEN, A. K. (1983a). 'Liberty and Social Choice', *Journal of Philosophy*, **80**.

- SEN, A. K. (1983b). 'Poor, Relatively Speaking', *Oxford Economic Papers*, **35**.
- SEN, A. K. (1984). *Resources, Values and Development*, Blackwell, Oxford, and Harvard University Press, Cambridge, MA.
- SEN, A. K. (1985a). *Commodities and Capabilities*, North-Holland, Amsterdam.
- SEN, A. K. (1985b). 'Well-being, Agency and Freedom: The Dewey Lectures 1984', *Journal of Philosophy*, **82**.
- SEN, A. K. (1987). *On Ethics and Economics*, Blackwell, Oxford.
- SEN, A. K. (1988). 'Freedom of Choice: Concept and Content', *European Economic Review*, **32**.
- SEN, A. K. (1991). 'Welfare, Preference and Freedom', *Journal of Econometrics*.
- SEN, A. K. (1992a). 'Minimal Liberty', *Economica*, **59**.
- SEN, A. K. (1992b). *Inequality Reexamined*, Clarendon Press, Oxford, and Harvard University Press, Cambridge, MA.
- SEN, A. K. *et al.* (1987). *The Standard of Living*, Cambridge University Press, Cambridge.
- SEN, A. K. and WILLIAMS, B. (ed.) (1982). *Utilitarianism and Beyond*, Cambridge University Press, Cambridge.
- SUPPES, P. (1987). 'Maximizing Freedom of Decision: An Axiomatic Analysis', in G. R. Feiwel (ed.), *Arrow and the Foundations of the Economic Policy*, New York University Press, New York.
- SUZUMURA, K. (1983). *Rational Choice, Collective Decisions and Social Welfare*, Cambridge University Press, Cambridge.
- TOWNSEND, P. (1979). *Poverty in the United Kingdom*, Penguin, Harmondsworth.
- WADE, R. (1990). *Governing the Market: Economic Theory and the Role of the Government in East Asian Industrialization*, Princeton University Press, Princeton.
- WEDDERBURN, D. (1961). *The Aged in the Welfare State*, Bell, London.
- WRIGLESWORTH, J. (1985). *Libertarian Conflicts in Social Choice*, Cambridge University Press, Cambridge.