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Market Socialism or Socialization of the Market?

The virtues of the market and the deficiencies of central planning have become common sense for many socialist economists, both in the capitalist countries and in those of 'actually existing socialism'.[1] Some spirited defences have recently been made of non-market forms of economic co-ordination, particularly by Ernest Mandel,[2] but in my view these do not provide fully satisfactory responses to the advocates of market socialism. In this essay I shall discuss the arguments put forward by Mandel in recent issues of *New Left Review*, and those of his principal target of criticism, Alec Nove. I share Mandel's view that, despite Nove's argument to the contrary, there is an alternative between the market and bureaucratic planning. But I begin to explore an alternative along quite different lines. I agree with Nove that the price mechanism is an indispensable instrument of co-ordination for a socialist economy, but argue that it must be socialized if it is to work for rather than against socialism. The debate between Mandel and Nove is about the possibility of a society of freely associated producers in which commodity production has been superseded, rather than about the 'marketization' of actually existing socialism. It is necessary to recognize that advocates of market socialism see the market as a form of free association: indeed, this is one of the major points of their case. The market cannot be dismissed *a priori*: the argument should rather be about whether the conditions necessary for the market to function adequately as a form of free association can actually be sustained. Nor should the discussion be foreclosed by defining socialism in terms of the absence of commodity production and by making a simple equation between commodity production and buying and selling. I do not intend to enter here into a detailed consideration of Marx's concepts of the commodity and of commodity fetishism. I shall simply propose that the aspect of these concepts that makes them analytically useful is the idea of commodities as 'autonomous figures endowed with a life of their own, which enter into relations both with each other and with the human race'.[3] The commodity, in Marx's writings, is not fundamentally a good which is bought and sold for money. To be sure, sentences can be isolated in which the commodity appears to have no more than this sense, but the structure of Marx's texts as a whole suggests something less banal. The problematic status of commodities derives not from the mere fact of sale and purchase, but from the fact of sale and purchase under conditions which enable them to take on an independent life of their own. It is this independence of commodities which enables a social relation between men to assume the fantastic form of a relation between things: 'The persons exist for one another merely as representatives and hence owners, of commodities.'[4]

Such an interpretation leaves open the possibility of creating a society in which goods are exchanged for money but do not have an independent life of their own; and in which persons do not exist for one another merely as representatives of commodities. This possibility, which requires not the abolition but the socialization of buying and selling and the price formation process, will be discussed in Part II of this essay. Part I lays the foundations through a critique of the key proposals made by Nove and Mandel.

Though this essay is about forms of economic co-ordination, its starting point is neither the market nor the plan, but the production and reproduction of labour power. In a capitalist economy the guiding thread is the production and reproduction of capital; the creative power of human beings and the expression and development of needs become subordinate to the drive for profit. The guiding thread of a socialist economy must be the production and reproduction of labour power. To give this priority requires transformations in relations to the means of production and to the means of consumption; transformations within places of work, and within households; transformations in relations between producers and consumers. The touchstone for judging any particular form of economic

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[1] For comments on an earlier draft, I would like to thank participants at seminars at the University of Manchester, and at *New Left Review*. Particular thanks for detailes suggestions to Andrew Glyn, Ben Fine, Geoff Hodgson and Ian Steedman.

[2] E. Mandel, 'In Defence of Socialist Planning', *New Left Review* 159, September–October 1986, and 'The Myth of Market Socialism', NLR 169, May–June 1988. See also P. Devine, 'Market Mania of the Left', *Marxism Today*, June 1988, and *Democracy and Economic Planning*, Oxford 1988.

[3] K. Marx, *Capital. Volume One*, NLR/Penguin, Harmondsworth 1976, p. 165.

[4] Ibid., pp. 178$9.

co-ordination will be its implications for the process of production and reproduction of labour power. This is a wider view than the traditional socialist focus on workers, which tends to look chiefly at the implications for labour power in the paid labour process. This is certainly an important dimension, and the way in which labour power is used up clearly has powerful effects on the requirements for its reproduction. But, as feminists have always argued, unpaid labour processes in the household and the community are at the heart of the production and reproduction of labour power. 'Producers' has to be given a wider meaning than 'workers in paid labour'—a meaning which takes account of the fact that every producer was once a child, and will someday find their power reduced through ill-health and age. Defenders of socialist planning have placed far more emphasis than have advocates of market socialism on the implications of forms of co-ordination for labour, but, with a few exceptions, they have tended to take a narrowly 'workerist' view of labour.[5] In contrast, I shall give the household a central role.

I. Nove's Market Socialism and Mandel's Socialist Planning

Nove's advocacy of market socialism[6] is undertaken in the name of realism: actually existing socialism has foundered because of the deficiencies of central planning, and the Marxist tradition has only utopian or plain mistaken guidelines to offer. The only feasible solution is to reduce the role of central planning and increase the role of the market.

Nove's Dual Economy

In Nove's view, the only realizable socialist economy is a dual economy: a dominant sector which is organized through 'a system of binding instructions from planning offices' (p. 44), and a large, though subordinate, sector which is organized through markets. The main feature that differentiates such an economy from a capitalist 'mixed economy' is the absence of any large-scale private ownership of the means of production. The economy is made up of three types of enterprise: state-owned, co-operatives, and individually owned businesses. Choice and democracy largely depend on the operation of the market and a political system in which the planners are responsible to an elected assembly. There is some concern for the transformation of the social and material relations of production, but not of exchange, distribution and consumption. There is not much focus on the reorganization of the labour process beyond an advocacy of small firms, and none on the reorganization of the relations between the production of goods and services and the production and reproduction of labour power.

This neglect is not specific to Nove: most of the discussion of the organization of a socialist economy has the same productionist bias. It is concerned with the transformation of the relations of production in the workplace, but fails to rethink the relations between production and

[5] Among the exceptions is Greater London Council, *The London Labour Plan*, 1988.
[6] A. Nove, *The Economics of Feasible Socialism*, London 1983. Unless otherwise stated, references to Nove are to this book. But see also A. Nove, 'Markets and Socialism', NLR 161, January–February 1987.

consumption between workplace and households; and to consider the way in which consumption and the reproduction of labour power need to be reorganized. A feminist approach to the question of socialist economy would make the articulation of production of goods and services and reproduction of labour power absolutely central. This requires, among other things, a rethinking of how households acquire goods and services from outside organizations; of who does the work of shopping, acquiring a place to live, liaising with schools and medical services, and so on, and through what kind of social and material relationships. Nove, along with most writers on the topic, does not consider this. There is some discussion of the transformation of production, but the nexus between enterprises and households would remain either the market or hierarchical administrative systems; and the initiative would remain with the producing organizations in determining the design of goods and services to be used by households.

There is no sign of the politics of use values, or of popular participation in planning through direct cooperation between organizations of producers and the households which use their products.[7] Nove places little value on self-organization at the grass roots and is particularly suspicious of the role of trade unions, which are seen as obstacles to necessary economic reforms in both capitalist and socialist countries. Public action, for members of Nove's socialist society, seems to be confined to buying, selling, and voting.

Thus Nove's conception of socialism emphasizes formal ownership and is defined primarily in terms of an *absence* of large-scale capitalist enterprise. The advantages that he claims for his form of socialist economy are flexibility, efficiency, choice and an avoidance of the excesses either of untrammelled capitalism or of untrammelled centralized planning.[8] As Mandel points out, Nove does not grapple with the question of flexibility for whom, efficiency for whom, choice for whom. In a capitalist economy these all operate in favour of capital. Efficiency means efficiency in profit-making: from the point of view of labour it may mean *higher* costs in terms of time and effort, for so-called efficiency gains are often bought by transferring tasks from paid labour to unpaid labour, or by intensifying paid labour. It may mean higher costs in terms of ill-health, for health and safety precautions cost money. Mandel's solution, as we shall see, prioritizes the needs of people in producing goods and services and tends to ignore the needs of people using those goods and services in producing and reproducing labour power. But we have to face the difficult fact of some tension, even in the absence of private enterprise, between the producers and users of a good. Flexibility, efficiency and choice for the user may mean disruption, stress and uncertainty for the producer. A satisfactory response has to propose some ways of negotiating these tensions: this is the essence of the politics of use values. But Mandel and

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[7] Such concerns have been at the heart of recent municipal socialism in Britain. See M. Mackintosh and H. Wainwright, eds., *A Taste of Power: The Politics of Local Economics*, Verso, London 1987.

[8] Other recent writings on the organization of a socialist economy have reached similar conclusions about the virtues and inescapability of the market. Geoff Hodgson, for instance, who pays much more attention than Nove to issues of workers' participation in the organization of production and the democratization of planning, also insists that 'the decentralization of control over industry inevitably means the establishment of a market mechanism: no realistic alternative has been found' (*The Democratic Economy*, Harmondsworth 1984, p. 174).

Nove both propose one-sided responses: Mandel from the point of view of the producer, Nove, from the point of view of the consumer. To postulate an opposition between 'producer' and 'consumer' is in any case artificial, for we are all both. But to recognize this does not dissolve the tension. In this essay I shall discuss this tension in terms of interactions between two different kinds of social institutions, enterprises and households. Enterprises and households both engage in buying and selling, for households sell labour power and enterprises buy labour power and other inputs. Both institutions therefore have a 'consumer' and a 'producer' aspect.

Nove offers little detailed discussion of what markets actually are; how they function in capitalism; how they are to be organized in socialism. The image that does emerge from the few scattered references is a system of 'freely chosen negotiated contracts' (p. 44) or of bargaining between suppliers and customers. For example: 'The large majority of goods and services can only be effectively priced in the process of negotiation between supplier and customer, the bargain including detailed specifications of delivery dates, quality and so on. We must naturally expect the producing enterprises to try to "administer" prices; and wholesale and retail organizations would seek to obtain the "markup" they regard as proper, but in the absence of shortages and the presence of choice the buyers can refuse, can go elsewhere, can bargain. In other words, competition should prevent abuse of producers' powers' (p. 210).

An Unrealistic Model

This 'bargaining model' is not a realistic description of a modern market economy in which, as is widely recognized among economists, fix-price markets predominate. Of course, the choices of buyers indirectly constrain pricing—firms cannot just set any price they like. But whereas buyers face given prices, sellers set prices, and the choice of price strategy is a specialist managerial function. Thus, for instance, households do not typically negotiate prices with retailers; in cases where they may negotiate, for instance with a builder or decorator, ability to get a good bargain depends on ability to deploy considerable resources of time and knowledge. In the great majority of cases, choice can only be exercised within a pre-specified set of goods at pre-specified prices, which households are free only to take or leave, in conditions in which large resources are expended by enterprises to mould household preferences and to control household knowledge of product characteristics. Households are not in a position to employ specialized purchasing officers to ensure they get the 'best buy'. As Joan Robinson argued, 'No one who has lived in the capitalist world is deceived by the pretence that the market system ensures consumers' sovereignty. It is up to socialist economies to find some way of giving it a reality.'[9] She went on to suggest that for a socialist economy: 'The best hope seems to be to develop a class of functionaries, playing the role of wholesale dealers, whose career and self-respect depend upon satisfying the consumer. They could keep in touch with demand through the shops; market research, which in the capitalist world

[9] J. Robinson, 'Consumer's Sovereignty in a Planned Economy', in A. Nove and D. Nuti, *Socialist Economics*, Harmondsworth 1972.

is directed to finding out how to bamboozle the housewife, could be directed to discovering what she really needs; design and quality could be imposed upon manufacturing enterprises and the product mix settled by placing orders in such a way as to hold a balance between economies of scale and variety of taste.'

Robinson is one of the few economists to have considered that the reorganization of shopping is just as much an element of the socialist process as the reorganization of production. The importance of her comment lies not in the particular solution she offers, but in her recognition that transforming the link between households and the production process is a vital aspect of socialism. Nove does not consider her approach nor make any suggestions of his own about how to improve the bargaining power of households in relation to suppliers, because he relies on 'competition' to solve this problem. But what exactly does he mean by competition? It is instructive to consider the example he gives: 'Suppose that there are sixteen or more firms (socialized and co-operative) engaged in providing some goods and services. Let it be wool cloth, toothpaste, ball-bearings, holiday hotels or whatever. They base their productive activities on negotiations with their customers. The latter can choose from whom to obtain the goods or services they require. All can obtain from *their* suppliers, whom *they* can choose, the inputs needed to make production possible. They have a built-in interest in satisfying the customer, and so no special measures are required to ensure this (apart from 'normal' regulations about pure food, non-adulteration, correct labelling etc)' (p. 204).

This is a very idealized view of competition: standard products; implicit assumptions of adequate knowledge and capacity to negotiate on the part of all buyers; no differentiation between final consumption goods like toothpaste and producer goods like ball-bearings and, most important of all, no discussion of the dynamics of competition. The implication is that the happy state of affairs of sixteen producing enterprises vying with each other to attract customers through keeping prices low and quality high will persist over time. No consideration is given to more predatory forms of competition: mergers, take-over bids, strategies aimed at bankrupting competitors; nor to measures to restrict competition through collusion between suppliers. The dynamic of centralization and concentration in competitive markets, emphasized by Marx, Schumpeter and Kalecki amongst many others, does not feature at all. Competition is treated as the antithesis of monopoly, not as a potential generator of monopoly; as a process that keeps in check the power of enterprises rather than enhancing it.

Nove's idealized notion is perhaps not surprising given that he has spent a lifetime studying Russian and Eastern European economies in which markets and competition have largely been absent.[10] The picture that emerges from empirical studies of capitalist economies, however, is very

[10] In Yugoslavia, where the role of the market has been much greater than in other countries of 'actually existing socialism', there is evidence of concentration and centralization. In 1970 the 130 largest enterprises in manufacturing and mining accounted for 45.1 per cent of total sales and 33.7 per cent of total employment. By 1977 these shares had risen to 70.1 per cent and 48.3 per cent. From 1965 to 1967, 12 per cent of all Yugoslav enterprises were involved in mergers, and merger activity continued in the seventies. (A. Zimbalist and H.J. Sherman, *Comparing Economic Systems*, Orlando 1984, p. 429.) Although Nove does discuss some shortcomings of the Yugoslav experience, this is not one that he mentions.

different. There is overwhelming evidence to support the notion of centralization and concentration: this does not mean that small firms are eliminated, but that large firms predominate, while small firms play subcontractor, or purely localized roles. Evidence of stability in the ratio of value-added (sales minus purchases from other firms) to sales for US firms[11] does not undermine this conclusion: firms are indeed involved in active trade with other firms. But a great deal of this is not 'arms length' trade through impersonal markets: rather it is trade between a large 'core' firm and its periphery of subordinate subcontractors. Concentration and centralization is certainly a dynamic process: reference to it should not be taken to imply support for the analytical idea of 'monopoly capitalism' and a tendency to stagnation. Nor does it preclude competition from new entrants in particular niches: Amstrad can indeed challenge IBM in the market for personal computers—but only by conforming to technical standards set by IBM. No individual entrepreneur, however dynamic, can hope to challenge IBM in mainframe computers.

Predatory competition leading to centralization and concentration means that the conditions of production and reproduction of labour power are more and more determined by the accumulation strategies of large firms; and that the distinction between households and enterprises becomes more and more pronounced. It is less and less possible for the majority of households to sell anything but their labour power. If the role of central authorities is to be limited to setting the 'normal regulations' within which prices and quantities are determined by private interactions between buyers and sellers, what is to impede the interests of producing enteprises dominating over those of households both as consumers, and as sellers of labour power? Nove's 'feasible socialism' is more utopian than at first sight it appears.

Neglect of Markets as Institutions and Processes

Nove is not alone among participants in the debate about socialist economy in paying little attention to what a market actually is and how markets actually work. Most of the considerable literature on the theory of economic co-ordination, and plans vs markets, fails to consider markets as social and material institutions.[12] Instead one or more of three favourite images is invoked: Nove's bargaining model; an auction in which buyers or sellers bid against one another; and a broker-organized market in which a broker offers to buy and sell stock at given buying and selling prices to which those who wish to acquire or dispose of stock react. But these images are peculiarly insubstantial. The fact that markets require resources to operate is not generally regarded as germane to the debate on the co-ordination of economic systems.[13] In sharp contrast, the magnitude of the resources required for socialist planning has always been entered into the argument as a factor against it. The vast numbers of sales personnel, marketing experts, advertising executives, stockbrokers

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[11] See P. Auerbach, M. Desai, A. Shamsavari, 'The Dialectic of Market and Planning', NLR 170, 1988.
[12] This lack has recently been discussed by G. Hodgson, *Economics and Institutions*, Oxford 1988; and L.M. Lachmann, *The Market as an Economic Process*, Oxford 1986.
[13] Among the few exceptions are S. Moss, *An Economic Theory of Business Strategy: An Essay in Dynamics without Equilibrium*, London 1981, and D. Helm, 'Price Formation and the Costs of Exchange', in M. Baranzini and R. Scazzieri, eds., *Foundations of Economics*, Oxford 1986.

etc. required to make markets operate has generally been ignored,[14] as has been the number of employees engaged on planning activities within private enterprises themselves.[15] Thus, for instance, Hayek postulated economy in the production of information as a decisive advantage for market allocation over planned allocation.[16] But as Helm points out, Hayek was making an implicit assumption that the market provides information costlessly. However, auctioneers, brokers and sales personnel have to eat—their activities require resources. They do not have perfect knowledge; they have to collect information. Too often the claim for the superiority of market allocation has been based on a comparison between a market system with exogenously or costlessly given prices and a planned system with a multitude of visible administrative costs; and the question of exactly how markets work has not been asked.

A market is a cash nexus between buyers and sellers, but this nexus does not just exist; it has to be made. A market implies one or more agents who act as market makers, setting prices and providing information about supply and demand; bringing buyers and sellers together. In Walrasian general equilibrium theory, which has dominated thinking by both socialists and liberals on economic co-ordination, the market-maker is a 'ghostly' auctioneer who stands outside the economic process, and is not a profit-seeker. The Austrian school, to which Hayek belongs, has a more robust attitude, seeing markets as made by profit-seeking agents, entrepreneurs, merchants and financiers. But neither pays much attention to the fact that making markets requires control of means of trade, such as credit, communications, transport, warehousing and information.

In a capitalist economy markets are primarily private, in the sense that the means of trade required to make markets is largely controlled by profit-seeking enterprises. To be sure, there is government intervention in markets, government regulation and guidance, and provision of some of the infrastructure required for trade, such as roads. But intervention and regulation simply seeks to influence the terms on which capitalist enterprises exercise their power to make markets; it leaves market-makers with enormous capacities for evasion and for 'regulatory capture' in which the state agency ostensibly regulating the market becomes instead an advocate for the market-makers.

In most discussion of the marketization of socialism, there is advocacy of the devolution of market-making to self-financing enterprises, who must recoup the costs of market-making through sales. Such a market is also private in the sense of being made by individual enterprises, according to criteria which enhance their individual surpluses. Prices are set in such private markets (whether capitalist or socialist) by specific agents,

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[14] One study of a Yugoslav textile firm's response to the 1965 reforms showed that its marketing department expanded from fewer than 12 to 39 people within one year. The need to respond more rapidly to the unstable market and the effort to influence market conditions led to the growing concentration of decision-making in the hands of an enlarged middle management, in spite of formal provisions for worker participation. Zimbalist and Sherman, op. cit., p. 439.

[15] R. Murray, 'Ownership, Control and the Market', NLR 164, July–August 1987, quotes an estimate that 375,000 people are engaged in various aspects of 'private enterprise' planning in London alone, including economists, accountants, investment analysts, designers and corporate planners, without even counting ancillary staff like secretaries and data processors.

[16] F. von Hayek, 'Economics and Knowledge', *Economica*, new series 4, 1937.

price-makers. Other agents in the market react to these prices: they are price-takers. Markets operate to publicize the prices set by price-makers; and the responses of price-takers determine the sustainability of prices set. Determination of prices in such markets does not necessarily imply continuously fluctuating prices. Some markets, such as financial and primary product markets, do give rise to fluctuating prices (flex-price markets). But the markets for most manufactured goods are characterized by price lists which are changed from time to time, but certainly not daily (fix-price markets).

Prices can only provide useful signals if decision-makers can form some ideas as to whether current price levels are 'normal' or not. If they are regarded as 'abnormal', they will not be expected to persist and decisions will be taken accordingly. Market institutions have the important function of establishing norms: usually trading is structured and information published selectively by a limited number of market-makers in a way that helps the formation of price expectations and norms, a practice often known as 'orderly trading'.[17] Thus, price-setting by a limited number of market-makers performs the useful function of establishing price 'norms', without which decision-making in an uncertain world would be extremely difficult. But the performance of this useful function gives the price-setters disproportionate influence on what happens: real-world historical processes are 'path dependent' and the price-setters have the initiative in defining the starting point. As Lachmann puts it, 'it matters who sets prices and who takes them.' The process of production and reproduction of labour power is, of course, primarily a 'price-taking' process.

Criticisms of the Market

Mandel's alternative to both market and central plan involves a system of 'articulated workers' self-management' that attempts to supply a non-market, decentralized system of co-ordination. While I agree with Mandel that a socialist economy should aim to go beyond market co-ordination, and that there are decentralized ways of doing this, his particular solution is deeply unsatisfactory. The central weakness of Mandel's approach is that he not only rejects markets, he also rejects prices. I shall argue that a decentralized socialist economy needs a decentralized price mechanism, but that this does not imply price formation through private markets (i.e., does not imply prices being set by enterprises acting as market-makers).

What then is wrong with market co-ordination? Some of the most common points are that it means production for profit rather than for need; that it is the antithesis of co-operation; that it is impersonal and 'blind'; that it is a way of disciplining workers; and that it leads to economic instability because it provides no way of knowing beforehand whether what is produced will be sold. But unless such arguments are much more carefully specified, it is easy for defenders of the market to dismiss them.

Market co-ordination, its defenders argue, does lead to the satisfaction of needs because it allows consumer choice. Profitability is an indicator of

[17] For a further discussion of this point see Hodgson, *Economics and Institutions*, p. 185.

the extent to which production is meeting needs. Of course, the needs being met are those which are backed by the necessary purchasing power, but if the problem is that poor people cannot express their needs in the market to the same extent as rich people, then the solution is to change the distribution of purchasing power through taxation and benefits, and changes in the ownership of means of production, not to abolish the market. Market co-ordination, it is claimed, does facilitate co-operation and mutuality because it satisfies the common interests of buyers and sellers in making a sale and a purchase.[18]

The impersonality of market co-ordination can be claimed as a benefit, a defence of individual freedom and a bulwark against personalized tyranny. It will be pointed out that any decentralized decision-making mechanism is 'blind' in the sense that the outcome is not consciously willed by participants but emerges from the aggregation of their individual decisions. Thus in an election each voter votes for the candidate of their choice but the outcome is the result of the 'blind' operation of the particular aggregation method. The need for a way of maintaining work discipline in any economic system will be stressed, as will the possibility of a mismatch between demand and supply in any complex economy. What matters, it will be argued, is not preventing such a mismatch but having an adequate mechanism to correct it. The market is a good adjustment mechanism, it is claimed—this was indeed the decisive benefit of the 'invisible hand' for Adam Smith, who was concerned not with the achievement of the static Pareto optimal general equilibrium that has tended to dominate discussion of the market as a system of co-ordination by neo-classical economists in the twentieth century, but with the reallocation of resources in the right direction when supply and demand conditions changed.[19] If the market adjustment mechanism is too slow in operating, it will be suggested, the resulting macro-economic problems of unemployment or inflation can be dealt with by suitable fiscal and monetary policy, supplemented by intervention to improve the speed of operation of the mechanism. So, defenders of the market will conclude, none of the objections is decisive. Socialists should take advantage of the market as an instrument that permits decentralized and flexible decision-making and motivates individuals to satisfy the public interest through pursuing their own interests.

Decision-Making and Markets

Socialists certainly should recognize the progressive aspect of market co-ordination. Marx clearly did: his writings contain passages which are almost paeans of praise for the way markets swept away the ties of personal dependency characteristic of feudalism, and ample recognition of the way markets can facilitate the mutual satisfaction of needs. But, as Marx also stressed, markets are not simply instruments of freedom and agency for individuals and of co-operation between individuals: even idealized markets as envisaged by Nove can in their turn exercise a power

[18] However, as Sen points out, although markets do work on a basis of some congruence of interests, the market mechanism is useless for resolving the *conflicts* of interest between buyer and seller on the distribution of the benefits of trade. A.K. Sen, *Resources, Values and Development*, Oxford 1984, pp. 93–94.
[19] Hayek also stresses the dynamic benefits of the market mechanism and rejects Pareto optimality, as a framework for evaluation.

over individuals, a power that Marx called the 'fetishism of commodities', and which appears in popular discourse as 'market forces'.

This arises because markets do not simply decentralize decision-making; they atomize it. For in the fundamental market relation, the cash nexus, each decision-making unit is disconnected from other decision-making units and is connected only to quantities and prices of goods. (This applies whether the decision-maker is a price-taker or a price-maker.) A graphic illustration is provided by the City dealer who issues buying and selling instructions in front of a video display of share prices. But even when market institutions do not separate them physically, buyers and sellers are nevertheless isolated one from another in the sense that the market mechanism as such, the cash nexus, provides no direct information to individual buying and selling units about the intentions and values of others. Each has to act separately in ignorance of what others intend to do, and must wait for the preferences of others to be revealed by the way in which prices and quantities change. Individual units in these circumstances have little basis for estimating beforehand what difference, if any, their decisions will make to the overall outcome. (This problem is avoided in much economic reasoning by assuming that the decision-maker is marginal—i.e., that the choices each makes have no impact on market outcomes.) The significance of individual decisions for the overall outcome only becomes apparent *after* they have been made, when prices, and levels of stocks, output and employment change. It is only through the changes in prices and quantities produced that the interconnection is made between different decision-makers: 'the relationships between the producers . . . take on the form of a social relation between products of labour'.[20] Compare this with decision-making in a committee or a team, where each participant can find out about the intentions and preferences of other participants before a decision is reached.

The isolation of the decision-makers means that the question each considers is: what should I do to serve my interests best, knowing the current price and availability of goods, but not knowing what others intend to do and would be prepared to do? The answer is not necessarily the same as that which would be given to a rather different question—what should I do to serve my interests best, knowing the current price and availability of goods, and also knowing what others intend to do and would be prepared to do? This is the heart of the 'isolation paradox', which has provided a basis for the discussion of individuated and collective decision-making in contemporary welfare economics.[21] It arises because the choices that each one of us considers appropriate for us are not independent of the choices which others intend to make, when the satisfaction yielded by the choice of each depends upon the choices that others have made. The market mechanism does not transmit to us direct information about intentions, desires and values; it only transmits information about the outcomes of decisions taken in the dark. The appropriate sense in which the market mechanism can be described as 'blind' is that it does not lighten our darkness. Marx's theory of commodity fetishism, which to economists often seems one of the most opaque concepts he deploys, can

[20] Marx, op. cit., p. 164.

[21] See, for instance, A.K. Sen, op. cit., introduction and ch. 4.

be seen as a dramatic metaphor for the isolation problem—'the definite social relation between men themselves which assumes here, for them, the fantastic form of a relation between things'.[22] In markets, decision-makers cannot make a direct connection with the wishes, aspirations, and values of others. Instead the wishes, aspirations and values of others become translated into market prices and quantities which seem to operate with the force of nature, and to which each decision-making unit must adjust without any opportunity for collective social reflection and discussion which might lead to a different set of choices. Market outcomes are thus felt as an external coercive pressure to which individuals must adjust; and market procedures offer no channels for decision-makers to reconsider their choice *before* committing themselves to sales and purchases, in the light of the aggregate outcome that would be the likely consequence of a particular pattern of choices, nor jointly to consider with others changes in objectives.

This problem is not perceived when it is assumed that there are no interdependencies between the satisfaction yielded by one person's choice and the choices made by others. Such interdependencies are assumed to be unimportant special cases in much economic theory. Environmentalists have shown us just how pervasive interdependencies are, but they have tended to concentrate on physical interdependencies such as pollution and traffic congestion. Paretian welfare economics—the framework within which economics students are typically taught to judge the strengths and weaknesses of the market mechanism—is willing to contemplate government intervention in markets to deal with problems like pollution. However, it is unable even to recognize another type of interdependency which arises not because of the absence of markets (the reason for interdependencies such as pollution), but because of the sequential disequilibrium character of any real-time market process (even that of a futures market) in which individuals must take decisions, in isolation, at some point in time before the enjoyment of the fruits of those decisions. In the gap between the taking of the decision and the enjoyment of its fruits, many changes may take place because of the intervening decisions of others, which affect the pay-off. Such interdependency pervades decisions about the use of labour power and investment decisions, but the market mechanism fails to provide a way of expressing this interdependency.[23]

When there are pervasive interdependencies between decisions taken by different people (or groups of people), then even from the point of view of self-interest, there are immense advantages to public-spirited decision-making.[24] It is self-defeating for each decision-maker to pursue only their own self-interest, the immediate pay-off, and not also the repercussions of their choices for others and for the viability of institutions. However, the market does not facilitate public-spirited decision-making, and indeed tends to undermine it.

In market economies decision-makers do not in fact rest content with

[22] Marx, op. cit., p. 165.

[23] This type of interdependency has been called a 'pecuniary' or 'dynamic' externality. See T. Scitovsky, 'Two Concepts of External Economies', *Journal of Political Economy*, 1954.

[24] For more detailed discussion of this point see F. Hirsch, *Social Limits to Growth*, London 1977, esp. ch. 10.

'atomization' and the absence of direct information about the intentions of others. As Marx noted: 'Together with the development of this alienation, and on the same basis, efforts are made to overcome it: institutions emerge whereby each individual can acquire information about the activity of all others and attempt to adjust his own accordingly, e.g. lists of current prices, rates of exchange, interconnections between those active in commerce through the mails, telegraphs etc.'[25] Trade associations are formed; decision-makers swap information about their plans at business lunches; markets are surrounded by a whole network of non-market contacts which are not mediated by money. However, the extent and quality of co-operative interchange between enterprises of the kind of information that the cash nexus cannot provide is limited by the search for competitive advantage, as at least some advocates of market socialism recognize.[26] Information flows are fragmented; there is a lack of open access to information networks; there is waste of resources as information-gathering activities have to be duplicated in the interests of secrecy. Or, to use the modes of expression deployed by Marx in the *Grundrisse*, co-operative attempts to overcome the alienation of the market do not, in a market economy, transcend that alienation; rather they are limited by it. So, market outcomes still impinge as external forces on individuals.

The Process of Adjustment and the Production and Reproduction of Labour Power

The degree of concern that is felt with regard to market forces depends upon beliefs about the ease and stability of adjustment, and about the extent to which there are alternatives to the atomized co-ordination which markets provide. If it is relatively easy for individuals to adjust their sales and purchases in stabilizing fashion in response to changing economic conditions and if they have open to them a multiplicity of attractive options, then there is not so much cause for concern about the coercive pressures of the market.

Advocates of the market tend to believe that provided the operation of the market is not impeded, adjustment is relatively easy, though they do not all base this belief on the same theory. For instance, Walrasian general equilibrium theory (the intellectual foundation of neo-classical economics) incorporates the comforting assumption that individuals can adjust their plans to produce or consume in response to price signals *before* they actually buy and sell and commit resources to production. Their repeated responses to varying price signals reveal their preferences, thus overcoming the problem of their lack of knowledge of each other's intentions. The assumption is that the market behaves as if it were co-ordinated by a (costless) auctioneer. When the market opens, the auctioneer calls out a set of prices at random, and the participants in the market decide what they would want to buy and sell at these prices. They pass this information (costlessly) to the auctioneer, who then works out a new set of prices, lower for goods in excess supply and higher for those in excess demand.

[25] Marx, *Grundrisse*, NLR/Penguin, Harmondsworth 1973, p. 161.

[26] 'In the sphere of the competitive market . . . trust and long-term cooperation, whilst present to some degree, are undermined by competition between the many different and transient agents. In the market there is a changing and volatile population, where each individual is pursuing his or her objectives largely in accord with the overt calculus of profit and loss' (Hodgson, op. cit., 1988, p. 210).

Everyone then decides again what they would want to buy and sell, and the sequence is continued until a set of prices is reached which clears the market, equating demand with supply. Only then do sales and purchases actually take place. Thus, the problems associated with sequential atomized decision-making are avoided: the auctioneer co-ordinates the decision-making, and actual sales and purchases are simultaneous and not sequential. Production only takes place once everyone is aware of what the implications of plans will be. The adjustment process thus implied is a fictitious process that takes place outside real time.[27]

The Austrian School (Menger, von Mises, Hayek, and their modern followers, such as Lachmann and Kirzner) offer a more robust account in which the entrepreneur rather than the auctioneer plays the hero's role. Adjustment is sequential rather than simultaneous, and takes place through entrepreneurs' actions to arbitrate, speculate or innovate. The emphasis is on the versatility and flexibility of human beings rather than on the constraints that they face. Representatives of this school have a tendency to over-generalize from the ease with which merchants may switch from buying to selling, or financiers from one industry to another, glossing over the difficulties of turning swords into ploughshares, or miners into electronics engineers. Dismissing the static equilibrium concept which is central to neo-classical economics, they emphasize uncertainty and change. But the Austrian school still incorporates the idea of a tendency towards equilibrium produced by rivalrous entrepreneurs bidding up prices when demand is greater than supply, and bidding them down when supply is greater than demand.[28] In fact, in the majority of markets there are good reasons for prices not to move in market-clearing directions. When agents in a particular market are permanently either buyers or sellers, rather than switching between the two roles; when buyers and sellers value continuity in their relations with one another; and when shopping is a costly process; then it may be quite rational for enterprises not to reduce prices when demand falls, and even to raise prices in the face of falling demand.[29] But, as Lachmann admits, Austrian economists have failed to provide an account of how prices are actually formed or to discuss the relation between price-setters and price-takers in markets. The possibility that rivalry between entrepreneurs could produce adjustment failures is not considered.

Neither school sees a need to distinguish labour from other factors of production in the adjustment process. Market-led adjustment implies a reduction of most people engaged in production to the status of mere factors of production, to be deployed so as to secure the most profitable output. It means treating people merely instrumentally, not as ends in themselves. The market does not encourage me to relate to others as fellow-citizens, members of the same community, who have a multiplicity of goals besides buying products, but only as factors in production processes that have produced the goods available to me to buy. I am able to buy these goods because I have acquired purchasing power through

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[27] For a critical discussion of this concept of adjustment, see G. Duménil and D. Lévy, 'The Classicals and the Neo-Classicals: a Rejoinder to Frank Hahn', *Cambridge Journal of Economics*, vol. 9 no. 4, 1985.
[28] For a comparison of neo-classical and Austrian approaches, see D. Lavoie, *Rivalry and Central Planning*, Cambridge 1985.
[29] See, for instance, A. Okun, *Prices and Quantities: A Macroeconomic Analysis*, Washington 1981.

selling my labour power as a factor in the production of goods for someone else. This is what is meant by Marx's claim that in a market economy the relationships between the producers take on the form of a social relation between things, 'a relation which exists apart from and outside the producers'.

Of course, people resist reduction to the same status as robots. They do not passively adjust to changes in demand and supply. They try to change the parameters in their favour; to acquire and exercise market power; to be less at the mercy of market forces. Those with more education, skills, resources, connections, organization are more successful; those with least bear the brunt of the burdens of adjustment. This resistance is frequently deplored by advocates of market co-ordination who argue that the resistance itself increases the burdens of adjustment; that if only people would accept that there is no alternative, the costs would be less.

The irony is that any economy peopled exclusively by such passive agents would be far from successful. For instance, technical progress depends on people trying to change parameters, not accepting that there is no alternative; high levels of productivity depend on people exercising imagination, initiative and forethought, even on the most routine assembly-line; people need to feel some attachment to their occupation, some pride and satisfaction in their job, if standards of quality are to be high. The class answer to this is to allow a privileged part of the workforce—entrepreneurs, managers, scientific researchers, university lecturers etc.—to exercise the initiative and imagination; and to require the mass of the workforce to be passive adaptors. When they refuse such passivity, the only option most of them have in shaping the production process is to be defensive obstructors of adjustment. The class answer is obviously not a solution to those who are genuinely interested in achieving a socialist society.

A further irony is that no economy can adjust solely through a market-led adjustment process because there are key resources which cannot be fully commodified. The most important are labour and the environment. Although labour power may be bought and sold, it is not fully commodified because it is not produced as a commodity. Although economic costs and benefits do play a role in decisions to have children, children are not generally treated simply as an economic resource, to be discarded if the balance of costs and benefits changes. Machines may be scrapped and crops burned if they become unprofitable, but except in extreme cases, once children have been born they will be treated to some extent as ends in themselves, not simply as economic resources, and will be nurtured if at all possible. A market economy requires altruistic, collective behaviour in the household, and a resource allocation pattern that is not determined wholly in response to price signals.[30] The patriarchal answer to this is to encourage women to be altruistic self-sacrificers for the general household good, with their unpaid labour providing a flexible cushioning that permits men to respond to market signals. This answer must be firmly rejected by socialists, not because we want to discourage altruistic, collective forms of behaviour, but because we want to encourage them in conditions of all-round dependence rather than one-sided

[30] N. Folbre, 'Cleaning House: New Perspectives on Households and Economic Development', *Journal of Development Economics*, vol. 22, 1986.

dependence.[31] The adjustment process in a market economy, in which there are substantial inequalities within the paid labour process and the household, thus depends on those with greater power being able to persuade or coerce those with less to be passive adaptors or altruistic self-sacrificers; the self-determination that comes from taking initiatives, so much celebrated by the Austrian School, is reserved for the few.

Micro-Foundations of Macro-Problems

Besides the behavioural requirements for successful market-led adjustment, there are also the problems of the quality of the outcome and the stability of the sequence. The atomized decision-making of the market enables choice to be made between alternative, piecemeal, marginal adjustments, but not between alternative states of the world: choice in the small does not provide choice in the large. This is particularly important for environmental issues. Hirsch gives the following example: 'As public transport deteriorates, we are given an extra incentive to use our own private mode of transport which in turn results in further deterioration and a worsened position of public vis-à-vis private transportation. The choice is posed at each stage in a dynamic process; there is no choice of selection between the states at either end of that process.'[32] The gap between micro-rationality and macro-rationality which atomized sequential decision-making opens up has particularly important implications for the overall stability of market systems; that is, for whether the adjustment process will tend to converge on some stable equilibrium or whether it will lead to over-shooting, to booms followed by busts, to sudden destructive adjustment through crises, to prolonged periods of stagflation.

Even the most ardent advocates of the market would recognize the existence of problems like the pig-cycle.[33] Many would also recognize problems of instability in financial markets, which have played a major role in generating the current unsustainable and unrepayable burden of Third World debt, and the recent long boom and sudden crash on the world's stock markets. As a postmortem in the *Financial Times* put it, 'Share price falls of 20 per cent in a day make a mockery of academic claims that stock markets are "efficient".' This instability is closely linked to the ways in which a sequential atomized decision-making process deals with uncertainty. The problem is that the steps which an isolated decision-maker in a sequential process takes to limit his or her risks, may increase the risk to which the system as a whole is subject. Thus floating interest rates, syndicated loans and cross-default clauses, which were all designed to reduce the risks facing any one bank lending to Third World governments, increased the risks to which the whole system of bank lending to Third World governments was subject.[34] Similarly, the existence of 'liquid' stock markets, on which it is possible to trade at any moment at little cost

[31] The useful distinction between all-round and one-sided dependence is made by Marx in *The German Ideology*, London 1974, p. 55.
[32] Hirsch, op. cit., p. 18.
[33] When the price of bacon is high farmers breed more pigs; when all the pigs are grown enough to be marketed for bacon, this pushes the price down and results in a reduction in pig breeding, which in turn leads to a rise in the price of bacon, and so on. Nove (op. cit., p. 210) recognizes this problem and suggests that some basic agricultural products should be on the list of prices subject to control.
[34] H. Lever and C. Huhne, *Debt and Danger: The World Financial Crisis*, Harmondsworth 1985.

per transaction, limits the risks facing individual investors but increases the risks to which investment as a whole is subject. It was this factor which led Keynes to describe stock markets as 'casinos' and to propose that they should be inaccessible and expensive.[35] Since he wrote they have, of course, become much *more* accessible and cheaper, which is one reason why the speed of the fall in share prices in the crash of '87 was much faster than in the crash of '29.

The same problem of systemic risk—resulting from the attempts of atomized decision-makers, linked only by the cash nexus, each to reduce their own risk in isolation—is also the fundamental source of the macroeconomic problem of deficient demand in a market economy. In the face of an uncertain future, isolated economic units attempt to maintain flexibility by holding money, which as generalized purchasing power is much more flexible than specific goods and services. This is the feature of a capitalist monetary economy which Keynes emphasized as liquidity preference. But the very flexibility that the social device of money permits to isolated economic units also makes a monetary economy composed of such units fundamentally volatile. Because of the flexibility conferred by holding money, individual units can quickly change their plans in response to a change simply in the state of expectations. 'Confidence' becomes a major determinant of the level of investment and capacity utilization. As Bhaduri puts it: 'Paradoxically, holding money as an *individual's option* to cope better with uncertainty may fail as a *social device*, by magnifying the influences of uncertainty on current economic activities.'[36]

This negative aspect is much more likely to predominate in an economy in which money functions not simply as a medium of exchange and a store of value, but as capital; that is, as money which is held to facilitate the acquisition not of goods *per se* but of more money. Consider the way in which households use money. They exchange one type of good (say, labour power) for other types of goods (say food and clothing) by exchanging labour power for money, and money for food and clothing. The reproduction of this chain of sales and purchases depends to some extent on the state of expectations—the household may delay making purchases and hold on to its money, if it expects prices to fall, for instance. But the extent to which a household refrains from purchasing in the expectation of future price falls is limited by the fact that needs for food and clothing cannot be delayed beyond a certain point. If the larder is bare, food has to be bought today, even though next week it may cost less.

The situation is different for enterprises which are compelled to make profit their over-riding goal. They are not (and cannot be) interested in goods themselves. For them what matters above all is the money that appears in the bottom line of the balance-sheet. (As Henry Ford is reported to have said, he was not in the business of making cars, but of making money.) This can be expressed in Marx's concept of the circuit of money capital $M–C–M^1$, in which the point is to exchange not one set of goods for another, but one sum of money for an even larger sum of money. The reproduction of this circuit is much more liable to be

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[35] J.M. Keynes, *The General Theory of Employment, Interest and Money*, London 1973, p. 159.
[36] A. Bhaduri, *Macroeconomics—The Dynamics of Commodity Production*, London 1986, p. 91.

interrupted by liquidity preference than is the chain of sales and purchases made by households. If an enterprise is not confident of selling its output, it makes more sense to hold on to money, rather than use it to buy means of production and labour power. No limit is set to its hoarding of cash by any need for goods in themselves—corporations do not need to eat. In such circumstances, money is fetishized, acquiring a life of its own.

Profit-seeking enterprises may hoard cash even if prices of inputs are falling—for instance, even if workers take cuts in money wages, and even if this leads to falls in the prices of other inputs. If the fall in prices generates expectations of a further fall in prices, then it is quite rational to continue to hold money and postpone expenditure.[37] So, no matter how flexible prices are and how quickly markets tend to move in a market-clearing direction, in a monetary economy there is no guarantee that Say's Law will hold. There is always a possibility of deficient demand. Mandel is quite right to insist that macro-economic problems are rooted in the market process.

The Keynesian Answer: Intervention in Markets

The Keynesian answer to the gap between micro-rationality and macro-rationality is for the state to intervene in markets as buyer, taxer, and lender of last resort so as to counteract the possibility of deficient demand —for instance, to supply more liquidity to offset an increase in liquidity preference which might otherwise lead to depression. But there are some problems inherent in market processes which cannot be overcome so simply. Intervention in markets changes the current parameters (prices, interest rates, exchange rates, tax rates, level of demand etc.) that market-makers and other decision-makers face, but not the characteristics of the market process itself. In particular, it does not change the social isolation of decision-makers, so that there remain overwhelming pressures for each to pursue their own interests in a myopic fashion, and to circumvent or subvert the changes introduced by central authorities.[38] Intervention in markets tends to be ineffective or extremely costly if agents in the market respond solely to piecemeal individual advantage; and yet the social isolation imposed by markets makes it difficult for individuals to do anything else. Intervention in markets provides no institutions to facilitate collective reflection before individual units take decisions.

This has become particularly apparent in the problem of how to deal with stagflation in the advanced industrialized countries. Conventional Keynesian fiscal and monetary remedies are unable to deal with a situation in which prices and wages are rising while output and employment are falling. This has opened the way for 'monetarist' policies to confront the problem by a combination of deflation and attempts to make markets more 'competitive', in the sense of more like the markets of Walrasian and Austrian theory, with prices falling as demand falls. Such policies impose enormous costs in terms of unemployment and wasted resources, and are ultimately self-defeating. Most markets fail to behave like those in Walrasian and Austrian theory not for lack of competition, but precisely

[37] Ibid., p. 91.
[38] See Hirsch, op. cit., ch. 9.

because of the existence of competition. An accessible exposition of this point is provided by Okun, who concludes: '. . . the appropriate functioning of customer markets and career labour markets requires a marked departure from the price flexibility of the competitive model. Customers and suppliers, employees and firms develop methods of reducing price variation that help to perpetuate relations and minimize transaction costs over the long run.'[39] At the micro-level, there are good reasons for firms to raise wages and pass on increased costs in price increases while reducing output and employment. By doing so, they may be better able to maintain the co-operation and loyalty of their customers and workforce than by cutting wages and prices.

The policy conclusion commonly drawn from this type of reasoning is the need for Keynesian monetary and fiscal policy to be supplemented by some kind of incomes policy which will restrain firms from raising wages, and thus make it possible for conventional Keynesian policies to maintain a higher level of demand without running into the problem of inflation. However, this penalizes households in relation to enterprises if there is no complementary mechanism restraining prices. Recognizing this, some advocates of incomes policies also advocate price controls. But if the process of setting prices is left in the hands of enterprises, there still remains a fundamental imbalance: households cannot monitor price formation in a way that enables them to enforce restraint on enterprises in the same way that enterprises can monitor wage formation and enforce a wage restraint programme upon workers.[40] Moreover, the vital knowledge of unit costs and profit margins remains in the hands of enterprises, and without this Price Commissions have no teeth, and the implementation of price guidelines cannot be effectively monitored. This imbalance could only be removed by socializing the price formation process, making it transparent to households by making information on unit costs and profit margins public. Capitalist enterprises will always resist this, because secrecy gives them a competitive advantage and private ownership implies the right to withhold information. State-owned enterprises will also resist such disclosure if they are enjoined to focus their efforts on maximizing their own surpluses, and to relate to other enterprises, and to households, primarily through the market. It is not surprising that price formation is such an explosive issue in the marketization of socialism.

Thus, Keynesian policies of intervention in markets, of fiscal and monetary policy supplemented by incomes policies and price guidelines, cannot be relied on to overcome the macro-economic problems which are rooted in market processes. It is no use saying we will use the market to solve micro-level resource allocation problems and use Keynesian policies to overcome macro-level problems because the two sets of problems are intimately related. The market as an institution will tend to undermine the successful implementation of Keynesian policies.

'There Is No Third Way'

Nove does recognize many of these drawbacks of the market, but is

[39] Okun, op cit., p. 342. There is a growing literature on the micro-foundations of macro-economic problems, examining how problems like stagflation derive from the nature of market processes. See, for instance, S. Fisher, 'Recent Developments in Macroeconomics', *Economic Journal*, vol. 98 no. 391, June 1988.

[40] Okun, op cit., pp. 344–46.

convinced that we shall have to accept them because the market is the only alternative to bureaucracy. Co-ordination can take place only through a cash nexus or a rules nexus, or some combination of the two. However, a number of people have argued that another kind of nexus does exist and plays a vital role in economic co-ordination. For instance, Dietrich,[41] rejecting the plans/market dichotomy, argues that both planning mechanisms and price mechanisms require for their operation a third kind of nexus, which he calls 'informal relationships'. He suggests that any kind of planning system, whether in private or public sector, cannot rely simply on its codified procedures. The bounded rationality of decision-makers means that informal relationships between them are necessary for the system to work: in support he cites studies of the internal operations of multinational corporations and of administrative systems. Similarly, within markets, the cash nexus is supplemented by informal relationships, the rationale for which is that independent decisions need not lead to optimal outcomes when economic units are interdependent. Okun[42] refers to such informal relationships as an 'invisible handshake', in contrast to the 'invisible hand' of the market. The 'invisible handshake' is seen as an implicit contract or a moral commitment which helps to cement continuity in relations between buyers and sellers. Hannah, reviewing a book on business history, writes: 'Much in current developments in the analysis of economic success implies that neither Adam Smith's "invisible hand" of the market nor Alfred Chandler's "visible hand" of bureaucratic hierarchies can explain it. Rather, a "third hand" of networks and interrelationships—sometimes based on trust and reciprocity alone, and sometimes on webs of more easily observed and measured connections—appears to be an important component.'[43] Much of the literature on the economic success of Japan, South Korea and Taiwan makes a similar point: a nexus of trust, goodwill and reciprocity has played a vital role in national economic development.[44]

Mandel's Third Way

Mandel also refers to such a nexus: he calls it 'objective informal co-operation' and stresses the value of continuity in buyer–seller relations, in a similar fashion to Okun.[45] However, Mandel goes beyond simply registering the existence of this third nexus; he argues that it is replacing the cash nexus and making prices economically irrelevant. I shall argue that this is not the case, but I share with Mandel, and the others mentioned above, the view that there is a third kind of co-ordinating nexus. The problem is not the absence of a third way; the problem is how to institutionalize it; and how to ensure that the co-operation is freely given, genuinely a product of trust and goodwill. In capitalist economies 'invisible handshake' may frequently be a misnomer for 'invisible arm twist'.

Mandel sees the problems of the market mechanism as stemming from the fact that it cannot achieve an ex ante equilibrium of supply and

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[41] M. Dietrich, 'Organisational Requirements of a Socialist Economy: Theoretical and Practical Suggestions', *Cambridge Journal of Economics*, vol. 10, no. 4, 1986.

[42] Okun, op. cit., p. 89.

[43] L. Hannah, 'Fully Interlocking', *Times Literary Supplement*, 28 July 1985.

[44] See, for instance, R. Dore, 'Goodwill and the Spirit of Market Capitalism', *British Journal of Sociology*, vol. 34 no. 4, 1983.

[45] Mandel, 'In Defence of Socialist Planning', pp. 22–23.

demand before resources are actually committed to production. He considers it essential that the balancing out of consumer preferences and resource allocation should occur before production starts. The value of planning, in his eyes, is that it can achieve this goal, so that mismatches between supply and demand cannot occur. In effect, the planning system would play the same role as the Walrasian auctioneer. Like many other socialist economists, Mandel is implicitly accepting the neo-classical standard of general equilibrium as the goal against which to judge a socialist economy.[46]

It is this way of posing the task that generates the enormous information requirements and the huge bunching of decision-making that have figured largely in the critique of socialist planning.[47] An 'ex ante equilibrium' approach to the task of co-ordinating a socialist economy means that information about production possibilities and demand for all types of goods has to be assembled and processed in a short period of plan preparation before resources are allocated and production takes place. This problem of *simultaneous* processing of vast amounts of information is at the heart of the argument that the existence of computers does not lessen the information problem. One advantage of market systems compared with central planning is not so much that they generate information at lower cost, but that they permit a relative autonomy of decisions, so that only a fraction of information about production possibilities and demand needs to be processed at any one time, in any one place.

Given this objective, Mandel's principal concern is to diminish bureaucracy and decentralize resource allocation. This would be done in two ways. Responsibility for determining the plan framework—the proportion of GNP to be devoted to each of twenty or thirty key sectors of production, the rate of growth, the volume of resources for 'non-essential' sectors, income differentials etc.—would rest with annual congresses of delegates from workers' and popular councils. Planners would still be required to draw up a more detailed plan based on this framework, utilizing input–output tables, indicating the resources available for each separate branch of production. But then the allocation of resources within each branch of production would be undertaken by self-managing bodies, such as congresses of workers' councils in that industry. The detailed product mix would flow from previous consultations between workers' councils and consumer conferences democratically elected by the mass of citizens. The bureaucracy of central Ministries for each sector of production would be largely eliminated.

The role of money and buying and selling would be reduced to a minimum; Mandel's goal is a withering away of money and buying and selling. This would be achieved by direct free distribution of goods required to satisfy basic needs: 'it will be quite possible to reduce the role of money in the economy as a whole, as non-priced goods and services become more numerous than goods and services bought.'[48] Thus, Mandel's

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[46] This parallel between neo-classical economics and the economics of many orthodox Marxists has been noted by Geoff Hodgson, op. cit., 1984, p. 158.

[47] See, for instance, Lavoie, op. cit.

[48] Mandel, op. cit., p. 17.

alternative envisages not some different process of price determination, but the abolition of prices. Echoing Engels, he writes, 'The simplest—as well as the most democratic—way of adapting material resources to social wants is not to interpose the medium of money between the two, but to find out people's needs just by asking them what they are.'[49]

However, if prices really are abolished, it will be impossible to carry out the first stage of determining the plan framework. Shares of GNP are only possible as a starting point if there is a way of aggregating resources into a single measure. GNP is in fact calculated by using prices. Mandel does not make it clear whether he would allow 'shadow' prices to be used for this purpose; but his starting point certainly requires the use of prices of some sort.

Provision is made for some choice by households: 'Various models—for example, different fashions in shoes—would be submitted to them, which the consumers could test and criticize and replace by others. Showrooms and publicity sheets would be the main instruments of that testing. The latter could play the role of a 'referendum'—a consumer, having the right to receive six pairs of footwear a year, would cross six samples in a sheet containing a hundred or two hundred options. The model mix would then be determined by the outcome of such a referendum, with post-production corrective mechanisms reflecting subsequent consumer criticisms.'[50]

Clearly households in this society would have to do a great deal of forward planning, and it is not clear how households would cope with unexpected needs. Once their basic items have been ordered for the plan period, what happens if the size and composition of households change unexpectedly (for instance through births and deaths) or needs change because of sickness or change of work or change of location? Mandel also fails to make clear what the 'corrective mechanisms' would be and how they would operate. This is in line with the productionist bias of his vision. Mandel is more concerned with what he calls the 'despotism' of consumers over producers, than with the need to ensure that production generates efficiently the appropriate mix of quality goods and services at the right times. In his view, 'the average citizens of an advanced industrial country are not only and not even mainly . . . consumers. They are still first of all producers. They still spend an average of at least nine to ten hours a day, five days a week, working and travelling to and from work. If most people sleep eight hours a night, that leaves six hours for consumption, recreation, repose, sexual relations, social intercourse, all taken together.'[51] It is obvious from this that Mandel's 'average citizen' is in fact an adult male —there is no mention of unpaid work in the household, no conception of consumption as requiring a household production process. Even for the adult male Mandel's argument is hollow: it is little consolation to a man who works in a car factory and whose car breaks down, through defects in its manufacture, to tell him that first and foremost he is a car producer not a car consumer. The trouble is that Mandel has the same abstracted view of consumption as something done by 'the consumer' as does the advertising executive. We are all users of products and services; most of

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[49] Ibid., p. 17.
[50] Ibid., p. 28.
[51] Ibid., p. 21.

us (except when infants or when sick) are also producers of them. The inevitable tension between our needs as users and our needs as producers cannot be resolved by asserting that we are 'first of all' producers. Moreover, it is not even true that we all think of ourselves as 'first of all' producers: many women see themselves as wives and mothers with responsibility for household management as well as workers, and many women are *not* in the paid workforce at all for significant periods of their adult lives. In the context of a very unequal distribution of household tasks between women and men, failures on the part of production units to supply appropriate quality-goods create special burdens for women. The adverse effects Mandel sees as stemming from 'consumer freedom', such as unemployment, speed-up, health hazards, 'the authoritarian discipline of production squads', do not arise from consumer choice *per se* but depend on the overall conditions in which choice is exercised.

It is unclear how the congress of workers' councils in each industry would decide the allocation of resources between enterprises. These congresses would in fact have to perform much the same task as Ministries have done in the USSR, and would face much the same problems. Mandel tends to gloss over these problems through his invocation of 'self-managing bodies'—for instance, his statement that a 'self-managing workforce would have no interest in hiding the facts'. But a particular self-managing unit *would* have an interest in hiding the facts from the congress of workers' councils if by so doing it could obtain a reduced workload or an increased input allocation. Self-management would mean that the entire workforce of an enterprise, and not just its managers, would stand to gain from disinformation. Self-management in itself would not overcome divisions between different self-managing groups. Mandel provides very little discussion of how self-managing bodies would be organized: 'self-management' functions rather as a *deus ex machina* to displace 'bureaucracy'.

An Economy of Repetition

The tasks of 'articulated self-management' are oversimplified because little allowance is made for the unexpected in Mandel's economy. The stress is on routinized, almost automatic processes: 'That is how most business is conducted today in capitalist—and "socialist"—countries: based on habit, custom, routine and the natural co-operation that grows from mutual knowledge and foreseeable results.'[52] This assumption of an economy of repetition almost dissolves the co-ordination problem. It is a key assumption supporting Mandel's emphasis on the achievement of *ex ante* equilibrium and his belief that money and prices can and should be eliminated from a major role in the co-ordination process. The assumption of an economy which does not require adjustment processes is buttressed by an over-simplified view of needs. Mandel proceeds from the widely accepted view that there is a hierarchy of needs to the assumption that the mixture of goods which satisfies people's needs can be known to planners in advance and is independent of prices. But the fact that needs for food, drink, clothing and shelter are fundamental does not tell us what kinds of food, drink, clothing and shelter people want. Mandel thinks we can rely for this necessary detail on extrapolation of current patterns of

[52] Ibid., p. 23.

sales of food, drink, clothing and shelter. But these patterns are determined by relative prices and income distribution (and by the power relations underlying these) as well as by needs. With changed relative prices and changed income distribution the pattern of consumption could change considerably. People do not decide how much to buy, even of bread, irrespective of the price of bread. Mandel considers that prices are not important in determining what people buy because he misunderstands the significance of 'fix-price' markets, and of the failure of consumers to respond to small changes in prices. These phenomena do not mean that resource allocation is not guided by prices; rather they mean that firms compare the costs of making frequent price changes with the benefits, and only change list prices when production costs move beyond a certain limit; the prices they do charge are constrained by consumer demand. Similarly, consumers compare the costs and the benefits of searching for lower-cost goods. Because of transaction costs in situations of limited information, and because buyers and sellers value continuity, prices in most markets are not fully flexible, and production is guided by quantity signals in the short run. But this does not mean that prices are redundant. For prices are an important determinant of profitability; and profitability guides investment decisions. Even in the short run, the phenomena that Mandel notes are indicators, not that prices do not matter, but that for most transactions, price *norms* are what matter. If an enterprise tried to increase profits by charging a lot more than the 'normal' price, it would soon lose customers. In keeping with his assumption of a static economy, Mandel implicitly assumes stability of relative price norms excepting in conditions of economic catastrophe. This ignores the effects of technical change: thirty years ago in Europe the relative price of TV sets was high and they were luxuries. Today, in relative terms, their price is much lower; and a TV set is widely regarded as a basic need, both in popular opinion and in the metrics of poverty used by social researchers.

Mandel asserts that 'it is much less costly and more reasonable to satisfy basic needs, not through the indirect road of allocation by money on the market, but through direct distribution—or redistribution—of the total resources available for them.'[53] But it is noticeable that his examples are all of extreme circumstances—Pinochet's Chile, famine in the Sahel, epidemics in Bangladesh. Of course, we would all agree that the most effective policy in such circumstances is direct distribution of food without payment. But are the measures required for disaster relief in conditions of highly unequal income distribution and private ownership of major resources really the same as those required to run a socialist economy in which major resources are socially owned and income distribution is relatively equal? Mandel fails to distinguish between the effects of capitalism and the effects of the price mechanism.

There is a case for the non-price distribution of certain goods—for instance, health and education—but this arises from certain characteristics of these particular goods. It is not the fact that they satisfy basic needs which is significant but particular kinds of interdependencies in their production and use. Mandel does not rest his case on such arguments: rather the elimination of prices and money is seen as desirable in itself.

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[53] Ibid., p. 20.

This leads to some strange suggestions—such that a social dividend should take the form of 'a specific extension of free vacation and travel for all (if that were the majority option).'[54] This is not much of a dividend for the minority who prefer to stay at home. Why not a social dividend in money form so that each could spend it according to their own preferences?

The crucial point about money and prices is that they enable us to consider alternatives, from deciding what percentage of national product to devote to health services to deciding which goods to acquire to satisfy our individual needs. Prices are not the only piece of information required to make choices between alternatives, but they are an indispensable piece of information for that.

Mandel's aversion to money and prices perhaps stems from the belief that money and prices are in some sense irredeemably capitalist forms. This is certainly the view of the Austrians, and is the basis for their belief in the impossibility of a well-functioning socialist economy. The view expressed by Lavoie that 'A price is a reflection of what is to Marx a contradiction of capitalism. It is both the organizing and rationalizing guide for production decisions and at the same time a reflection of the antagonistic social relations among buyers and sellers' would probably be shared by Mandel, and other anti-price Marxists. But the conclusion that I draw is not that prices and socialism are incompatible, but that the social relations between buyers and sellers must be changed so that they are *not* antagonistic; the price formation process must be a public process, not one controlled by enterprises; and information must be shared, with the nexus of trust, reciprocity and goodwill setting the limits within which the market operates, rather than being subordinate to the market.

II. Socializing the Market

It is much easier to criticize the ideas of others than to produce a viable alternative. The second part of this essay will on the whole be much more tentative than the first and will certainly be shorter. I am fairly confident about my starting point for this exploration of an alternative to both Nove's dual economy and Mandel's priceless economy, but many of the details represent my current stage of thinking rather than unshakeable convictions. My ideas have undergone considerable modification since the first draft, and will doubtless pass through further changes.[55]

The Production and Reproduction of Labour Power

Most discussion of socialist economic organization begins from forms of ownership of enterprises, but ownership is only important insofar as it has implications for the conditions of production and reproduction of labour power. In a capitalist economy labour power is separated from the means of subsistence, and the process of production and reproduction of labour power is a dependent variable, shaped by the accumulation process. The fundamental antagonism between buyer and seller is that between households as sellers of labour power and enterprises as buyers

[54] Ibid., p. 35.
[55] My rethinking owes a lot to comments from Michael Barratt Brown.

of labour power. This has to be changed, so that the process of production and reproduction of labour power is the independent variable to which the accumulation process accommodates.

To achieve this, households need to have access to a basic income without being forced to sell labour power to outside enterprises even when these are publicly owned. Their survival, at a basic but decent standard, should be independently guaranteed. They are then able to exercise genuine choice about selling their labour power to enterprises, rather than being impelled to sell by necessity. The precise way in which this may be achieved depends on the structure of the economy and the level of development: it will not be the same for a poor agrarian economy as for a richer industrialized economy. In all cases collective, public provision of health, education, water and sanitation services, free of charge, is likely to be appropriate. In a poor agrarian economy the access of households to land is likely to be a key factor; in a richer industrialized economy, collective public provision of a money income is more appropriate. Following the example of Nove and Mandel, I shall concentrate in more detailed examples on the case of a richer industrialized economy, but I shall try to formulate the basic ideas so as to be applicable to all types of economy.

In an industrial economy the foundation for household choice and freedom would be two-fold: the provision, free of charge of basic services, such as health and education, water and sanitation; and the provision to every citizen, in their own right, of a minimum money income to cover purchase of sufficient food, clothing, shelter and household goods for a very basic living standard (lentils not steak? mass-produced, not designer jeans? coconut matting, not pure wool carpets?)

The reason for free provision of services like health and education arises from particular characteristics of these services (interdependencies and externalities), not because they are 'basic'. A case could be made for free provision of other services, like urban transport, on similar grounds. But since practically all socialists are in agreement on these issues I shall not explore them in more detail. I shall, however, add to the list free provision of access to information networks: print, telephones, photocopiers, fax machines, computers etc. As will become apparent later, a necessary condition for socializing the market is equal and easy access to information. Pooling and sharing information is essential for the development of relations of goodwill, trust and reciprocity. This does not imply equipping every household with its own personal computer, modem, telephone and satellite dish; but it does imply ensuring that every household has access to such equipment in the same way as to schools and hospitals.

These freely provided services would need to be organized in such a way as to respond to household needs, and not simply the needs of their producers. This would require the establishment of forms of accountability to households, represented through users' organizations. Such forms of accountability exist in very embryonic form in some western European countries (for example, Community Health Councils in Britain) but they lack real power.

The other elements of basic income would *not* be provided free, for all the reasons advanced in discussing Mandel's proposals, but would be provided as a sum of money. There is a growing literature on the place of universal grants in the construction of socialism[56] which I shall not comment on in any detail here. One obvious question is: if everyone gets a grant income which frees them from the necessity of selling their labour power to enterprises, what is there to ensure that the goods on which to spend the grant will be produced? One answer is that most people will want to buy more than the grant allows (steak and wine sometimes instead of lentils and water) and will therefore be happy to sell their labour power to acquire a higher income. Another answer is that people will use the money to buy their own means of production and set up household enterprises or join with other households to form co-operatives. A further answer is that people will be sufficiently public-spirited to realize that they must contribute to production if the grant is to have any real purchasing power: but this is open to the 'free-rider' objection that some will be public-spirited but others won't. Clearly a great deal depends on the context in which this grant is made: advocacy of universal grants as an essential feature of a socialist economy does not in my view entail support for replacing welfare state capitalism, including legislation to protect employees' rights, with universal-grant capitalism.[57] The universal grant has to be taken as part of a package of social arrangements, of which the abolition of capital is a vital precondition.

I have one suggestion to tackle the 'free-rider' problem which also has the advantage of contributing to the socialization of the unpaid work required for the production and reproduction of labour power. The suggestion is that alongside the right to a grant should be the duty, on the part of able-bodied adults, of undertaking some unpaid household work of caring and providing for those who are unable to take care of themselves. Persons already undertaking care of a young or old or sick or handicapped person would be exempt. Everyone else would have to undertake some kind of unpaid community service; for instance, attending upon a handicapped child while that child's carer had time off for some other activity—leisure or work. The socialization of household and other unpaid domestic duties has always been a goal of socialist feminists. But there has perhaps been too much of a tendency to see this in terms of taking such activities out of the household—nurseries, old people's homes, mental hospitals, communal dining rooms and laundries. These arrangements have a role to play, but they take too negative a view of the benefits of personal privacy, of a room of one's own, of community care. Rather than simply aiming to reduce the scope of life within the household, I would suggest aiming at social recognition of the contribution to the work of caring for others in the household. The arrangement I propose could also be used for transforming the sexual division of labour in such work. Men could be trained to acquire more of the skills of caring that women typically exercise. The fact that all citizens, including children, would get a grant in their own right, would also do much to weaken the dependence of women and children on men.

Another worry concerns the real purchasing power of the grant. The real standard of living which such a grant can buy depends on prices, and will

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[56] See, for instance, articles by van der Veen and Parijs; Olin Wright; Nove, and Elster in *Theory and Society*, vol. 15 no. 5, 1986; and also D. Purdy, *The Theory of Wages*, London 1988.

[57] See the debate in *Theory and Society*, op. cit.

be eroded by inflation. The value of a money income as opposed to one in kind therefore depends very much on the process by which prices are set. There is thus a direct link between reliance on monetary grants—rather than what Mandel calls 'direct distribution' of basic goods—and the socialization of the market mechanism.

The majority of households will not only be buyers, they will also be sellers, at least at some stage in their life cycle. Some will choose to set up household enterprises or to join with other households in forming co-operatives owned by household members, and will be sellers of their products. These activities are likely to be small scale. The majority of households are likely to have members employed, at some stage or other in their life cycle, in larger-scale publicly owned enterprises, selling their labour power for a wage. Removal of the necessity to do this removes the basic cause of antagonism between buyers and sellers of labour power. But nevertheless, vital issues still remain about the organization of work within enterprises, the reallocation of labour as economic conditions change, and the determination of wages. Making labour power the independent variable means that labour power should not be treated simply as a resource on a par with machines and raw materials, even though in the account books of the enterprise both are represented by sums of money.

Worker-managed Public Enterprises

This implies that public enterprises should be worker-managed; that there should be a 'right to work' for those who are employees of public enterprises; and that basic wages should be determined through a 'socialized' labour market. Worker-management means that the total labour costs of an enterprise will generally not be treated simply as a cost to be minimized. This may lead to fears about 'inefficiency' and lack of innovation. But there is no reason why a worker-managed enterprise should not be concerned to reduce labour costs per unit of output through better organization of production, taking some productivity gains either in extra leisure or extra income. What a worker-managed enterprise will be better placed to resist are attempts to reduce labour costs per unit of output through increasing the intensity of labour, through cutting corners on health and safety, and through unemployment. These last three measures may appear to improve efficiency as indicated by profitability, but it is a one-sided efficiency which, while it may improve the satisfaction of the needs of households as buyers, worsens the satisfaction of the needs of households as sellers of labour power.

Workers in worker-managed public enterprises would not have the same degree of control as in co-operatives since there would be certain restrictions on the disposal and utilization of their assets. In centrally planned economies such restrictions have been enforced by a formidable central bureaucracy of Ministries of the various industrial sectors. Readers of NLR will not need persuading that these have to go. I propose that instead there be an office of Regulator of Public Enterprises whose job is not to set output targets and allocate inputs to public enterprises, but to enforce certain democratically agreed norms for the utilization of public assets; for instance, to prevent the employees of a public enterprise from appropriating its assets for themselves or their associates. The Regulator of Public Enterprises would exercise property rights over the enterprises on behalf of the community, while enterprise employees would be limited to use rights. There would be no capital markets with take-over bids and bankruptcies. Reconstruction of enterprises would be the responsibility of the Regulator. In return for this limitation on their rights, employees of public enterprises would have a considerable part of their income paid as a fixed wage, rather than simply a share of the enterprise's surplus, but there could be fluctuating productivity bonuses linked to individual, team and enterprise performance. Enterprises would buy their materials and equipment and sell their output in 'socialized' markets, with the exception of those providing free services. They would have to operate within a framework of tough environmental, health and safety and consumer protection regulations enforced by well-resourced inspectorates. They would normally be expected to be self-financing, except those providing free services, which would be financed from taxation.

New entrants would be encouraged. Teams of workers could apply to the Regulator for permission to set up a new public enterprise, and to be allocated public funds (for which interest would be charged) to do this. In some industries it might be appropriate to have a system whereby teams of workers could submit tenders to the Regulator to run public facilities for a given period. There would be scope for a variety of forms of public control and decentralized initiative.[58]

Obviously, situations would arise in which an enterprise was not able to pay its way and would need to be reconstructed. At this point the Regulator of Public Enterprises would be called in. No one would be made redundant. Instead, the Regulator would help formulate plans for the redeployment of employees to comparable jobs in other enterprises or to retraining, and then to new jobs. Employees would have well-defined rights in relation to this process, and would be able to take legal action to enforce them. The Regulator of Public Enterprises would provide transitional finance; and would also have rights to withhold finance in circumstances where workers were seeking feather-bedding rather than restructuring.

I am aware that I have said nothing about the internal procedures necessary to secure genuine worker-management. To the extent that there are large differences in the skills of different employees, and the scope of their jobs, it will be impossible for all to play an equal role. It is important to try to redress the disadvantage of those with lesser skills and jobs of restricted scope. An open information system, accessible to all employees, is essential. But ability to make sense of the information also matters, and openness alone will not guarantee that. So different groups of workers must be able to call on representatives of their own choice (which could be provided through trade unions) if they need help in formulating policy and in exercising their rights during restructuring. Neither will openness suffice if there is an unstable environment, requiring lots of discretionary powers in the hands of a few decision-makers. The possibilities for egalitarian forms of worker-management thus have implications for and depend on relationships between enterprises. It is not possible to have have a fully open

[58] For further discussion of innovation in forms of public sector organization, see R. Murray, op. cit.

information system within an enterprise and to keep secrets from other enterprises. A fully open information system *between* enterprises is, however, a key feature of socialized markets; and so are long-term links between buyers and sellers, which help to stabilize an enterprise's environment. Socialized markets, then, would be much more compatible with industrial democracy than are markets organized by enterprises.

Socialized Markets

Let me first set out some general characteristics of socialized markets. I will then consider in more detail how these might work for labour power, for producer goods (i.e. goods bought and sold between enterprises) and for consumer goods. A socialized market is one in which the market is made by public bodies, which are financed out of taxation of enterprises and households, rather than out of sales. It is also one in which the 'invisible handshakes', the relations of good will and reciprocity, which market economies have found it necessary to construct at least to some degree, are made into public information networks with open access rather than 'charmed circles' or 'gentlemen's clubs' which exclude 'outsiders'. Such networks would have secretariats financed by taxation, rather than by sale of their services.

The point of having public market-makers (let us call them Price and Wage Commissions) is to overcome the barriers to interchange of information which exist when markets are made privately. The Austrian school has always celebrated the extent to which markets generate information, but has not emphasized the way in which markets fragment information. Profit-seeking enterprises linked by the cash nexus have an incentive to conceal information about their productivity, costs of production and innovations. An advantage of the market is the way that it permits the dispersal of initiative; but a disadvantage is the way that it creates barriers to the sharing of information. A socialized market permits the dispersal of initiative, which is an essential feature of a society which liberates people, but creates new channels and incentives for individual initiatives to serve the common good.

This would require three kinds of activity to be undertaken by Price and Wage Commissions. First of all, Price and Wage Commissions would provide physical facilities for the interchange of information about terms of sales and purchases between enterprises, and between enterprises and households. The nature of these physical facilities must depend on the level of economic development. In a poor agrarian economy, the construction of marketplaces would be the first step. In an industrialized economy with access to micro-computers, an electronic marketplace would be possible. Electronic marketplaces are growing up, in fragmented fashion, in capitalist industrialized economies. A publicly provided electronic marketplace would have the enormous advantage of standardization—at the moment, the development of capitalist electronic marketplaces is hampered by incompatibility between different kinds of proprietary equipment. There are large economies of scale in information gathering and processing which an integrated, publicly provided, electronic marketplace could take advantage of to lower transaction costs. This would give enterprises and households a positive incentive to use the publicly provided market: it would be cheaper to do so than to undertake their own, fragmented, search for information about terms of sales and purchases.

What kind of information should be gathered and pooled by Price and Wage Commissions? It would need to go beyond information about prices per unit. Part of the point of having a socialized market is to make the price formation process transparent, subject to public checks. In industrialized market economies most enterprises form their prices by adding a mark-up to unit costs, but the costs and the mark-up are not disclosed. The Price Commission would require information on unit costs so that the public could evaluate the relation between costs and prices. Would this mean extra costs for each enterprise in generating such information? Not if enterprises already generated such information for their own internal management purposes. Cost accounting is in fact a basic management tool of enterprises in capitalist economics. The difference would be not an obligation to generate new information, but an obligation to disclose information generally kept secret. So the second task would be to enforce information disclosure on the basis of standardized accounting conventions, as a precondition for entry into the publicly provided marketplace.

A third activity would be to guide the formation of prices and wages. It is of course impossible for Price and Wage Commissions themselves to police every deal and centrally to control all prices and wages. There is always the possibility of unofficial 'grey' or 'black' transactions outside central control. However, Price and Wage Commissions can generate price and wage norms, and can supply the information to enable buyers and sellers themselves to 'police' prices and wages in a decentralized way. Taxation and contract compliance laws can also be used to encourage adherence to the norms and to penalize departures. Prices and wages offered in any particular transaction can be compared with the norms. If both buyers and seller wished, for a particular transaction, to depart from the norm (to secure quicker delivery, or a variation in quality for instance) then they would be able to do so. But they would also have the possibility of objecting to departures from the norm and requesting an investigation by the relevant Commission. If many buyers and sellers are agreeing to depart from the norm, that may suggest that the norm needs to be revised. In the short run, however, industrialized, decentralized economies tend to experience price stickiness, with quantity adjustment (through lengthening or shortening order books, falling or rising inventories, and changes in product mix) playing the major role. In the longer run, price adjustment becomes important because of the influence of prices in investment appraisal. Because of price stickiness, the Commission sometimes may need to anticipate rather than follow the course of transactions, and to change price norms *before* prices in recorded transactions have changed appreciably. For this purpose it will require information from the networks about the movements in inventories and capacity utilization. Norms need to be formed interactively on the basis of information from buyers and sellers, not imposed centrally, irrespective of the requirements of buyers and sellers.[59] An advanced economy can

[59] The idea of interactive price formation is to be found in Lange's model of socialist economy, but Lange's price formation procedure is different from the one suggested here. See Lange, 'On the Economic Theory of Socialism', in A. Nove and D. Nuti, eds., op. cit.

link the electronic marketplace to the electronic payments system. A publicly provided electronic system for settlement of deals will record the terms of all transactions made, and this information can be processed to reveal departures from the norm. Again, the lower transactions costs of a publicly provided settlement system will give buyers and sellers an incentive to use it. Electronic, 'cashless' settlement systems are in the process of being developed in capitalist industrialized countries, but as with the electronic marketplace, are held back by lack of agreement on technical standards and high start-up costs.

Public market-makers need to be complemented by publicly organized networks of buyers and sellers sharing some common interest to promote the direct interchange of information about such things as the specifications of goods and production processes, and about investment plans. Such information networks[60] would differ from bureaucracies, with their hierarchies of power and rules nexus; and also from markets in which relationships are discontinuous and mediated by the cash nexus. They would differ from the informal networks of subcontracting between enterprises, because they would be provided with secretariats publicly funded from taxation to facilitate information exchange; and there would be open access to every social unit meeting some publicly specified set of criteria. The focus of information networks would not be prices and costs, but quantities and characteristics of goods and production processes. It would be open to anyone to construct voluntary networks; but voluntary efforts would be complemented by public networks whose co-ordinators would have powers to require disclosure of information. Buyer–seller networks would enable some of the interdependencies of decision-makers to be manifested before decisions are taken; so that individual units could make their decisions in a more public-spirited way, considering the implications of their decisions for others, as well as for themselves.

Network co-ordinators, like Price and Wage Commissions, would have three kinds of function: facilitation of information exchange; enforcement of information disclosure; and an interactive role, in this case in the design and specification of goods and production processes. There would need to be a variety of networks: for instance, an energy network, a transport network, a skills network, a consumer goods network. The information that buyer/seller networks would focus on would be current and planned inventories, capacities, designs and specifications. Again, this does not require enterprises to generate information that adds to their costs, but rather to share information which they in any case need for their own internal purposes. For instance, in industrialized capitalist economies, information on levels of inventories is becoming of prime importance with moves to 'just-in-time' systems of inventory control.[61] Electronic technology has made it much easier and cheaper to monitor the level of inventories.

Buyer–seller networks would form the basis for a decentralized social planning process in which the implications of the investment plans of

[60] For another perspective on the potential of information networks in organizing a socialist economy, see Michael Barratt Brown, 'Information Networks', mimeo, 1988.
[61] A. Sayer, 'New Developments in Manufacturing: The Just-in-Time System', *Capital and Class* 30, Winter 1986.

different units for each other could be considered before such plans are finalized. The secretariats of such networks could interact with a national planning agency to generate an overall agreed strategy for the national economy. The desirability of decentralization of decisions on capacity utilization and innovation does not mean that no form of central planning for the whole economy is required. Indeed, there must be an overall strategy to identify which sectors are to expand and which to decline; how much is to be allocated for investment and how much for consumption; and which bottlenecks are to be widened, and which accepted as constraints. But the strategy would not be implemented by centralized allocation of material resources and output targets for each enterprise. Japanese and French strategic planning are perhaps the nearest to what I have in mind—but they lack many of the implementation procedures that would be open to a socialist economy; and the information networks on which they rely are 'old boy' networks, and trade associations, rather than open access networks. The Commissions and networks would operate in somewhat different ways in the case of labour power, producer goods and consumer goods, so these will now be considered separately.

The Labour Market

The Wage Commission would provide facilities for the interchange of information about job vacancies and job seekers. This in itself would be nothing new in the case of industrialized economies, but such facilities in capitalist economies have been woefully under-resourced, and have provided only very limited information about both vacancies and job seekers, leaving a large gap to be filled by profit-seeking, private employment agencies, and by both profit-seeking and non-profit-seeking research bodies. In particular, they have not provided comparative information about the general state of the labour market to enable enterprises and employees to *evaluate* the terms and conditions of job offers. Nor have they provided information about the basis on which relative wages are determined (whether formal job evaluation schemes or 'custom and practice').

To function effectively, the Wage Commission would require not just mandatory notification of vacancies but also information from enterprises on earnings and conditions of those in employment, and on the operation of job evaluation and grading schemes. This is the kind of information that personnel departments would in any case collect: what is additionally required is disclosure of such data, and further processing by the Wage Commission. Micro-processors with spreadsheets and graphics capacities would take very little time to summarize and present the data in a way that made sense to individual job seekers or recruiters. The Wage Commission, if properly resourced, would not add a costly layer of bureaucracy. Instead, it would replace a whole host of agents which, in capitalist economies, act to generate but also to fragment and conceal information.

The Wage Commission could assist in the enforcement of minimum standards for terms and conditions of work by refusing entry into the socialized market to job offers falling below these standards. In the same way it could assist in the enforcement of job evaluation procedures meeting certain minimum requirements (such as equal pay for work of equal value and valuation which does not always give greater weight to muscle power compared with manual dexterity). Such minimum standards would certainly need to be incorporated in legislation; but going beyond this, the Wage Commission could disseminate information about 'best practice' procedures, and promote improvements.

Besides collecting, processing and disseminating information, the Wage Commission would produce basic 'norms', both for relative basic wages, and for across-the-board increases in basic wages. This would be a key contribution both to securing a socially just income distribution and to controlling inflation. It is absolutely essential that *all* wages, from those of the (democratically elected) President to those of the least skilled manual worker, be included. (I am assuming that there is no property income apart from interest on personal savings.) Since everyone would be guaranteed a basic minimum income, it is likely that the relative wage of unskilled boring and unpleasant work would command a higher wage than is common at the moment, for otherwise no one would do it.

The establishment of relative wage norms would proceed through democratically controlled job evaluation exercises, and could be revised annually to take account of changing economic and social structures, as reflected in statistics on job vacancies and job seekers. The establishment of an across-the-board norm for wage increases would depend on macroeconomic decisions about the levels of aggregate investment and consumption, and on underlying productivity growth. Enforcement would be through a variety of channels: taxation; contract compliance; adverse publicity for violations; and the creation of an atmosphere of trust based on an open society, including an open process of price formation, with norms set by the Price Commission. The aim would be to make the process of wage formation as transparent as possible.

Under such a system the central focus of trade unions would undoubtedly shift from collective bargaining with enterprise management about the level of basic wages. But there would certainly still be an important role for trade unions: in enabling members to secure their rights; in bargaining about the organization of production and the disposal of enterprise surpluses (after taxation); in advising on national job evaluation standards and comparability exercises. Trade unions are an expression of the division of labour; and as the division of labour changes, so would their role. But for as long as there are substantial differences in the scope of jobs, with some carrying planning responsibility ('mental labour') while others carry only implementation responsibility ('manual labour'), then trade unions are essential for defending the interests of the latter. This should include the right to strike, and to genuine autonomy of organization.

There would be no involuntary unemployment because the Regulator of Public Enterprises would act as a kind of 'holding company' for people whose previous jobs had been scrapped; paying them their basic wages, and providing them with an organizational structure and training, until they could be relocated to new jobs. Networks between users and providers of labour power (including households and training and educational institutions) could play an important role in reducing the costs of such operations; and would also provide the basis of labour power planning by collecting quantitative information on occupational structure and forecasts of future needs. A variety of networks could be organized around clusters of skills, qualifications and occupations. Both users and providers of labour power have an interest in developing skills: creativity, self-discipline, knowledge of techniques etc. Skill networks would provide arenas for developing mutually beneficial ways of training and utilizing labour power that avoid the creation of dead-end jobs, and one-sided, limited, non-transferable skills. They would not end the possibility of tension between an individual's desire for job satisfaction and an enterprise's goal of being self-financing. But they would provide arenas in which different agents would have an opportunity to put themselves in the shoes of others, and look at training, education and labour process design from a variety of viewpoints. Besides collecting and pooling information, an important task of network secretariats would be to provide network participants with opportunities to share the experience of others, from role-playing exercises, to interchange of personnel between enterprise and educational and training institutions, to acting as advisers for each other's activities.

Without measures to socialize the labour market, market allocation is almost bound to involve unemployment. In countries where market socialism has been taken furthest, such as Hungary and Yugoslavia, unemployment is growing, while job-finding and retraining facilities are hopelessly inadequate. But centralized, bureaucratic resource allocation through Ministries stifles productivity growth and innovation. The sort of measures I have proposed stand some chance, I think, of avoiding these two undesirable extremes.

The Producer Goods Market

The buying and selling of producer goods takes place between enterprises. There is no reason why publicly owned enterprises should not exercise decentralized initiative in buying and selling producer goods within certain guidelines laid down by the Regulator of Public Sector Enterprises to regulate their expansion and contraction and to prevent misappropriation of assets. Little more need be said about the activities of the Price Commission for producer goods in providing facilities for the interchange of information about terms of sales and purchases. The information disclosure role does warrant particular emphasis because cartellization and price rings are particularly prevalent in some producer goods industries in capitalist countries. Can we have any confidence that enterprises will use agreed accounting standards and will disclose unit costs as required? Won't they keep two sets of books, one for the Price Commission and one for themselves? The question of quality of information is an important consideration. There are well-known problems in systems with centralized resource allocation because enterprises do not supply central planners with truthful information about resource requirements per unit of output. In such systems there is an in-built incentive for enterprises to supply 'disinformation' because the central planners both set targets for enterprises, and allocate enterprise inputs required to meet those targets. Naturally, enterprises have been inclined to inflate their estimates of inputs required per unit of output to make it easier to reach output targets. Are there any incentives to under- or over-report unit costs to the Price Commission? To answer this we need to consider the nature of the price formation process.

It is well established that most enterprises in capitalist industrialized economies set prices as a mark-up on their unit costs, the size of the mark-up being constrained by the behaviour of competitors, and of customers. The Price Commission would form price norms in a similar way, except that the basis would be average unit costs, and the mark-up would be determined by the investment needs of the economy. The higher the overall rate of investment required by the strategy formulated through the planning process, the higher would be the mark-up. The mark-up could vary across industries to generate a higher surplus in industries in which the strategy requires expansion, and a lower surplus in industries in which the strategy requires contraction. This is the price formation procedure adopted by Kalecki,[62] and differs from the trial-and-error procedure advocated by Lange in that it does not aim to generate market-clearing price norms, but rather to generate price norms that will encourage restructuring in the right direction through differential returns to different activities. It allows for the pricing of non-standardized, one-off goods, which are characteristic of some sections of producer goods industries. Price norms could be reviewed annually, but there is no need for them all to be reviewed simultaneously. Between annual review price norms could remain stable. The review would then decide to what extent cost and demand changes (as revealed in inventory changes) required changes in prices. The extent to which cost increases would be reflected in higher price norms would depend upon the extent to which levels of production in a particular sector needed to be increased, decreased or maintained stable. The price formation process would be transparent in the sense that the public would know the basis on which price norms were determined, and could check actual prices against the norms. It would provide an incentive for efficiency since norms would be related to average costs and mark-ups: a firm with lower than average costs would be able to make a larger surplus, and would have funds for expansion or higher bonuses for its workers. It would diminish the power of large enterprises to bolster their own profit by squeezing the profit-margins of their small subcontractors. It would also counteract a tendency for enterprises to try to maintain profit margins even when capacity is not fully utilized, and to be reluctant to cut prices to increase capacity utilization; tendencies which characterize enterprises in capitalist economies and underpin the possibility of deficiencies in aggregate demand.[63]

Such a procedure for forming price norms (coupled with a variety of sticks and carrots to encourage adherence to these norms) would help to implement the macro-economic strategy and diminish the possibility of the economy being caught in a stagflation trap. The avoidance of macroeconomic problems and the facilitation of restructuring are the fundamental reasons for not leaving the price formation process entirely in the hands of enterprises. Decisions about levels and mixes of output, and about input mixes, would be left to enterprises (informed by the information networks), but the price formation procedure would be socialized. The feasibility of this procedure clearly depends on the quality of the information transmitted to the Price Commission. One can imagine situations where a small group of enterprises dominates an industry, and

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[62] M. Kalecki, *Selected Essays on Economic Planning*, Oxford 1986.

[63] This tendency can be theorized in various ways—Okun's 'invisible handshake' and Kalecki's 'degree of monopoly' being two of the possibilities.

might consider colluding to transmit inflated cost information to the Price Commission. This would enable them to earn higher surpluses than the Price Commission would envisage.

There are a variety of measures which could be used to guard against the possibility of disinformation: a well-resourced inspectorate with powers to seize company records; a requirement that computerized management information systems should be 'open access'; a variety of measures to make it just too complex and costly for an enterprise to keep two sets of books (or computer tapes, floppy discs etc); and measures to facilitate new entrants and to diminish collusion possibilities (such as competitive tendering for operational contracts of limited duration). The Price Commission would need considerable resources—but these could be provided by redeployment of resources which in capitalist economies are absorbed by financial institutions in the capital market. The skills of an investment analyst working for a merchant bank would be just the sort of thing the Price Commission would need.

Networks between buyers and sellers of producer goods would have two particularly important functions: the minimizing of fluctuations in capacity utilization because of bunching of investments, which can be quite pronounced for many producer goods industries; and the diffusion of technical innovations. In capitalist economies there is considerable collaboration between buyers and sellers on the design and specification of producer goods and the indication of future investment needs. In response to new electronics-based automation technologies, inter-enterprise networks in capitalist economies appear to be extending their scope, involving not just long-term contracts for particular products but also integration of design and planning. Some researchers describe this as systemofacture, in which the production unit consists of a cluster of integrated, yet separate, enterprises which enjoy detailed co-ordination of product development and production schedules, utilizing micro-electronic information processing technology.[64] However, this is limited by the rights of privately owned enterprises to keep information secret if it gives them a competitive advantage. In the scenario of socialist economy developed here, this right would not exist. Public enterprises would have to share information about their technological innovations and production plans as a condition for utilizing publicly owned assets. Co-operatives and household enterprises would have to share information as a condition for admittance to the publicly provided markets and networks. To provide some material incentive for innovation a fee could be paid for deposit of specifications in a Technology Bank to which all network members would have access and enterprises could apply for grants to undertake R&D. But competition through concealment would be as far as possible minimized. (In this respect, the socialist economy I envisage would come a lot closer to the neo-classical models of competition, which assume all technologies are known by everyone, than any capitalist or market-socialist economy can.)

The Consumer Goods Market

Many of the procedures discussed above would also apply to the case of

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[64] R. Kaplinsky, 'Electronics-based Automation Technologies and the Onset of Systemofacture', *World Development*, vol. 13 no. 3, 1985.

consumer goods. Here I want to focus on what is different: the fact that households are the buyers in this market. On the one hand, households do not have the breadth of resources or specialized knowledge that enterprises have. On the other hand, if households pursue a narrow and piecemeal policy of considering each item of purchase separately to get the best bargain, ignoring interdependencies in its conditions of production and use, their actions will frequently be self-defeating.[65] A socialized market would put more knowledge in the hands of households and make them more aware of interdependencies between their activities as producers and their activities as consumers.

The information provided by the Price Commission would enable households to see just how the price of a good in the shops is formed: how much goes to each activity contributing to the total price; how mark-up and costs split at each point in the chain of production; how much tax or subsidy is incorporated in the price. When a price rises, it would be possible to show households the reason for the rise—which costs had increased, which mark-ups had been expanded in order to provide incentives for the expansion of production. The reaction of households to price rises is a critical factor in the operation of both capitalist and actually existing socialist economies. In neither type of economy have households been provided with enough information to evaluate prices, to decide if rises are justified, or to distinguish between changes in relative prices, necessary for readjustment of the economy, and rises in the general level of prices. Indeed, downward price stickiness has meant that adjustments in relative prices could only be achieved as part of a rise in the general level of prices. No price system can produce a rational system of resource allocation if prices do not cover current costs and future investment needs. But since price formation is opaque, it is not surprising if households distrust the authorities (be they capitalist enterprises or socialist planners) when they announce that price rises are necessary. What is required is not detailed information about *all* goods and services; it could be provided for those that are staple items, accounting for a large proportion of household expenditure.

Sub-contracting networks already exist in capitalist economies between large retailers and their suppliers, similar to those existing in the case of producer goods. Indeed retailers like Marks and Spencer, the Body Shop and Benetton are very good examples of systemofacture. But households are not integrated into such networks: all they have is that much more nebulous 'invisible hand shake' or 'objective social co-operation', which amounts to little more than repeat purchases from the same source secured by 'sticky' prices. To redress the relatively weak position of households as consumers, I propose that a Consumer Union should be formed to act as a network co-ordinator between households and enterprises producing, wholesaling and retailing consumer goods and services. It would provide information about the *quality* of goods and services in the same way that Consumer Associations do in some industrialized capitalist economies; but it would go beyond that. It would also provide information about the conditions under which goods and services are produced, and about their environmental implications. Households

[65] For many examples which illustrate this point see Hirsch, op. cit.

which wanted to avoid purchasing goods made under certain conditions and to favour goods made under other conditions would have the information to do so. Goods produced under 'best practice' conditions (from the point of view of ecology, or equal opportunities, or humane working conditions) could be highlighted. The Consumer Union would educate households to take a wider view about the implications of their purchases than simply looking for the cheapest way to fulfil their immediately perceived needs. It would help households to appreciate that what seems in the short run, and from the individual point of view, the 'best buy' may turn out to have all kinds of detrimental spin-off in the long run. The Consumer Union would thus address many of the concerns of 'eco-socialists'.

The activities of the Consumer Union would go beyond this educative role, for they would also offer services to make shopping easier and to enable households to take some initiative in the design and specification of goods. The Union would have branches in every locality, keeping up-to-date information about availability of goods and services, which could be relayed to households via TV sets equipped with systems like Prestel. The use of point-of-sales electronic technology makes gathering data about the level of stocks speedy and simple. If a household wants to know where in the locality it can purchase a pair of dark-blue corduroy trousers for a nine-year-old boy, the Consumer Union can supply this information, avoiding fruitless quests to several stores. The Consumer Union would also enable households to initiate the commissioning of products rather than simply respond to initiatives of suppliers. They would include in their staff not just those with expertise on consumer's rights and consumer protection, but also designers and engineers able to identify unsatisfied needs and to work with suppliers to ensure that they are met. Suppliers, of course, try to identify unmet sales opportunities, but that is not quite the same thing, for they have a built-in incentive to mould the expression of needs in ways that create maximum income for themselves. It is difficult for households to determine the best way of meeting their needs if they are unaware of the range of technical possibilities: the specification of needs is often difficult in the abstract, and is much easier when confronted with a range of definite possibilities. Of course, there is a potential conflict between economies of scale and customizing products to meet specific needs. But this conflict is being diminished by the development of flexible specialization, the use of equipment which has the capacity to switch from producing batches of one type of output to batches of another type of output without down-time for retooling.

All enterprises wishing to produce or sell goods and services to households would need to register with the Consumer Union, and to disclose information about their products and methods of production, and about inventory levels—information which they in any case need for their own purposes. A great deal of the resources deployed in capitalist economies on market research and advertising could be redeployed to the Consumer Union, which would enjoy economies of scale and reduced transaction costs. It is essential that the Consumer Union should be financed from taxation to enable its advice to be independent and to prevent it from having to utilize 'hard-sell' techniques on its own behalf.[66]

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[66] It is ironic that in Britain the Consumers Association, which is financed out of subscriptions, now resorts to such techniques to acquire new subscribers.

There would be competition in this economy, but it would be bounded competition, and the bounds would go beyond anything existing in any capitalist economy. There would naturally be health and safety and environmental protection legislation, and legislation to protect the rights of individual employees or consumers. But in addition, there would be bounds placed by the independent access of households to the means of life, and by the absence of private property in knowledge. This latter absence would not stifle innovation since fees would be paid by the Technology Bank. In any case, extra profits are not the only spur to innovation: more leisure time, less arduous work, social esteem, the sheer pleasure of producing new knowledge and solving problems are all powerful incentives. Moreover, the Regulator of Public Enterprises would want to know about the innovation record of teams of workers in determining who should get contracts to run new enterprises, and how restructuring should take place.

Co-ordination and Conscious Control

Let me now summarize the way in which I envisage socialist economic co-ordination taking place. First, the objective of co-ordination would not be an *ex-ante* equilibrium in which supply and demand are equated before production takes place. That is an impossible goal. The problem with private market co-ordination is not its failure to achieve this goal, but its failure to achieve adjustment in the right direction. There are a variety of reasons why self-financing enterprises will *not* necessarily reduce prices for goods in excess supply and increase them for goods in excess demand. Kalecki rooted price stickiness in oligopolistic collusion; more recently, Keynesian and institutionalist economists have begun to explore other possible causes, linked to the information and transaction costs of a market economy of self-financing enterprises. The micro-level adjustment failure of the market mechanism underlies the macro-level problems of unemployment and inflation which are of major concern to socialists. Micro- and macro-level problems cannot be treated separately. So the objective is a co-ordination process that helps to avoid unemployment and inflation, while at the same time being conducive to increases in productivity and the meeting of people's needs.

Overall economic planning has a vital role to play in setting the parameters in which individual enterprises operate, and in anticipating major interdependencies. But it would take the form of a guiding strategy, a vision of the future, not a procedure for detailed allocation of material inputs. The planners in the Central Office of Economic Planning would draw upon the information networks of buyers and sellers of key resources in formulating alternative scenarios, of which one could be chosen by some democratic political process. Fiscal and monetary policy would play an important role in plan implementation; but so also would relations of reciprocity, good will and persuasion, as happens in Japanese economic co-ordination.

Enterprises would *not* be subject to binding administrative directions from ministries, though they would—if not co-operatives or self-employed—be publicly owned and subject to the Regulator of Public Enterprises. Employees of public sector enterprises would have use rights but not property rights, and such enterprises would be self-financing. The redeployment of labour power between enterprises would be organized by the Regulator. Enterprises would be free to choose their suppliers and customers, but their inter-relations with each other, and with households, would be mediated by Price and Wage Commissions and network co-ordinators, including a Consumer Union. Enterprises would make contact, and keep in contact, with customers and suppliers through public channels, financed from taxation; and these channels would be open information channels. Price and wage formation would be transparent; the design of products and production processes would be transparent. The barriers to information transfer constituted by privately operated markets would be dissolved.

Such a system of co-ordination does not require simultaneous processing of large amounts of information, of the kind necessary for effective central planning (which, even with the latest computer technology, is argued to be unfeasible). Rather it requires the gathering and processing, at discrete intervals, in separate bundles, of information already generated by enterprises for their own use, such as unit costs and level of inventories, and process and product specifications. The barrier to this is not technical: current levels of micro-processor technology can certainly handle this kind of information processing very rapidly. Poor economies can use electro-mechanical techniques (or even abacuses) and be more selective in the range and the depth of socialization of markets. The public information system would not be additional to, but would replace the myriad fragmented operations of private enterprises, and would enjoy considerable economies of scale. The barrier is not technical: it is social and political. Those with positions of power to preserve will resist information disclosure. There is no infallible recipe for enforcing disclosure, but in an economy in which the possibility of taking initiatives is widely dispersed, and in which there is no capital market for buying and selling enterprises, there is more likely to be recognition of the mutual benefits of information sharing.

Open access to information is the key to conscious control of the economy. There has been a tendency among Marxists (beginning with Marx) to interpret conscious control in terms of gathering all relevant information at one decision-making point and of taking decisions with full knowledge of all inter-connections and ramifications. That is an impossible, and an undesirable, goal. Conscious control is better interpreted as open access to all available information concerning the product and its price, so that any decision-maker has access to the same information as any other.

This has implications for the question of how we get from where we are now to the kind of socialist economy I envisage. In capitalist economies the important thing seems to be to attack capital's prerogatives over information, and to begin to develop networks which prefigure those a socialist economy would need.[67] A whole host of issues ranging from market regulation, restrictive practices and cartels, environmental issues,

[67] An example of a 'prefigurative' network is Twin Trading, which under the leadership of Michael Barratt Brown, links producers and users of goods and services in the UK and a variety of Third World countries.

consumer protection, to industrial democracy, and national industrial strategies, to open government, could be woven into a coherent campaign around open access to information. Within this, priorities need to be chosen from the point of view of those with least access to and control over information, the people with least education and skills, who are generally also the poorest. This would have the advantage of capturing the moral high ground and of appealing to a wide range of non-socialists as well as to socialists, while going to the heart of capital's ability to exploit labour.

In actually existing socialist economies the important thing seems to be to attack both the bureaucracy's prerogatives over information *and* enterprise management's prerogative over information. Glasnost is certainly a step in the right direction: but it needs to go much further. Market socialism by itself reinforces and extends the power of enterprise management, at the expense of ordinary workers. Measures to create markets must be complemented by measures to socialize markets.