Chapter 15

Review of other socialist proposals

We have in the past tended to avoid expressing criticisms of other socialist writers, prefering instead to concentrate our critical faculties on prominent conservative economists. For the French edition of this book the publishers have asked us to review several contemporary socialist authors in order to explain where we stand in relation to them. One should bear in mind that ideas developed independently by different writers may coincide on some points and differ on others. Some of these differences may, in the big picture, be relatively unimportant, reflecting as they do each individual author's journey to their current position from different cultural starting points. Other differences may be more significant insofar as they relate to substantive policy issues. One may have the most varied views of history withouth this causing dispute if one's views on what should be done in the future coincide. Thus, in our reviews that follow we attempt to distinguish what we consider to be essentially scholarly differences with others, from politically important differences.

Parecon

Parecon is both the title of a bookAlbert (2003), and a neologism that its author intends to replace the word socialism. He feels that the word socialism has become so encumbered by notions of 'market socialism' that it has become necessary to invent an entirely new word to designate the non-market post-capitalist system that he advocates. Parecon stands for Participatory Economics, and the concept is the joint work of Michael Albert and his frequent collaborator Robin Hahnel.

Albert can be thought of as either a libertarian socialist or an anarchist, and we would consider ourselves in sympathy with a considerable portion of what he writes, particularly his critique of the market and of market socialism. We do have differences with him on some issues of policy and on his analysis of the causal mechanisms underlying problems both with capitalism and hithertoo existant socialisms. If below, we seem to be rather critical of him on these points, it should not obscure the point that in terms of the overall spectrum of modern politics we are very close neighbours.

The points on which we agree in terms of general objectives are:

- A payment system based on labour (he calls it one based on effort). The objectives here are broadly the same though there is some difference of emphasis.

- A planned economy. Albert calls it computer aided facilitation, but this is just another name for planning. From our standpoint though, Alberts account of how planning (facilitation) is to work is rather vague.
- The use of labour time as the basic mechanism for costing. Albert seems to see labour time as only a first approximation to costs, but he assumes labour values as the starting point.
- The desirability of participatory democracy, though the institutions advocated for this by Albert differ somewhat from those advocated by us.

Albert starts his book with a discussion of what economics is and what economies are. He looks at ownership, allocation, remuneration and the division of labour as key economic concepts. Albert has a relatively light touch when looking at property:

> Production occurs in workplaces that utilize hammers and assembly lines, filing cabinets and computer networks. Private individuals may own these means of production and distribution. The state may own them. The whole populace could own an equal share of alI means of production. Or, for that matter, a society could have no concept of ownership of productive property at all.(Parecon, page 20)

Notice that ownership is only mentioned in the context of instruments of labour, indeed only in the context of contemporary instruments of labour. Ownership of land, products, and labour is not mentioned. Similarly ownership by individuals and the state are mentioned, but not ownership by abstract legal personalities such as firms, churches, temples, educational institutions. If one is writing a popular propaganda book this is perhaps understandable, but it at least raises the question as to whether there is an overall theory of property relations behind Parecon and if not, how are we to be sure that the property relations Albert goes on to propose have been coherently thought out.

According to Albert, after property, the next most important feature of an economy is its allocation mechanism:

> AlIocation exists in alI economic systems and the institutions which accomplish alIocation have a profound impact on alI economic life. AlIocation institutions include competitive markets, central planning, and horizontal planning. Within markets buyers and sellers enact decentralized exchanges with one another. Each pursues personal interests and the sum of their separate efforts define the economy's overalI activity. With central planning a relatively few planners assess society's possibilities and announce the amount of each product to produce and where everything should wind up. Their instructions sum to society's overall activity. With participatory planning alI society's members assess their own and others' situations and cooperatively negotiate via their worker and consumer councils their individual and joint actions. Their deliberations and negotiations sum to society's undertakings. (Parecon page 21)

One can ask here whether it is right to conceptualise this in terms of allocation, and if so, whether the listing of forms is sufficient. Again, he may have wished to focus only on the economic institutions that are polemically interesting to him, market, plan and participation, but in so doing his vision excludes a large part not only of the history of allocation, but also the mechanisms by which a vast part of the product of modern civilisation is allocated. By creating a binary opposition between markets and plans, he excludes from view other forms of allocation like tithes, labour rents, taxes, pensions etc. Since taxes account for of the order of 40% of national incomes in developed countries, this is a fairly significant oversight. The oversight seems pervasive. It is difficult in reading through the book to see how the various levels of councils described in the proposal are to be funded and budgeted for, what mechanism will ensure that each has a budget, how big that budget will be, what it will be denominated in etc.

> Economies have divisions of labor. Each person does a job that conveys to him or her different responsibilities and different decision-making influence. The extreme possibilities for dividing labor into jobs are twofold: We can opt for typical hierarchical arrangements that include highly differential access to empowering and quality of life work circumstances. or we can opt to provlde people with equalIy empowering and enjoyable work.

Reading this passage we are struck by how much it reflects a commonsense western view of economic life. Do people in traditional peasant societies have 'jobs'? Did slaves have 'jobs'? Surely the idea of people having a job only arises with the development of the labour market in modern times?

It also seems that when talking of the division of labour, Albert's focus is very much on the topics mentioned: hierarchy or empowerment. But this is to enter the topic from the top and at a tangent. One first has to look at the foundations of the division of labour in society as Adam Smith did. The division of labour in society is first a distribution of the labour time available to society between different concrete tasks. This corresponds to what Marx called abstract and concrete labour. Unless society has developed sufficiently in its level of civilisation and culture there are just not many different concrete types of work into which labour has to be distributed. As civilisation develops, so does the division and specialisation of labour. With this division of labour the skills and proficiency of each individual become more developed and more different kinds of products come to be made– pottery, ironwork and the skills of the smith, shoes and skills of the cobbler etc. This is the craft level of the division of labour lasting from the bronze age to the dawn of industrialism. In this stage the division of labour grows in proportion to the number of types of distinct products. Then we have a second form of division of labour, that in manufacturing, where, still on the basis of hand production, tasks are subdivided further and further to speed up the production process. Smith's example of the pin factory is the paradigmatic case here. What is new in this period is that :

(1) There is a substantial rise in labour productivity
(2) The number of detailed jobs, for jobs they now are, grows faster than the number of products, since each product is the collective result of a sequence of operatives working in turn.
(3) The skill and intelligence required by each individual operative declines as they become 'detail workers', repeating the same small operations day in day out.

Following this came a process in which the division of labour is structured not by the skills of workers themselves but they the machines they operated: sailor, lorry driver, sewing-machinist etc. Starting from the early 19th century, machine industry gave rise to a division of labour formed after the mutual feed-forward relations of machines themselves. Rather than the division of labour being a choice between two abstract principles : hierarchy or empowerment, it is something that has arisen out of the nature of the production process itself and has been intimately linked to the development of technology and culture. One thus has to ask: to what extent is it changeable without a change in the very mode of material prodution?

Take one of Albert's poles, hierarchy. To identify this with a division of labour is too simple. Hierarchies have both a social and a technical character. Socially they involve a power of command and direction which, in the context of capitalist industry, makes the person giving the commands an agent for the employering company's interest. But at the same time the hierarchy may have a technical or efficient side. The technical side arises from where only a limited number of people have the skills to do a particular task.

In the wake of the introduction of the metric system in France towards the end of the 18th century, Gaspard de Prony, director general of the French Ordnance Survey, was given the task of producing a set of decimalized logarithmic and trigonometric tables. Given how proud the French were of their new metric system, Prony's charge was "not only to compile tables which left nothing to be desired about their accuracy, but also to make of them 'a monument to calculation the greatest and the most impressive that had ever been executed or even conceived'." Prony quickly realized that, using existing methods, he would not live to see the project completed. What could he do? He took inspiration from Adam Smith.

> Having one day noticed, in the shop of a seller of old books a copy of the first English edition 1776, of Smith's 'Treatise on the Wealth of Nations', I decided to acquire it, and on opening the book at random, I came across the chapter where the author had written about the division of labour; citing, as an example of the great advantages of this method, the manufacture of pins. I conceived all of a sudden the idea of applying the same method to the immense job with which I had been burdened, to manufacture my logarithms as one manufactures pins. de Prony (1824)

Babbage, with his eye for interesting technological advances, took note of de Prony's work and discussed it at length in his *Economy of Machinery and Manufactures*. Prony's workforce was divided into three sections. The first section, composed of "five or six of the most eminent mathematicians in France", had the task of investigating, "amongst the various analytical expressions which could be found for the same function, that which was most readily adapted to simple numerical calculation by many individuals employed at the same time". This then they passed on to the second section, consisting of "seven or eight persons of considerable acquaintance with mathematics", whose job was "to convert into numbers the formulae put into their hands by the first section". The numerical versions of the formulae were then delivered to the third section, the engine room of the business:

> The members of this section, whose number varied from sixty to eighty, received certain numbers from the second section, and, using nothing more than simple addition and subtraction, they returned to that section the tables in a finished state. It is remarkable that nine-tenths of this class had no knowledge of arithmetic beyond the two first rules which they were thus called upon to exercise, and that these persons were usually found more correct in their calculations, than those who possessed a more extensive knowledge of the subject. (Babbage, 1832: sec. 244)

The bulk of the work, therefore, was done by people who had no knowledge of mathematics other than the 'first two rules of arithmetic', addition and subtraction. Prony preferred to use people with the minimum possible level of skill to do the bulk of the work. Such people were obviously cheaper to employ, but also had the advantage that their lack of knowledge made it easier to reduce them to the role of automata. Employers in the UK today are beginning to take a similar attitude towards the computing graduates they employ, saying that their technical training in mathematics and computing should be drastically reduced, to about a third of their university education. The rest of their time should be spent on business studies!

But there are certain general points about the division of labour to be learned from this. Firstly that at a certain period in time there may be very few people able to perform a certain intellectual task — deriving the formulae for computing trigonometric tables for instance. This lack of general education thus enforces a hierarchical division of labour. Later, employers may prefer this form of division of labour purely on cost grounds, which ultimately reflects a social cost saving in training and education. We can see this form of hierarchy both in work which requires mental labour and in manual work, where for example an architect or master builder draws up plans for a house which are later executed by various trades.

In order to abolish hierarchical divsions of labour like this one has to examine the educational and technical conditions of society. Unless the society has a high educational level, then the idea that there is a 'choice' between hierarchy and empowering divisions of labour is likely to be an illusion. What could be done is what was attempted in China during the cultural revolution where cadres (managers and engineers) had to attend 'May 4th Cadre Schools' where they were 're-educated' by participation in manual labour. Whilst it was relatively easy to abase, for a while, a few at the top, educating the much larger base to do technically qualified work was much harder.

In recent years a new non-hierarchical model for intellectual work has developed in the open-source software movement. Here projects are voluntarily formed, and task allocation is voluntarily agreed. This non-hierarchical collective work becomes possible partly because software tools have been built to support such co-operative work, to track tasks and integrate work done by multiple people. Another factor is that it is work done by a relatively expert section within the overall workforce, a section with skills and time at its disposal. It is a subject of considerable debate on net forums as to how this same model can be generalised to the production of material goods.

Albert discusses distribution of income in considerable detail. He is vague as to what this income would be denominated in, whether it would be in money or in labour time accounts.

> Regarding income. four distributive norms summarize available options for how people should be compensated for economic activity:
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> • Norm 1: Remunerate according to the contribution of each person's physical and human assets.
>
> • Norm 2: Remunerate according to the contribution of each person's human assets only.
>
> • Norm 3: Remunerate according to each person's effort or personal sacrifice.
>
> • Norm 4: Remunerate according to each person's need
>
> (Parecon page 28)

> Market exchanges permit those with greater abilities to benefit more and exercise greater economic power than do those with lesser abilities. These inequities occur even with fully informed exchanges in perfectly competitive markets, much less in markets as we know them in real economies with advertising, unequal bargaining power, etc. (page 56)

By posing income as something that arises as compensation for economic activity, we feel that Albert concedes a bit too much to the viewpoint of bourgeois economics. Many incomes are not compensation for activity. The rent that the King of Saud receives from his oil wells can hardly be described as compensation for any activity on his part. The same applies to interest payments, dividends to shareholders, state pensions or welfare benefits.

Income and economic activity are two different things. It is only people who are employed, or self employed whose income is a compensation for economic activity. Because he looks at income only from the standpoint of economic activity he gives far less attention to the problem of exploitation than we do. We see the elimination of exploitation as a key goal of socialism and structure much of our arguments around this. We see the conflicting class interests between exploited workers and exploiting employers as being a key factor in creating socialist movements. Albert is obviously against exploitation too, but pays little attention to the problem of its elimination. Instead he discusses at great length income differentials between employees. The direction of his argument here is one we have considerable sympathy with. He too, wants to eliminate differences in pay based on the category of work that people do, so that the basic rate of pay should not vary with the training necessary to perform a task. He goes further than us in opposing any kind of piecework or payment by results. He reiterates, without quoting, Marx's argument in the Critique of the Gotha Progamme, that payment according to labour is still a right in inequality, since the stronger or faster worker will be able to perform more labour per hour.

We think that this is being too prescriptive. There are still many types of work where there is a sufficiently clear relationship between effort and final result to justify paying by results. In these circumstances payment by results will give broadly the same result as Albert's ideal of payment according to effort. It will often be impossible to determine whether the worker who completes a task at above average speed has done this by working harder, or because she has some innate ability. Where this can not be determined it would be both unjust and counter productive not to reward such differences productivity.

Overall we think his emphasis on leveling of incomes within individual trades and occupations is a political mistake. Until exploitation has been completely swept away the socialist movement needs the maximum unity of the exploited. Until that point is reached, Alberts emphasis on leveling within occupations could prove divisive.

Distribution, values and prices

When we first presented the arguments developed in this book, in an article in *Economy and Society*,[1] Gavan Duffy (1989) produced a response in the same journal. While we agree with some of Duffy's points, we think he has not fully understood our position, and perhaps we can sharpen the presentation of our ideas by considering some of his criticisms here. Two main points stand out.

[1] Cockshott and Cottrell (1989).

First, Duffy suggests that there is something ironic about our argument in this sense: while we make much of the potential of modern computing technology, we stop short of advocating a purely quantitative planning system, i.e. one which proceeds without using the intermediary of prices or values. Duffy seems to regard this as a kind of retreat from the positions of earlier socialist economists such as Lange, who saw computation as an alternative to markets of any kind.[2] Just as the technology required for the Lange-type model comes into view, Cockshott and Cottrell recommend a solution which relies on a market mechanism! Secondly, Duffy suggests that if one does think in terms of a socialist market in consumer goods, there is no good reason to use labour values as the benchmark of social cost: he argues that 'simple costs of production' would be preferable.

On the first point, we should stress that we are not proposing that all goods and services be distributed via a market. We recognise the existence of a 'social provision' sector (health, education, child care, etc.) where goods or services are provided as a basic right of citizenship (see chapter 5). Here the level and form of provision are not decided using market prices, but through democratic debate and politics. Nonetheless, we make no apology for advocating a market in many items of personal consumption.

The essential features of our consumer goods market are as follows.

(1) Consumers receive incomes designated in labour tokens, either for work performed or as transfers.

(2) Commodities have 'prices,' also designated in labour tokens, which may diverge somewhat from their actual labour content (also marked on the commodity) due to fluctuations in supply or demand.

(3) When consumers acquire goods through the market their balances of labour tokens are 'cancelled' correspondingly, so that their acquisitions are limited by their incomes (plus some allowance for consumer credit).

In effect, each consumer is presented with this proposition: you are entitled to such-and-such a definite allowance of social labour time commanded, which you are free to enjoy in any form you wish.

What would an alternative 'purely quantitative' system, with no prices or values, look like? The state must place an initial 'order' for consumer goods to be produced in such-and-such proportions, and then presumably consumers are free to acquire whatever they like from the stores ('to each according to his need', as Marx put it in his *Critique of the Gotha Programme*). If there are no prices, then 'incomes' have no meaning either, and there is no pre-set limit to the quantity of goods the individual may acquire. As the stocks of some goods fall, the state simply orders the production of more, while the production rate is slowed down for goods of which stocks are increasing.

All very well, but what is to stop the stocks of popular goods going straight to zero, and how can there be any guarantee that production can be sustained at a level sufficient to meet consumers' wishes, within the constraint posed by the available amount of social labour? Or in other words, if consumers can acquire anything they like at zero cost to themselves, will the total of such 'demands' not

[2] In his earlier writings, Lange proposed a variant of market socialism, but by the 1960s he came to the view that modern computers had made it possible to dispense with the market altogether. See Lange (1938) and Lange (1967) in the bibliography for details. We have discussed Lange's arguments at some length in Cottrell and Cockshott (1993a).

likely exceed the total feasible production of the society? And will the practical result, therefore, not simply be 'first come, first served'?

Two points might be urged against this critical view: communist 'abundance', and the responsible, public-spirited attitude of the socialist consumer. But 'abundance', in the sense of a sufficiency of all goods when they are priced at zero, does not seem at all credible to us. Even as technology continues to improve, the need to cope with environmental problems and resource depletion, coupled with the need greatly to improve the material condition of the majority of the world's population now living in poverty, would seem to rule out the abolition of economic scarcity. And even if socialist consumers are thoroughly public-spirited, the right attitude is simply not enough. Without some guidance from objectively calculated social costs, people cannot know what is a 'reasonable' or 'responsible' amount for them to consume.

If one accepts the need for some kind of socially determined limitation on individual consumers, to keep people's total consumption demands within the feasible production set, what is the alternative to the payment of definite incomes and the (non-zero) pricing of consumer goods? The state could decide on an allocation or 'ration' of consumer goods per head, order the production of these, and then distribute them directly to the people. But it is hard to see how such a system could be adequately responsive to changes in consumers' preferences over time, or to the varied preferences and priorities of different individuals, households or communes. If people are to exercise (constrained) individual choice over their consumption pattern, there is no alternative to some form of market. Free substitution within a constraint requires that the consumer's allocation of goods takes the form of a scalar (any goods you like up to such a total value)[3] rather than a vector (a list of quantities of goods, or ration). And the payment of incomes and non-zero pricing of goods is simply a means of imposing such a scalar constraint.

Accepting the need for a market in consumer goods does not, of course, mean one has to accept our particular version of how such a market should operate. This brings us to Duffy's second point, concerning the use of labour values as a representation of social cost.

We accept that straightforward labour values are open to criticism as a measure of social cost. We have already addressed two relevant points in chapter 5. First, the use of labour values as the sole means of calculation arguably leads to an under-valuation of finite natural resources which cannot simply be 'produced' by the application of labour time. Second, strict labour-value calculation neglects the issue of the time-profile of the application of social labour. Two products might require the same total labour hours for their production, but the phasing of this labour over calendar time might be different. If such differences are relevant, then again labour-value calculation must be seen as incomplete. Also in chapter 5, we sketched means of solving these problems.

We are puzzled, however, by Duffy's suggestion that 'simple costs of production' might be preferable to labour values as a means of economic calculation under socialism. As discussed in chapter 8, 'cost of production' in the normal capitalist sense is far from simple. It presupposes that enterprises exist as subjects of right—in effect, presupposes private property in the means of pro-

[3] More generally a scalar means a single number, in contrast to a vector which is a list of numbers. Thus 4.57 is a scalar quantity whereas [3.9, 1.2, 6.7] is a three element vector.

duction. In a socialist economy there is no 'simple', given cost of production; any candidate for a measure of social cost has to be socially defined and calculated. We have argued that labour time provides a rational basis for such calculation, even though it has to be supplemented in the ways indicated in chapter 5.

Market socialism?

As we have already said, we are well aware that our arguments run against the recent tide of right-wing pro-market opinion. We make no apology for this; we believe that the fashion is mistaken and will ultimately be seen as such. Of more concern to us, however, is the fact that many avowedly socialist writers have, over the 1980s, expressed serious doubts over the 'classic' socialist project of a planned economy, and have advocated instead various forms of 'market socialism'.[4] The voices raised against this trend have been rather few.[5]

In this section we consider some of the market socialist views; we shall argue that market socialism is seriously inadequate as a goal of socialist politics. We agree with Devine (1988) that market socialism reflects not a bold new conception on the part of socialist theorists, but a damaging accommodation to the dominance of the right. Whereas Gramsci called for 'pessimism of the intellect, optimism of the will' (i.e. hard-headed realism combined with a passionate commitment to socialist objectives) the market socialism of the 1980s betrays a 'pessimism of the will', a debilitating loss of confidence in the ability of socialism to offer any really distinctive long-term political project.

We obviously cannot offer detailed comments on all the market socialist arguments that have been put forward lately. For our purposes here, we focus on one recent contribution in the West, that of Diane Elson, and one from the East, that of Abel Agabegyan.

Diane Elson: the socialised market?

Diane Elson (1988) has argued that a 'socialised market' provides a third alternative between planning and the free market. We believe that her proposal for a socialised market concedes far too much to bourgeois economics. It appears to involve an uncritical acceptance of Alec Nove's claim that efficient central planning is impossible—a claim we have been at pains to rebut in previous chapters. Specifically we argue:

(1) that by shifting her attention from the production to the exchange process Elson effaces the main point of the Marxist critique of capitalism;

(2) that her socialised market system would retain most of the social and production relations of capitalism, and would be more accurately described as state capitalism rather than socialism; and

(3) that it would be susceptible to all the characteristic instabilities of capitalism.

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[4] See, for instance, Alec Nove (1983), Geoff Hodgson (1984), Diane Elson, (1988), Abel Aganbegyan (1988), David Miller (1989).

[5] Defences of planning have been offered by Ernest Mandel (1986), and Nicholas Costello *et al.* (1989), although the kind of planning advocated by the latter—in the tradition of the Benn/Holland current on the Labour left—falls short of our own proposals.

A large part of Elson's article is devoted to showing that real capitalist markets are far removed from the ideal markets assumed by most advocates of market socialism. She argues that they involve real costs in terms of resources to function, that they are rarely freely competitive, that consumer sovereignty is not really effective, that Say's law does not operate, etc. She makes reference to an extensive recent literature to reinforce her point. This sort of criticism, though it is of value in pointing out the lack of realism in the formulations of the outright pro-marketeers, seems to fill in for an absent concept. The concept of exploitation is missing from the critiques of capitalist markets to which she refers. Socialism as a political movement did not arise because consumers were dissatisfied with the way the market was organised. It arose because capitalism is an exploitative system whose victims sought redress. Capitalism allows the wealthy to exploit the labour of the poor. Socialism was the response to exploitation of wage labourers by capitalists.

We have made reference to the classical Marxist conception of exploitation throughout this book. In the present context, the important point is that one of Marx's central concerns was to refute the idea that exploitation arises from imperfections in the operation of the market. Instead, he argued, it arose from the very logic of commodity production. In order to demonstrate this theoretically, he made the 'generous' assumption that commodities exchange in proportion to their labour values. This was the ideal put forward by the most advanced bourgeois economist, David Ricardo. Marx was well aware that a whole series of complicating factors—different capital intensities, partial monopolies and so on—would prevent prices in a real capitalist economy being proportional to labour values. He nonetheless assumes this proportionality in Volume 1 of *Capital*. He assumes that in every sale or purchase of a commodity, equivalents are exchanged. The currency is based on gold, and in each sale or purchase the amount of labour embodied in the gold is equal to that in the commodity being purchased. In other words, he assumes no cheating in the exchange process. He knew that all this was counterfactual—that workers were routinely sold adulterated products, cheated through the truck system or extra deductions from their wages. But for the sake of argument he says: Let us grant the market to be completely fair, I will show that it still leads to the exploitation of the working class.

The key to exploitation, Marx argued, was the special character of labour power. Labour power is unique in that its utility to a capitalist is its ability to create value. Labour power is assumed, like every other commodity, to sell for its cost of reproduction. In many cases, of course, labour power will sell for less than its cost of reproduction, for instance where workers are part-time farmers and don't buy all their food on the market. But even if it does sell for its full cost of reproduction, exploitation still takes place. The working day is prolonged to produce absolute surplus value. Technology cheapens the means of subsistence and produces relative surplus value.

The political point of this argument was to rebut those who argued that fair trading, the abolition of monopoly, and a just level of wages would bring the salvation of the proletariat. Marx argued to the contrary that only the abolition of the wages system itself would end exploitation. No reform of the market could possibly remove the antagonisms at the heart of capitalism. But a reform of prices is just what Elson proposes.

Elson proposes a variety of publicly funded institutions that would set price norms. These institutions would have available to them detailed information about the cost of production of different products. On the basis of cost, plus some markup, they would set price norms for each commodity. (It is not made clear what the basis of the markup would be: Would it be proportional to the capital employed or to the recurrent costs?) The setting of these price norms, which are apparently not intended to be binding, together with the publication of the data on which they are based, is termed the socialisation of the market.

The term 'socialised market' is rather misleading since markets have always been social institutions. They are the typical way in which private individuals enter into social relations in the capitalist epoch. When the word social is combined with the word market—the social market economy, socialised market, market socialism—we should be on our guard. Given that exploitation would exist even under the very generous assumptions made by Marx, the socialised market would also allow it. The socialised price norms are to be merely indicative, not binding on buyers and sellers: "Price and Wage Commissions can generate price and wage norms, and can supply the information to enable buyers and sellers to 'police' prices and wages in a decentralised way" (Elson, 1988, p. 33). If the norms are not accepted by the market, then it is the norms, not the market prices, that are altered. The main difference between the socialised market and a normal one seems to be that in the former the taxpayer subsidises some costs of marketing that would normally be borne by the buyers and sellers. We can conclude that although this market might adjust more smoothly than an unsubsidised one, its effects would not be very different.

If we look at the crucial issue of the buying and selling of labour power, Elson's proposal looks suspiciously like the sorts of prices and incomes policies that were used to regularise exploitation in the 1960s and 1970s. The Wages and Prices commission is to produce norms for all wage rates. This clearly is not abolishing the wages system; it is a means of regularising it. The hierarchy of wage rates previously enforced by private economic contracts, now becomes a matter of public policy, to be legitimised by a state organ. At the same time the Price and Wage Commission will doubtless be mindful of the need to ensure industrial profitability. Here we come onto contentious ground, since the setting of wage rates affects the rate of exploitation. Any attempt to set higher wage norms will be resisted by employers, any attempt to set lower ones by the unions. If the wage norms are binding, actual wage rates will be determined by the relative strengths of employers and unions in the traditional way: strikes, lockouts, etc.

There is one measure that Elson proposes which could significantly alter the rate of exploitation. This is the idea that all citizens should be assured a basic minimum income whether they are employed or not. This policy is advocated by the Greens, and under capitalist conditions it is undoubtedly in the working-class interest. If workers on strike know that their families will always be able to eat, their position is strengthened, and strikes will be more solid and successful. But we should not overestimate the impact of this sort of unconditional social security benefit. Diane Elson indicates that she views it as very much a bare subsistence minimum, enough to provide a diet of lentils, a few pairs of cheap jeans and some coconut matting on the floor. It does not sound much better than living on contemporary social security benefits. It would be driven by the same contradictory factors as all social security schemes: it must keep people alive but not undermine their incentive to work, nor impose a heavy tax burden. People often have other commitments that they have entered into whilst working: mortgages, hire purchase, etc. Social security benefits can quickly be eaten up by these when people go on strike or become unemployed.

Unconditional social security benefits are a worthwhile reform in a capitalist country. They would help reduce poverty and would aid the class struggle. What they will not do is "remove the basic cause of antagonism between buyers and sellers of labour power" (*ibid.*, p. 30). The buying and selling of labour power is the prelude to exploitation and is inherently antagonistic. For the enterprises that purchase the labour power will still be juridical subjects whose objective is to use the labour power to make a profit. They will be legal personalities with the right to buy, sell and enter into contracts. In short they will be what Marx termed 'personifications of capital'. They might be owned by the state and have to pay interest to the state on capital advanced, but that would no more remove their capitalist character than did state ownership of British Leyland. Indeed, Elson proposes a auditor called the Regulator of Public Enterprises whose function is to ensure that the state obtains an adequate rate of return on its capital.

Where labour power continues to be bought and sold on the market there is bound to be a struggle over its price. In a capitalist economy unemployment is the ultimate regulator of wages. Under conditions of full employment the economic class struggle leads to wage inflation. It may be possible to regulate this to some extent by binding prices and incomes policies, but the purely voluntary mechanism which she describes is likely to be unstable. Either it will lead to inflation, with consequent pressure for a return to unemployment to discipline the workforce, or there will be demands for mandatory price controls. Society will be faced with the alternative of capitalist or socialist paths of development.

This is exactly the alternative that is posed with absolute clarity in countries like Poland or Hungary or Russia at the time of writing (1992). Either the economy reverts to the whip of unemployment, without which there can be no true labour market, or moves in a communist direction and establishes direct social regulation of production and income. This is not to deny that the sort of total state capitalism proposed by Elson would be progressive in a British context. One can see it as the asymptote towards which British social democracy tended in the pre-Thatcher period: almost total nationalisation, voluntary prices and incomes policies, comprehensive rights to social security benefits. As such it would be far more in the working-class interest than the present dispensation.

But we know from experience that the state capitalist type of social order is unstable. It retains the money, markets, and bourgeois income differentials of capitalism whilst removing the unemployment needed to make these effective, and at the same time weakening the state as an element of bourgeois class discipline. It is a transitional form of society which must either revert to private capitalism, as in Britain, or go in a socialist direction. The same holds good in the converse direction. But the move away from a planned socialist economy towards a state capitalist or market socialist one is unequivocally reactionary. The resulting form can only be an unstable one that will gravitate through class struggle into capitalism or else back towards communism.[6]

[6] N. Scott Arnold (1987) presents an interesting argument along these lines, showing that market socialism is an inherently unstable socio-economic form.

The irony is that Elson's socialised price-fixing agencies would have the computer networks and the information about production needed to make an effective transition towards planning. If she were advocating such agencies as a transitional measure leading up to a planned economy they might be justifiable. But in the current world situation, where capitalism is on the offensive, transitions towards capitalism seem more likely. Proposals for a third way between capitalism and communism will be just transient staging posts on the journey to full capitalist restoration.

All market economies are subject to macroeconomic instabilities. The two main forms that they take are recessions in which products cannot be sold, creating unemployment, or excess demand creating inflation. In those socialist countries that are reverting to the market, we see both of these: roaring inflation combined with millions being thrown out of work. Elson, like any intelligent left-wing economist, is clearly aware of these propensities of market economies; but she offers no real solution. Whatever one might say against the economic system that used to operate in the USSR before Gorbachev, prices were stable and there were no recessions. The Soviet system was not without problems, only the wilfully blind could think that. But any changes to the socialist system as it has been known this century should be a step forward for the working people. What Elson and similar thinkers in Russia are advocating is a retreat from Marx towards the doctrines of Adam Smith.

Aganbegyan: administrative and economic methods

The arguments developed here and in previous chapters also give us a basis for criticising the conception of Soviet economic reform put forward by Abel Aganbegyan, one of Gorbachev's key economic advisors in the mid- to late-1980s. In his book on perestroika, Aganbegyan (1988) made repeated reference to the distinction between 'administrative' and 'economic' methods, and emphasised the need to curtail the former and develop the latter. He stated that "a chief characteristic of the existing system of management is the predominance of administrative methods, with economic methods having only secondary significance" (1988, p. 20), and went on to claim that the essence of perestroika "lies in the transition from administrative to economic methods of management" (p. 23).

If this simply meant that he is opposed to arbitrary bureaucratic directives ('administrative'), and in favour of the careful calculation of costs and benefits ('economic'), the point would be uncontroversial. But in fact there appears to be a slide between this conception and a much more contentious interpretation. First, Aganbegyan appears to identify 'administrative' methods with central planning as such. Commenting on the central planning of the Stalin period, he stated that "from the beginning of the 1930s economic methods of management were curtailed. Trade between production units was replaced by centralised allocation of resources and the market contracted" (*ibid.*, pp. 21–22). Here 'economic methods' are counterposed against 'centralised allocation' as such. Matters become clearer when he spells out the content of the economic methods: these involve the transfer of associations and enterprises to full economic accountability, self-financing and self-management, as well as a greatly increased role for prices, finance and credit (p. 23). Elsewhere he associates economic methods with the stimulation of market relations and an increased role for profit (p. 58). Finally he proposes that the state plan be 'scrapped' in favour of a system in which "...enterprises and associations will work out and approve their own plans. They will not be subject to the approval of any higher authority and there will be absolutely no allocation of planned work" (1988, p. 112).

Despite his positive comments on the role of the first 5-year plans in promoting Soviet industrialisation, Aganbegyan effectively identifies central planning with 'administrative methods' (out-of-date, arbitrary, bureaucratic, inefficient), while associating 'economic methods' (modern, efficient, progressive) with reliance on market prices, profitability, financial independence for enterprises and the complete abolition of central directives. It may well be that in the Soviet experience central planning has been associated with bureaucratic arbitrariness, but it is a serious mistake to identify the two. We have shown that central planning decisions need not be arbitrary, but can be made on the basis of a well-defined calculus of social cost. Indeed, we have been at pains to show that the social rationality of labour-time accounting is superior to that of the market. And there is no necessary association between the use of market-clearing prices for consumer goods (which we advocate as one component of the overall planning system) and the dissolution of socialist property via the granting of unbounded autonomy to enterprises. It is one thing to say that enterprises should be free to appoint their own managers, organise their own work democratically, and propose initiatives for new products—but quite another to argue that they should act as independent agents, drawing up their own plans in response to market signals. Indeed, if they are granted the latter role, then democratic control within the enterprise is likely to be one of the first things to go. A discussion such as Aganbegyan's, which loads the question by implicitly identifying economic rationality and market processes, must provide a misleading guide to the economic reform of socialism.

Over the last few years we have seen where this logic leads: the collapse of all effective economic planning, run-away inflation, general economic dislocation, mass unemployment and the eventual triumph of capitalist restoration. 'Reform' of socialism towards the market has been an unprecedented economic disaster for the working class in the countries affected. On a global scale, it has re-established the domination of the same few capitalist powers that ruled the world prior to 1917. At the political level it has led to a situation in which the socialist movement and the organised working class have effectively been excluded from the stage.

With socialism gone, what hope is there left for the dispossessed but fascism and nationalism? Nothing, unless it is a socialism that is more radical, more democratic and more egalitarian than any which went before, that is founded on clear economic and moral principles and that does not surrender its integrity to the demoralizing myths of the market.

Chapter 16

The socialist calculation debate

Mises on the impossibility of socialist calculation

In 1920, with the Bolsheviks victorious in the Russian civil war and the spectre of communism once more haunting Europe, von Mises produced his classic article on 'Economic Calculation in the Socialist Commonwealth'von Mises (1935). His claims were striking, and, if they could be sustained, apparently devastating to the cause of socialism. The dominant Marxian conception of socialism involved the abolition of private property in the means of production and the abolition of money, but Mises argued that "every step that takes us away from private ownership of the means of production and the use of money also takes us away from rational economics" (von Mises (1935): 104). The planned economy of Marx and Engels would inevitably find itself "groping in the dark", producing "the absurd output of a senseless apparatus" (106). Marxists had counterposed rational planning to the alleged 'anarchy' of the market, but according to Mises such claims were wholly baseless; rather, the abolition of market relations would destroy the only adequate basis for economic calculation, namely market prices. However well-meaning the socialist planners might be, they would simply lack any basis for taking sensible economic decisions: socialism was nothing other than the "abolition of rational economy".

How did Mises arrive at this conclusion? His argument involves (a) a statement of what economic rationality is all about, and (b) a supposedly exhaustive listing of possible means of rational economic decision-making; his task is then to show that none of these means can be implemented under socialism.

Rationality and optimality

As regards the nature of economic rationality, it is clear that Mises has in mind the problem of producing the maximum possible useful effect (satisfaction of wants) on the basis of a given set of economic resources. Alternatively, the problem may be stated in terms of its dual: how to choose the most efficient method of production in order to minimize the cost of producing a given useful effect. Mises repeatedly returns to the latter formulation in his critique of socialism, with the examples of building a railway or building a house:[1] how can the socialist planners calculate the least-cost method of achieving these

[1] The railway example is in von Mises (1935). The house-building example is in Human Action von Mises (1949). It should be noted that the discussions of socialist calculation in both Human Action and Socialism von Mises (1951) are essentially the same as in Mises (1935), with much of the material being repeated more or less verbatim in all the texts.

objects? We can accept this formulation of the problem for present purposes, while noting that it is inescapably imprecise. What exactly is meant by the maximization of useful effect? Useful effect for whom, as defined by whom? The dual formulation does not escape this problem, since, if one is not to beg the question, the 'cost' that is to be minimized must be defined theoretically in terms of useful effect or want-satisfaction foregone.

If one wishes to argue that a given type of economic system, say S_1, solves *this general problem* more effectively than some other, S_2, then strictly speaking one is obliged to show that for S_1 there exists an attractor that is closer to the 'true optimum' than any corresponding attractor for S_2. One is therefore faced with the problem of producing a definition of the 'true optimum', and if this is to be defined in terms of maximal satisfaction of wants, one presumably has to construct some kind of social welfare or utility function, a notoriously difficult if not chimerical task, and one that Mises does not attempt. On the other hand, if one dismisses as unreal the notion of a 'true optimum'—an ultimate independent standard by which the results of certain concrete systems may be judged—then one must find a different basis for arguing in favour of one system over others. We find that Mises wavers on this point: he wants to argue that capitalism does get closer to optimality, while holding at arm's length the type of formal static general equilibrium theory which might be thought to support such a claim. We return to this point in section 16.

As regards the means for rational decision-making, Mises identifies three possible candidates: planning in kind (*in natura*), planning with the aid of an 'objectively recognizable unit of value' independent of market prices and money, such as labour time, and economic calculation based on market prices. Let us deal with these three possibilities in turn.

Planning in kind

The problem, let us grant for the present, is deciding how to deploy given resources so as to maximize the resulting useful effect. This involves some kind of 'judgment of value' (i.e. assessment of useful effect). In the case of final consumer goods (in Mises terminology, 'goods of a lower order') this is quite straightforward, and requires no real calculation as such: "As a rule, the man who knows his own mind is in a position to value goods of a lower order" (von Mises (1935): 96). And in very simple economic systems, this immediate valuation may be extended to the means of production:

> It would not be difficult for a farmer in economic isolation to come by a distinction between the expansion of pasture—farming and the development of activity in the hunting field. In such a case the processes of production involved are relatively short and the expense and income entailed can be easily gauged (von Mises (1935): 96).

Or again:

> Within the narrow confines of household economy, for instance, where the father can supervise the entire economic management, it is possible to determine the significance of changes in the processes of production, without such aids to the mind [as monetary calculation], and yet with more or less of accuracy (von Mises (1935): 102).

In these cases we may speak of planning in kind, without the intermediary of some accounting-unit such as money (or labour time). The point is that 'apples and oranges' *can* be compared at the level of subjective use-value, and in cases where the connection between the allocation of means of production and the production of specific use-values is readily apparent, this may be sufficient for achieving efficiency.

The limits of such planning in kind are set by the degree of complexity of the production processes. At some point, it becomes impossible to achieve a synoptic appreciation of the relevant interconnections; beyond this point, rationality in the allocation of resources requires the use of some objective 'unit' in which costs and benefits may be expressed. Interestingly from our point of view, the impossibility of planning in kind for complex systems is explicitly argued in terms of the capabilities of the human mind:

> [T]he *mind of one man alone*—be it never so cunning, is too weak to grasp the importance of any single one among the countlessly many goods of a higher order. *No single man* can ever master all the possibilities of production, innumerable as they are, as to be in a position to make straightway evident judgments of value without the aid of some system of computation (von Mises (1935):: 102, emphasis added).

So might the employment of means other than human minds might make possible planning in kind for complex systems? The main pro-planning argument in this paper involves the use of labour time as a unit of account (and hence does not fall in the category of pure planning in kind), but nonetheless we wish to suggest that certain advances in artificial intelligence, in particular recent work on neural nets, may be relevant to this question.[2]

Mises is in effect arguing that optimization in complex systems necessarily involves arithmetic, in the form of the explicit maximization of a scalar objective function (profit under capitalism being the paradigmatic case). But arithmetical calculation can be seen as a particular instance of the more general phenomenon of computation or simulation. What a control system requires is the ability to compute, whether the control system in question be a set of firms operating in a market, a planning agency, an autopilot on an aircraft or a butterfly's nervous system; it is by no means necessary for the computation to proceed by arithmetical means. The important point is that the control system is able to model significant aspects of the system being controlled. Firms do this by means of stock control and accountancy, in which marks on paper model the location and movement of commodities. In preparing these marks the rules of arithmetic are followed; the applicability of arithmetic to the problem relies upon number theory being a model for the properties of commodities.

On the other hand, consider an example of a neural control system. A butterfly in flight has to control its thoracic muscles to direct its movement towards objects, fruit or flowers, that are likely to provide it with sources of energy. In so doing, it has to compute which of many possible wing movements are likely to bring it nearer to nectar. Different sequences of muscle movements have different costs in terms of energy consumption and bring different benefits in terms of nectar. The butterfly's nervous system has the task of optimizing with respect to these costs and benefits, using non-arithmetical methods of computation.

[2]Recent results in the theory of neural nets, also known as parallel distributed processing, are presented in Rumelhart *et al.* (1986). A useful summary of the issues involved is given by Narayanan (1990). Donald Hebbs (1949) is commonly credited with the origination of this line of thought, but it could not be practically implemented at that time.

The continued survival of the species is testimony to its computational proficiency. It appears that neural networks are capable of producing optimal (or at least highly efficient) behavior, even when faced with exceedingly complex constraints, *without* reducing the problem to the maximization (or minimization) of a scalar.

A planning agency is likely to make widespread use of arithmetic and indeed, if one wants to make localized decisions on the optimal use of resources by arithmetic means, then Mises' argument about the need to convert different products into some common denominator for purposes of calculation is quite correct. If, however, one wishes to perform global optimizations on the whole economy, other computational techniques, having much in common with the way nervous systems are thought to work, may be more appropriate, and these can in principle be performed without resort to arithmetic.

Of course it would be anachronistic to fault Mises for failing to take into account developments in computer science which took place long after he wrote. He and Hayek were doubtless correct to argue that the proposals for planning in kind offered in 1919 by the likes of Neurath and Bauer, on the basis of the experience of the war, were highly problematic in peacetime conditions.[3] But it is fair comment on contemporary critics of socialism, that they should not repeat uncritically pronouncements on planning in kind made prior to the scientific understanding of the nature of computation.[4]

Use of labour values

Having rejected the possibility of planning in kind, Mises considers the possibility that the socialist planners might be able to make use of an 'objectively recognizable unit of value', i.e. some measurable property of goods, in performing their economic calculations. The only candidate Mises can see for such a unit is labour content, as in the theories of value of Ricardo and Marx.[5] Mises ends up rejecting labour as a value unit; he has two relevant arguments, each purporting to show that labour content cannot provide an adequate measure of the cost of production. These arguments concern the neglect of natural resource costs implicit in the use of labour values, and the inhomogeneity of labour. We shall deal with these two points here, leaving other arguments concerning the adequacy of labour values to section **??**. First, though, it is worth making the general point that Mises' critique of labour values is very brief and sketchy. Two pages or so of substantive argument appear in Mises (1935) and are reproduced in Mises (1951). In *Human Action* (Mises, 1949) the topic is dismissed in two

[3]See Hayek (1935: 30–31). Mises mentions Neurath on p. 108 of the same work. They refer to books by Neurath and Bauer (*Durch die Kriegswirtschaft zur Naturalwirtschaft* and *Der Weg zum Sozialismus* respectively, both published in 1919) which do not appear to be available in translation.

[4]Cockshott (1990) presents a specific proposal for the balancing of an economic plan in the presence of constraints in the form of stocks of specific means of production, drawing on the idea of 'simulated annealing' from the neural net literature. His proposal does in fact involve the use of arithmetic—essentially the minimization of a loss function in relation to a desired vector of final outputs—but it points the way to application of artificial intelligence techniques to the task of economic planning.

[5]From a modern, formal-mathematical point of view the singling out of labour for such a role may seem arbitrary. Wouldn't any basic commodity, which enters either directly or indirectly into the production of all others, do just as well as the value basis? Farjoun and Machover (1983) provide a trenchant discussion of this point, and an effective defence of the choice of labour as basis.

sentences. This doubtless reflects the fact that although Marx and Engels had laid great stress on planning as an allocation of labour time, this conception had been more or less abandoned by Western socialists by the time Mises was writing. We return to this point below.

The neglect of natural resource cost

Mises accepts that the Marxian concept of labour value does, in one sense, make allowance for the consumption of natural resources:

> On a first impression calculation in terms of labour also takes into consideration the natural non-human conditions of production. The law of diminishing returns is already allowed for in the concept of socially necessary average labour-time to the extent that its operation is due to the variety of the natural conditions of production. If the demand for a commodity increases and worse natural resources must be exploited, then the average socially necessary labour-time required for the production of a unit increases too (Mises, 1935: 113).

But he immediately argues that this is not enough. It is not rational that the 'material factors of production' should enter the calculation *only* insofar as they cost labour time to extract from nature. Mises gives an example of two commodities, P and Q, each of which requires a total of 10 hours of labour to produce. Both goods require some raw material, a, in their production, and a in turn requires one hour of labour per unit produced. Commodity P is produced with 8 hours of direct labour and two units of material a, while Q requires 9 hours direct labour and only one unit of a. In terms of labour calculation, the two commodities 'cost' the same, but Mises asserts that P must truly be more valuable than Q on account of the fact that it embodies more of the natural raw material.

At first sight this might appear a *non sequitur* (what if the material a is effectively inexhaustible?), but it becomes apparent in the conclusion to Mises' argument that he is talking of a material that is "only present in such quantities that it becomes an object of economizing" (1935: 114), i.e. a *non-reproducible* resource. Lavoie (1985: 69–70) emphasizes the point, arguing that "there is no direct way [labour-time] calculation can cope with non-reproducible natural conditions of production." Socialist planners "presumably would have to develop some kind of proxy for the value of nonreproducible resources in units of labour hours. It is difficult to imagine how this could be done in a way that would not be completely arbitrary."

We do not wish to deny there is a problem here. We do, however, find it rather remarkable that Mises (and his expositor, Lavoie) should talk as if the problem solves itself under capitalism. Neither offers any criticism of the classic Ricardian theory, according to which the market price system also fails to take into account non-reproducible resources. For Ricardo, natural resource constraints manifest themselves in the price system via rising marginal cost of production, i.e. just the effect which Mises takes to be inadequate. For the intra-marginal output, price is indeed above labour value, but at the margin rent is zero and the exploitation of natural resources comes free. (There is a difference here: if labour value is defined as *average* socially necessary labour time, then the labour-value calculation will 'undervalue' certain products relative to Ricardian prices, but this could be overcome by evaluating the relevant products at their marginal labour content.)

In fact, matters are not infrequently worse under capitalism. The fact that a certain resource is ultimately exhaustible does not necessarily mean that it is subject to diminishing returns in the short run. In the westward expansion of American agriculture, for instance, the (geographically) marginal land was actually the most productive. In such cases the market provides no incentive whatever for resource conservation; the results were painfully evident in the Dust Bowl of the 1930s. We are not claiming that labour-time calculation would necessarily do better in cases where the market fails to conserve resources. We do contend, however, that socialist planners should be able to take more far-sighted decisions on resource conservation than profit-maximizing firms.[6] We cannot argue this point at length here; two observations will have to suffice.[7]

First, the planning authority could make it a principle that whenever it employs technologies that consume non-reproducible resources, it invests in research into the production of substitutes. The amount of such investment that should be undertaken cannot be decided by any simple algorithm (in market or planned systems), but once a decision is reached, the cost of the research could be 'charged' to the resource-consuming industries (i.e. the planners would pro-rate the labour time required in this endeavour across the products of these industries). Here is a non-arbitrary way of bringing resource considerations into the domain of labour-time accounting. But second, we should emphasize that we do not regard labour-time calculation as providing a mechanical decision procedure for all planning questions. A socialist society might open up democratic debate on specific technologies or projects with substantial environmental impacts, and might allow environmental considerations to override 'efficiency' measured in terms of labour-minimization. We have no problem with the idea that environmental considerations and labour-time accounting are not necessarily reducible to a scalar common denominator, and that the balancing of these considerations may require political judgment on which opinions can differ. Mises, to his credit, is also quite willing to admit that important environmental issues cannot be brought within the ambit of *monetary* calculation either—witness his discussion of the decision whether to build a waterworks which might destroy the natural beauty of a waterfall, which is designed to illustrate the general point that money "can never obtain as a measure of those value-determining elements which stand outside the domain of exchange transactions" (1935: 98–99). Whether the conservation of Mises' waterfall can better be trusted to a private landowner, voluntarily eschewing the maximization of profit, or to a National Parks Board, is a matter of judgment: we incline to the latter.

[6] It has recently become clear that the socialist regimes of Eastern Europe have a dismal record of environmental destruction, comparable to that of nineteenth century capitalism. It appears to us, however, that this had more to do with a lack of democratic accountability, and an historically specific emphasis on the rapid development of heavy industries at any cost, than with the nature of socialist calculation as such.

[7] The relationship between labour-time accounting and environmental/resource considerations is treated more fully in Cockshott and Cottrell (in press).

The inhomogeneity of labour

In Mises' words, "the second defect in calculation in terms of labour is the ignoring of the different qualities of labour" (1935: 114). Mises notes Marx's claim that skilled labour counts as a multiple of, and hence may be reduced to, 'simple labour', but argues that there is no way to effect this reduction short of the comparison of the products of different labours in the process of market exchange. As he poses the problem:

> What must be conclusive in deciding the question whether reckoning in terms of labour is applicable or not, is whether it is or is not possible to bring different kinds of labour under a common denominator without the mediation of the economic subject's valuation of their products (*ibid.*).

Mises maintains that this is not possible. Wage differentials might appear to offer a solution, but the equalizing process in this case "is a result of market transactions and not its antecedent." Mises assumes that the socialist society will operate an egalitarian incomes policy, so that market-determined wage rates will not be available as a guide to calculation. The conclusion is then that "calculation in terms of labour would have to set up an arbitrary proportion for the substitution of complex by simple labour, which excludes its employment for purposes of economic administration" (1935: 115).

True, labour is not homogeneous, but there is no warrant for the claim that the reduction factor for complex labour has to be arbitrary under socialism. Skilled labour may be treated in the same way that Marx treats the means of production in *Capital*, namely as a produced input which 'transfers' embodied labour to its product over time. Given the labour time required to *produce* skills and a depreciation horizon for those skills, one may calculate an implied 'rate of transfer' of the labour time embodied in the skills. If we call this rate, for skill i, r_i, then labour of this type should be counted as a multiple $(1 + r_i)$ of simple labour, for the purpose of 'costing' its products. Of course the labour input required for the production of skills is likely to be a mixture of skilled and simple, which complicates the calculation of the skill multipliers. An iterative procedure is needed: first calculate the transfer rates as if all inputs were simple labour, then use those first-round transfer rates to re-evaluate the skilled labour inputs, on this basis recompute the transfer rates, and so on, until convergence is reached.[8]

Aside from the issue of skills which require labour for their production, we also recognize that not all workers of a given skill level accomplish the same work in an hour. In cases where it is possible to assess individual productivity with some degree of accuracy, labour of a given skill level might be graded into different productivity categories (say, above-average, average and below-average) and appropriate multipliers could be determined empirically for these grades. Workers might, for instance, be evaluated periodically (by themselves and their peers) and assigned a productivity grade. Unlike the case of skilled versus simple labour, the multipliers in this case might reasonably be used for determining differential rates of pay. Not every worker need be a *stakhanovite*; one might choose an easier pace of work while accepting a somewhat lower rate of pay.

[8] This procedure is discussed at greater length in Cockshott and Cottrell (in press).

To conclude this section, we find that Mises' two specific objections to the use of labour-time accounting are less than compelling. We should also note the marked asymmetry in Mises' treatments of market prices and labour-time calculation. When discussing market prices, he is quite willing to concede that "monetary calculation has its inconveniences and serious defects"—he even discusses some of these at length—yet he concludes that "for the practical purposes of life", such calculation "always suffices" (1935: 109). When discussing labour-time calculation, he draws attention to two defects, but instead of concluding that such calculation is then only approximately valid, or that there is a need for further thought on how the issues he raises might be dealt with in the context of labour-time accounting, he takes these defects as grounds for complete dismissal of the idea, and claims that the socialists therefore have no means of economic calculation whatever.

Use of market prices

In his discussion of market prices, Mises is concerned to establish two points: the adequacy of market prices as a means of rational calculation under capitalism, and their necessary unavailability under socialism. We shall take these points in turn.

It is clear that market prices *do* provide a basis for calculation under capitalism. By reference to prices, firms are able to decide on cost-minimizing technologies, and to decide between producing different products on the basis of their profitability. And we don't feel any need to dispute Mises' claim that the price system provides for a reasonably effective coordination of economic activities. Indeed, this was explicitly recognized, even emphasized, by Marx and Engels as we shall see in section **??** below; despite their critique of the 'anarchy' of the market, they saw the price mechanism as leading to an (imperfect, but better than arbitrary) adjustment of the supplies of commodities in line with demand, while enforcing convergence on production methods which require no more than the socially necessary labour time. Neither would we care to assert that the minimization of monetary cost of production or the maximization of profit have *nothing* to do with achieving efficiency in the satisfaction of human wants. But the two criteria are much less closely identified that Mises allows. Consider the following passage:

> Anyone who wishes to make calculations in regard to a complicated process of production will immediately notice whether he has worked more economically than others or not; if he finds, from reference to the exchange values obtaining in the market, that he will not be able to produce profitably, this shows that others understand how to make a better use of the higher-order goods in question (Mises, 1935: 97–8).

The person Mises refers to may 'immediately notice' whether he has worked more *profitably* than others or not, but the implicit assertion of identity between what is most profitable and what is most 'economical,' or simply 'better,' is unjustified.[9] Certainly, capitalists cannot make profits by producing something nobody wants, or producing with gratuitous technical inefficiency, but

[9]This assertion is made quite explicitly in Socialism: "To direct production towards profit simply means to direct it to satisfy other people's demand. . . Between production for profit and production for needs there is no contrast" (Mises, 1951: 143).

that is not enough to sustain Mises' claim. Is it not possible to reduce monetary cost of production by recklessly exploiting natural resources, cheap for the time being, yet ultimately exhaustible? If the production of luxury cars proves more profitable than simple housing, does that show that the cars represent a better use of resources? The list of questions could go on...

One point that socialists have typically urged, as undercutting the alleged identity of the pursuit of profit and the satisfaction of needs, concerns the inequality of incomes under capitalism. Mises' response to this argument is interesting; he claims that the very notion of a 'distribution of income' under capitalism is misleading, on the grounds that "incomes emerge as a result of market transactions which are indissolubly linked up with production" (1951: 151).[10] There is no question of 'first' producing output and then 'distributing' it. Only under socialism could we speak of a 'distribution of incomes', decided politically as a separate matter from the production plan. But to adopt Mises' position—that the allocation of purchasing-power under capitalism is an endogenous element in the productive system—is to admit that the production of commodities for profit is *not* governed by the 'maximal satisfaction of human wants', unless one tries to argue that human wants themselves are generated in miraculous correlation with money incomes.

It is not our intention here to produce yet another critique of capitalism, of which there are enough and more in the socialist literature. We merely wish to point out that Mises cannot have it both ways. If he is offering the realistic, hard-headed, dynamic defence of capitalism that Lavoie detects and applauds, he cannot smuggle in the claim that profit-maximization equals maximization of the satisfaction of human needs. If this claim were sustainable—which we of course dispute—it could only be by reference to the full apparatus of general equilibrium theory plus social welfare function, an apparatus which Mises advisedly avoids. Rather, Mises will have to be satisfied with the claim that capitalism 'works quite well' in certain ways, to which socialists can of course respond that it works rather badly in other ways.

We then come to the unavailability of prices as a means of economic calculation under socialism. Mises accepts that there may be markets, and hence market prices, for consumer goods in a socialist economy, but the problem comes with the means of production. "Production-goods in a socialist commonwealth are exclusively communal; they are an inalienable property of the community, and thus *res extra commercium*," writes Mises (1935: 91). And "because no production-good will ever become the object of exchange, it will be impossible to determine its monetary value" (92). For Mises, meaningful prices are necessarily the outcome of genuine market transactions between independent property-owners. The key feature of price or exchange-value is that it "arises out of the interplay of the subjective valuations of all who take part in exchange" (97); only by virtue of this fact does exchange-value "furnish a control over the appropriate employment of goods" (*ibid.*). We tend to agree with Mises on this. There may be other means of 'controlling the appropriate employment of goods,' but we accept his concept of *price* as the terms on which property-owners are willing to part with or acquire commodities. Lange, however, believed that

[10] This is not dissimilar to Marx's view that the distribution of income is governed by the mode of production (specifically the distribution of the means of production—see for instance Marx, 1974: 348). In both cases, the argument gives rise to a dismissive attitude towards schemes for the radical re-distribution of incomes under capitalism.

Mises was vulnerable on precisely this issue, and made it the point of entry for his attack.

The actual response: Oskar Lange and neoclassical socialism

"[T]he term 'price'," says Lange,[11] citing the authority of Wicksteed, "has two meanings. It may mean either price in the ordinary sense, i.e., the exchange ratio of two commodities on a market, or it may have the generalized meaning of 'terms on which alternatives are offered.' . . . It is only prices in the generalized sense which are indispensable to solving the problem of allocation of resources" (1938: 59–60). Lange bases his defence of socialism on the idea that a socialist economy can operate a price system in the generalized sense, emulating in certain ways the working of a market system, yet without having actual markets in means of production. His position is quite well known and does not require lengthy exposition here; we seek only to outline its main points in order to draw a contrast with our own proposals, and to provide a context for the Austrian counter-arguments which may also have some relevance to the latter.

Lange starts from the principles of Walrasian general equilibrium, emphasizing the point that the equilibrium price vector of a competitive economy is determinate on condition that it balances the supply and demand for all commodities, while (a) agents treat prices as parametric and (b) they optimize in a definite manner with respect to those prices. Given (a) and (b), each price vector maps onto a definite pattern of excess demands/supplies for all commodities, and only one price vector maps onto the zero vector of excess demands.[12] There is no reason, he argues, why a socialist economy cannot exploit this principle. What we require is that the planning authority sets 'accounting prices' for all means of production, and issues certain instructions to the managers of enterprises: treat the accounting prices as parametric; choose that combination of the factors of production that minimizes average cost of production at the given prices; and fix output such that marginal cost equals price of output. At the same time the managers of whole industries should follow the latter rule "as a principle to guide them in deciding whether an industry ought to be expanded (by building new plants or enlarging old ones) or contracted" (*ibid.*: 76–77). Consumers and workers, meanwhile, make their demand and labour supply decisions respectively, based on the parametric prices and wage rates they face.

There is no guarantee, of course, that the decisions made in the face of any given vector of accounting prices will be mutually compatible. In case of incompatibility, the planning authority performs the role of the Walrasian 'auctioneer', raising the accounting prices of goods in excess demand, and lowering the prices of those in excess supply. This should lead, over a number of iterations, to socialist general equilibrium. There is no denying the ingenuity of this 'solution'. Neither is it difficult to see its tactical advantage: neoclassical economists inclined to accept the Walrasian theory as an adequate account of

[11] Variations on the Lange theme were offered by H. D. Dickinson (1933), Abba Lerner (1934) and E. F. M. Durbin (1936) among others. But these other contributions, while differing on points of detail, are sufficiently similar to the better-known proposals of Lange that they do not require separate examination here.

[12] While he is aware that problems of multiple solutions and instability of equilibrium can arise under certain conditions, Lange assumes that a unique and stable general equilibrium is the norm.

the working of capitalist economies will, it appears, be forced to accept the validity of Langean socialism, *mutatis mutandis*.

Some Austrian counter-arguments

Against this brief outline of Lange, let us examine some of the objections raised by his Austrian critics. We identify three main points: the claim that Lange's proposal compromises the basic premises of socialism, the static nature of Lange's theory, and the problem of incentives.

Mises (1949: 701–2) states that on the traditional definition, socialism necessarily involves "the entire elimination of the market and catallactic competition." The presumed superiority of socialism rested on the "unification and centralization" inherent in the notion of planning.

> It is therefore nothing short of a full acknowledgment of the correctness and irrefutability of the economists' analysis and devastating critique of the socialists' plans that the intellectual leaders of socialism are now busy designing schemes ... in which the market, market prices for the factors of production, and catallactic competition are to be preserved.

Although Lange is not mentioned by name, it seems clear that schemes such as his are the target here. While we accept that much of the subsequent 'market socialist' literature *does* compromise socialism, several points might be made in defence of Lange. First, he stresses that in his system the distribution of income is under social control, and will be quite different from capitalism. Second, Lange argues that the socialist planners will take into account external costs and benefits which are ignored by private firms (though he does not say exactly how). Third, while his system emulates in certain ways a *competitive* economy, he points out that in *actual* capitalism "oligopoly and monopoly prevail" (1938: 107), leading to an inferior allocation of resources. Fourth, in his Appendix on the Marxist literature, Lange maintains that the classical socialist proposal of 'free sharing' of goods (Marx's 'to each according to his needs') "is by no means such economic nonsense as might appear at a first glance" (139). In a technically-advanced economy, the saturation point may be reached for certain goods (i.e. the point where the price is so low that demand becomes 'quite inelastic'). Lange speaks of a 'socialized sector' of consumption; initially this sector includes primarily 'collective wants', but he goes on: "It is quite conceivable that as wealth increases this sector increases, too, and an increasing number of commodities are distributed by free sharing until, finally, all the prime necessaries of life are provided for in this way, the distribution by the price system being confined to better qualities and luxuries" (141). Finally, we might make reference to Lange's (1967) essay in which he re-visits his arguments of thirty years earlier. Here he situates his original market-like proposals as essentially means of solving a system of simultaneous equations (those of general equilibrium). Now that electronic computers are available, he says, why not solve the equations directly? "The market process with its cumbersome *ttonnements* appears old-fashioned. Indeed, it may be considered as a computing device of the pre-electronic age" (1967: 158). In this light it may be more appropriate to label Lange's ideas as 'neoclassical socialism' rather than 'market socialism': it is clear that he thought of the market—even his artificial market of 1938—as merely one possible means of achieving a certain kind of optimization.

A second objection to Lange made by the Austrians concerns the static nature of his solution. Lavoie (1985, chapter 4) maintains that Lange answered a question which Mises regarded as trivial, while totally failing to engage with the difficult question of dynamics. Now there is no doubt that Lange employs a static equilibrium theory, but his method is at least *comparative* statics, and he does specify an adjustment mechanism which will supposedly converge on general equilibrium following any parametric change. When Mises denied that economic calculation was a problem under static conditions, on the other hand, he had in mind true *stasis*, where "the same events in economic life are ever recurring" (1935: 109). Whatever problems the Langean system may have, one may hardly claim that Mises refuted him in advance.

The more substantial point raised by Mises and Hayek, and later emphasized by Lavoie, involves the speed of adjustment following parametric changes. Hayek, for instance, noting that in the real world "constant change is the rule," states that "whether and how far anything approaching the desirable equilibrium is ever reached depends entirely on the speed with which the adjustments can be made" (1949: 188). Hayek goes on to argue that centrally-dictated prices cannot respond to change as flexibly as true market prices. The importance of this point goes beyond the assessment of Lange's particular argument. More generally, if the calculations required for socialist planning take too long, in relation to the pace of changes in consumer demand and technology, then planning is in trouble. We shall argue in section **??** that with present computing technology the relevant calculations can be carried out fast enough.

Perhaps we should pause on this question a moment longer. The charge that the 'static' nature of Lange's system robs it of any purchase on reality is the centrepiece of Lavoie's revival of the Austrian case, and although the positive proposals we present below are substantially different from Lange's they may be thought to be vulnerable to the same criticism. We don't wish to be accused of missing the point once again. Particularly relevant to our ideas is the claim of Mises and Hayek that the socialist planners cannot, outside of a static economy, have the full and up-to-date information on production possibilities which they need. To the extent that such claims are based on the limitations of communications and data-storage facilities, they are now simply out of date, but is there a further basis? Lavoie suggests that the problem lies not so much in data-*collection*, as in the *creation* of relevant data. True, if technology and consumer demand are changing over time, the best way of accomplishing any given end is not always (or even generally) known in advance. Experimentation is needed. To the extent that capitalist entrepreneurs carry out such experimentation, they perform an important social function. But the idea that only capitalist entrepreneurs are capable of performing this function seems to us baseless.[13] A socialist economy could set up an 'innovation budget', whereby an agreed fraction of social labour time is devoted to just such experimentation with new processes and products. Existing enterprises or groups of people with new ideas could apply for a share of this budget. The disposition of the budget might be divided between two or more parallel agencies, so that prospective innovators have more than one chance to have their ideas funded

[13] The valid point that a dynamic economy must be constantly in search of new methods and products, and hence 'production function' information is not given once and for all, tends to shade over, in Mises and Hayek, into what one might call a 'mysticism of the entrepreneur'—a radical subjectivism for which we can see no scientific justification.

(hence lessening the risk of 'ossification' of the process). As the results of such experimentation come in, successful new products could be incorporated into the regular plan, and successful technologies 'registered' as an element of the regular input–output structure of the economy.[14]

The third objection concerns incentives, in connection with the social function of the capitalists. Lange has his socialist managers following certain rules in order to achieve an optimal allocation of resources. Mises responds that while it might seem reasonable to draw a parallel between such socialist managers and the salaried managers of a capitalist joint-stock company, the whole argument overlooks the vital role of the *capitalists* themselves, which cannot be emulated by salaried functionaries. The dynamic adjustment of a capitalist economy requires

> that capital should be withdrawn from particular lines of production, from particular undertakings and concerns and should be applied in other lines of production. . . . This is not a matter for the managers of joint stock companies, it is essentially a matter for the capitalists—the capitalists who buy and sell stocks and shares, who make loans and recover them, . . . who speculate in all kinds of commodities (Mises, 1951: 139).

Furthermore, Mises argues, "no socialist would dispute that the function which capitalists and speculators perform under Capitalism . . . is only performed because they are under the incentive to preserve their property and to make profits which increase it or at least allow them to live without diminishing their capital" (*ibid.*: 141). Maybe so, but the import of the argument here is not entirely clear. At one level, Mises is arguing against market socialism, claiming that the *market* system cannot work without capitalists. This may well be true, but as we have already remarked, 'market socialism' may not be an accurate label for Lange's system. Then again, he may be saying that major investment decisions, decisions to wind up or consolidate enterprises and so on, cannot be reduced to following simple rules. This is also true, and perhaps does cut against Lange. If, however, Mises is claiming that such decisions may be made conscientiously, with due attention to risk but without excessive conservatism, *only* by individuals motivated by the prospect of great personal wealth (in case of success) or personal financial ruin (in case of failure), then we flatly disagree.

Why Labour?

At a conference in 1992 organised at the instigation of Waclaw Klaus at Pareto Institute in Lausanne we were only economists defending the idea of a planned economy. Our use of the labour theory of value was criticised as a form of 'naturalism'. It was argued that it made no more sense to say labour was the basis of value than it did to say oil was the basis of value. One element of our research program over the last decade has been to contribute to re-establishing the scientific validity of the labour theory of value. There is now an increasing body of empirical research that validates the labour theory of value[15], and we are more confident than ever of the soundness of this approach.

[14] We are not quite ready yet to define 'success' in this context, but we shall do so in section **??** below.

[15] See for instance: Ochoa (1989), Petrovic (1987), Shaikh (1998), Cockshott and Cottrell (1997), Michaelson *et al.* (1995), Cockshott and Cottrell (2003).

Another issue that has been raised, this time by left wing economists, is whether it is valid to use the category labour value in a socialist economy. Should we not see value, and the abstract labour on which it is based, as something specific to capitalism. This is an intially appealing idea, since one does not want to make the mistake of classical and neo-classical economics and see what are transient historical forms like wages and capital into eternal features of all economies. With the abolition of commodity production under socialism, will value itself not disappear?

We think this idea confuses trans-historical categories with their historical form of appearance. Instruments of production are a transhistorical category, capital is a historically specific form in which these are can be represented. We see abstract human labour as a similar trans-historic category. It is the adaptability of human labour that distinguishes us from other animals. Unlike worker ants or bees, we are not born to a task. We learn our roles in life and can learn to move between roles. It is this abstract, polymorphous potentiality of human labour that makes human society possible. All societies are constrained by the hours in the day and the size of the population. They differ in the means by which human individuals are taken from being undiferentiated infants to being productive agents fullfilling concrete roles. In caste based societies the abstract potentiality of each individual may not be realised but that abstract potentiality is there. There is no significant genetic difference betweenan untouchable infant and a brahmin one, but the fixed nature of social customs may make it appear to the actors in such a society that such differences exist. Christianity and Islam could preach human equality but on the abstract level of equality ofsouls - the religious abstraction of humanity, but in the absence of the appropriate social conditions it was an equality realised by the soul after death.

Capitalist society, which in principle allows any person to be hired for any job they can be trained to do, brings out the abstract polymorphism of human labour more clearly than previous modes of production. Of course we know that discrimination on grounds of skin colour, religion or gender exist in such countries, but such discrimination is visible as a contradiction with the underlying principle of labour mobility, and the tendency in capitalist society is towards reducing such discrimination. This abstract fluidity of human labour is further held back in capitalist society by class divisions which restrict education and training to working class families. But it is just these remaining restrictions on abstract labour that socialism will abolish allowing all children the same choices of occupations. This is an essential feature of socialism: that it transforms the abstraction of human equality into a social reality.

It has been objected that Marx was a strong critic of ideas of 'labour money', are we not guilty of introducing just what he criticised. Let us briefly consider the Marxian critique of 'labour money' schemes; for there may appear to be a tension between the latter critique and Marx's own proposals. Indeed, the 'critique of labour money' is open to a (mis)reading which takes it as critical of any attempt to *depart from* the market system, towards a direct calculus of labour time. As we shall see, it appears that this reading has been made by writers as far apart as Karl Kautsky and Terence Hutchison.

The basic object of Marx and Engels's critique might be described as a 'naïve socialist' appropriation of the Ricardian theory of value. If only, the reformers argue, we could impose the condition that all commodities really exchange according to the labour embodied in them, then surely exploitation would be ruled out. Hence the schemes, from John Gray in England, through a long list of English 'Ricardian socialists', to Proudhon in France, to Rodbertus in Germany, for enforcing exchange in accordance with labour values.[16] From the standpoint of Marx and Engels, such schemes, however honourable the intentions of their propagators, represent a Utopian and indeed reactionary attempt to turn back the clock to a world of 'simple commodity production' and exchange between independent producers owning their own means of production. The labour-money utopians fail to recognize two vital points. First, capitalist exploitation occurs though the exchange of commodities in accordance with their labour values (with the value of the special commodity labour-power determined by the labour content of the workers' means of subsistence). Second, although labour content governs the *long-run equilibrium* exchange ratios of commodities under capitalism, the mechanism whereby production is continually adjusted in line with changing demand, and in the light of changing technologies, under the market system, relies on the *divergence* of market prices from their long-run equilibrium values. Such divergences generate differential rates of profit, which in turn guide capital into branches of production where supply is inadequate, and push capital out of branches where supply is excessive, in the classic Smith/Ricardo manner. If such divergence is ruled out by fiat, and the signalling mechanism of market prices is hence disabled, there will be chaos, with shortages and surpluses of specific commodities arising everywhere.[17]

One point which emerges repeatedly in the Marxian critique is this: according to the labour theory of value, it is *socially necessary* labour time which governs equilibrium prices, and not just 'raw' labour content (Marx, 1963: 20–21, 66, 204–5). But in commodity-producing society, what is socially necessary labour emerges only through market competition. Labour is first of all 'private' (carried out in independent workshops and enterprises), and it is validated or constituted as social only through commodity exchange. The social necessity of labour has two dimensions. First of all, we are referred to the technical conditions of production and the physical productivity of labour. Inefficient or lazy producers, or those using outmoded technology, will fail to realize a market price in line with their actual labour input, but only with the lesser amount which is defined as 'necessary' (with respect to either average productivity or best-practice technique—Marx is not always consistent on precisely which). Secondly, as the passages quoted from *Capital* III above testify, there is a sense in which the social necessity of labour is relative to the prevailing structure of demand. If a certain commodity is over-produced relative to demand, it will fail to realize a price in line with its labour value—even if it is produced with average or better technical efficiency. The proponents of labour money want to short-circuit this process, to act as if all labour were *immediately* social. The effects within commodity-producing society cannot but be disastrous.

Now the lessons which Marx and Engels read to the labour-money socialists, concerning the beauties of the supply/demand mechanism under capitalism and

[16] Marx criticizes Proudhon's scheme in his *Poverty of Philosophy* ([1847] 1963), and deals with John Gray in his 1859 *Contribution to the Critique of Political Economy* (the relevant section of which is reprinted as an Appendix to Marx, 1963), while Engels tackles Rodbertus's variant in his 1884 Preface to the first German edition of *The Poverty of Philosophy* (again, in Marx, 1963). Between Marx in 1847 and Engels in 1884 we find a consistent line of attack on such proposals.

[17] Direct quotation is hardly necessary to establish these points. See for instance Marx (1963: 17–20, 60–61, 66–9, 203–6).

the foolishness of the arbitrary fixing of prices in line with actual labour content, are obviously rather pleasing to the critics of socialism. Terence Hutchison (1981: 14–16), for instance, lauds Engels for his recognition of "the essential role of the competitive market mechanism" as displayed in his critique of Rodbertus. "Mises and Hayek," writes Hutchison, "could hardly have made the point more forcefully." But as Hutchison's praise is merely a preface to his denunciation of Engels for failing to realize that the very same critique cuts the ground from under his and Marx's own proposals for socialist planning, we must be careful to define the limits of the Marxian critique of labour money. Of greater importance for the history of the debate, it appears that Kautsky also read the critique of labour money as casting doubt on the Marxian objective of direct calculation in terms of labour content, so that by the 1920s the figure widely regarded as the authoritative guardian of the Marxian legacy in the West had effectively abandoned this central tenet of classical Marxism.[18] Against this background, one can appreciate why Mises was able to get away with a brief and rather offhand dismissal of planning by means of labour values.

From the account of the critique of labour money we have given above, the limits of that critique should be apparent. What Marx and Engels are rejecting is the notion of fixing prices according to actual labour content *in the context of a commodity-producing economy* where production is private. In an economy where the means of production are under communal control, on the other hand, labour *does* become 'directly social', in the sense that it is subordinated to a pre-established central plan. Here the calculation of the labour content of goods is an important element in the planning process. And here the reshuffling of resources in line with changing social needs and priorities does not proceed via the response of profit-seeking firms to divergences between market prices and long-run equilibrium values, so the critique of labour money is simply irrelevant. This is the context for Marx's suggestion for the distribution of consumer goods through 'labour certificates'.

This suggestion appears in its fullest form among Marx's critical comments on the Gotha Programme of the German Social Democratic Workers' Party of 1875 (Marx, 1974: 343–8). First, against the claim that each worker should receive 'the undiminished proceeds of labour', Marx points out that a socialist society must allocate a substantial part of the total product to cover depreciation, accumulation of means of production, social insurance, administration, the communal satisfaction of needs (schools, health services, etc.), and for the needs of those unable to work. Nonetheless, this leaves a portion of the total product for distribution as means of personal consumption. As to the nature of this distribution, Marx talks of two stages in the development of communism. At some future point, when 'all the springs of cooperative wealth flow more abundantly' it will become possible to 'cross the narrow horizon of bourgeois

[18] In his book *The Social Revolution* (1902: 129–33), Kautsky offers a brief and rather ambiguous discussion of the 'law of value' and socialism, which combines statements of the classical Marxian theses with strangely incongruous comments on the 'indispensability' of money. In his later work, *The Labour Revolution* (1925: 261–70) the formulations of Marx and Engels are dropped in favour of a general argument for the necessity of money and prices. This argument appears to owe something to the 'critique of labour money' discussed above; it also draws on the idea that the measurement of labour content is impracticable—it "could not be achieved by the most complicated State machinery imaginable" (267). Incidentally, Kautsky (1925) is highly critical of Neurath's 'planning in kind' on very much the same grounds as Mises and Hayek.

right' and institute the famous principle of 'from each according to his abilities, to each according to his needs,' but in the first stage of communism Marx envisages a situation in which the individual gets back—after the deductions noted above—what he has given to society.

> What he has given it is his individual quantum of labour. For instance, the social working day consists of the sum of the individual hours of work. The individual labour time of the individual producer thus constitutes his contribution to the social working day, his share of it. Society gives him a certificate stating that he has done such and such an amount of work (after the labour done for the communal fund has been deducted), and with this certificate he can withdraw from the social supply of means of consumption as much as costs an equivalent amount of labour (346).

The labour certificates Marx talks of here are quite different from money. They do not circulate, rather they are cancelled against the acquisition of consumer goods of equivalent labour content. And they may be used for consumer goods alone; they cannot purchase means of production or labour power, and hence cannot function as capital.

The *logic* of the Marxian position is clear: 'labour money' in a commodity-producing society is a utopian and economically illiterate notion, but the allocation of consumer goods via labour certificates under socialism is quite a different matter; it is one possible mode of distribution of (a certain portion of) the social product in a system where the mode of production has itself been changed through the socialization of the means of production and the institution of planning. Whether this conception is *persuasive*, however, depends on whether it is possible to elaborate convincingly the notion of the planned mode of production. We believe we have done this.

Chapter 17

Transition to Socialism

Here and now

So far we have not addressed the transition from capitalist to socialist economy, the transition from an economy regulated by the echange of commodities for money, and the extraction of surplus as surplus value to one regulated in-natura by the plan, and with a plan-governed extraction of the surplus product. Clearly an economic model designed to answer the problems of a mature socialist industrial economy like the USSR can not be applied immediately to Venezuela. What it can do, is give people some idea where the process of socialist transformation may end up. It can warn them about avoiding some economic mistakes that were made in the USSR and Eastern Europe: for those who do not learn from history are doomed to repeat it.

When a society undergoes a transition to socialism there are decisions that have to be made, forks in the road that have to be chosen. If the wrong set of turnings are chosen, you can end up going in a circle. Starting off going towards socialism, you can end up on a path that eventually leads back to capitalism. We all know that this happened in several 20th century attempts to go towards socialism. The worst thing is that the implications of decisions are not immediately obvious at the time they are made. This means that, almost up until the last moment, people can think that they are still on the right course.

Let us summarise the 3 key features of the mature socialism that this book describes:

(1) The economy is based on the deliberate and concious application of the labour theory of value as developed by Adam Smith and Karl Marx. It is a model in which consumer goods are priced in terms of the hours and minutes of labour it took to make them, and in which each worker is paid labour credits for each hour worked. The consistent application of this principle eliminates economic exploitation.

(2) Industry is publicly owned, run according to a plan and not for profit. Stage retail enterprises for example, work on a break even rather than profit making basis.

(3) Decisions are taken democratically, both at a local and a national basis. This applies in particular to decisions about the level of taxation and state expenditure. Such democratic decision making is vital to prevent the replacement of private exploitation with exploitation by the state.

Let us look at these points one at a time.

Moving beyond money

The European economy will still based on money at the point at which the socialist movement comes to power.. In Capital, Karl Marx showed how money was at the root of the evils of capitalism. The essence of capitalism is to start out with a sum of money at the beginning of the year and end up with a larger sum at the end. Marx denoted this by M¿M', where M might be $1,000,000 for example and M' might be $2,000,000.

Because capitalists have more money than working people, they can use this money to hire workers to work for wages. These wages are much much less than the value which workers create during the working week. Since the capitalist can sell the product for more value than they paid out in wages, the capitalists become richer and richer whilst workers stay as poor as ever. This process is the root cause of the difference between rich and poor.

On top of this there is a secondary form of exploitation that allows capitalists to increase their money: lending money at interest. This process allows the money-lender to get richer year by year by doing absolutely nothing. This process has become increasingly important as a form of exploitation within the developed capitalist countries. The extension of credit in the last 30 years means that the great bulk of the working class and lower middle classes and in debt, exploited by the banks and credit card companies.

Largely an unplanned economy

In the EU, unlike for example the USSR, the supply of most goods and services is regulated by the market. Whilst this is not entirely a bad thing, since it does, to a limited extent allow supply to be adjusted to peoples wants, the drawback is that the provision of goods and services is systematically biased towards the wishes and desires of the rich. The EU currently lacks the mechanisms by which the structure of the economy as a whole can regulated by a concious social plan both to achieve development and to equitably meet the needs of all citizens.

Up to this point we have assumed public ownership of the economy. Most of the European economy, is still privately owned. The percentage of private ownership of the economy is greater than it was 25 years ago, though, since the financial collapse of 2008 there has been some movement back towards state ownership.

How to effect the transformation

The great economist Keynes remarked that practical political men, whether they be cautious or bold, fond themselves unconsciously repeating the ideas of long dead economists. Politicians who advance neo-liberalism, whether they know it or not, are repeating the ideas of the reactionary Austrian economists Ludwig von Mises and von Hayek. The policies that we suggest below counter those ideas by drawing on the insights of others particularly the Scottish philosopher Adam Smith, the German economist Karl Marx, the Polish socialist economist Oscar Lange and the Englishman Maynard Keynes.

We will now shift the focus to specific policy measures, which we will present one by one and whilst explaining how each of these helps to achieve the broader objectives we have described.

Monetary reform

European monetary policy is dominated by the European Central Bank(ECB). This institution, operating outside of any democratic control, is charged with ensuring the monetary conditions for the continued reproduction of European capitalism. The removal of the bank from democratic control, and the imposition of strict anti-inflationary policies represent one of the key victories of late 20th century liberalism. Of itself, inflation is not necessarily against the interests of the poor and working classes, provided that wages keep up with prices. The people who are hit hardest by inflation are the rentier class whose holdings of money and interest bearing assets depreciate. Since these people are opponents of socialism anyway, a socialist government need not worry about any financial loss they suffer were it not for the other social effects of inflation.

Uncertainty about future prices can lead to a social psychology of instability leading to a loss of confidence in the government. This sort of inflation played a role in the collapse of the USSR. If for no other reason, it is desirable that a socialist government in Europe follow a policy of price stability. Indeed, our proposals in earlier chapters to replaced money with labour vouchers are tantamount to a long term policy of declining prices.

Since our objectives are to establish a socialist economy based on the equivalent payment of labour, then monetary reform can be a step towards this goal. We suggest that the ECB be placed under a legal obligation to maintain a stable value of the currency in terms of labour. A prototype for this could be the successful monetary policy of the British Labour Government after 1996. At that time the government placed monetary policy under a committee of expert economists (The Monetary Policy Committee) rather than politicians and gave them a clear legal obligation to achieve a particular target rate of inflation. One might have expected this policy to be severely deflationary, but it has actually been very successful, because committee are legally obliged to avoid both deflation and inflation in their policy.

Where our proposal differs from British policy is in the goal it sets – we advocate fixing the value of the Euro in terms of labour not in terms of the cost of living index – and in the democratic composition of the Value Policy Committee which should control the ECB. The reasons for the goal are :

(1) As labour productivity rises, a Euro fixed in terms of hours of labour, will be able to buy more each year, cheapening the cost of living.

(2) Once the value of the Euro has been stabilised in terms of labour, then the labour value of Euro notes should be printed on them in hours and minutes. This step would be an act of revolutionary pedagogy. It would reveal clearly to the oppressed just how the existing system cheats them. Suppose a worker puts in a working week of 45 hours and gets back Euros and sees that the hours printed on them amount to only 20 hours, then she will become aware that she is being cheated out of 25 hours each week. This will act to raise the socialist consciousness, and create favourable public opinion for other socialist measures.

Instead of just having a committee of economists charged with regulating the value of the Euro, the principle of participative democracy implies that the Value Policy Committee should be made up both of economists and delegates from the trades unions and consumers associations.

The Value Policy Committee would have to commission surveys of how much work was being done in different industries, and how much monetary value added there was in these industries, in order to guide its stabilisation policy.

Reform of accounting and pressure for fair prices

All firms have currently to prepare money accounts, The state should make it a condition of their accounts being approved for auditing, that they also produce labour time accounts and that they mark on all products that they sell their labour content.

Initially firms need not be legally obligated to sell their commodities at their true values. They could attempt to sell them for a price that is higher or lower than the true value. But since the consumer can now see when they are being overcharged, consumers will tend to avoid companies that sell goods at above their true value. This will put psychological and consumer pressure on companies that are overcharging. This too will be an act of socialist mass pedagogy to raise consciousness.

In the first few months, before all goods have their labour values printed on their price tags, firms will have to impute labour values to the goods they purchase using the printed exchange rate between Euros and labour hours. They will add to the labour value of their inputs, the number of hours of work that are performed by their employees to get a labour value for the final product.

We mentioned earlier the need to establish labour accounting in industry for pedagogic purposes. The EU should also move towards having a dual system of EU economic accounts, labour accounts alongside money accounts because, at the level of EU economic policy, there are many issues on which labour accounts would be more informative than money accounts. Money accounts hide the fact that what government economic policy really does is re-allocate society's labour. Money is the veil behind which real labour allocation occurs.

Enshrine the rights of labour in law

Scientific evidence shows that in the capitalist world the money value of goods is overwhelmingly determined by their labour contents. Studies find that for most economies the correlation between labour values and prices are 95% or above. So Adam Smiths scientific hypothesis that labour was the source of value has now been statistically verified.

This scientific fact should be incorporated in law.

The right not to be exploited

The law should recognise that labour is the sole source of value and that in consequence, workers, or their Unions will have a claim in law against their employers if they are paid less than the full value of their labour.

If we consider the previous measures and the revolutionary pedagogy that would follow from them, it should be relatively easy to pass a referendum on such a law.

Following such a law being passed, there would be a huge wave of worker activism as workers and their unions sought to end the cheating and deceit to which they and their ancestors had been subjected. It would also bring about a very large increase in real wages, cementing support for the socialist government.

The employing class, on the other hand would see sharp fall in their unearned incomes. Employers who were active factory managers would of course still be legally entitled to be paid for the hours that they put in managing the firm, just like any other employee.

The tribunals to which such claims were brought would have to be dominated by juries rather than professional judges. Juries drawn from the population at large are likely to be less influenced by the special interests of the employing class, than are judges whose social position is close to that of the employing class.

The right to industrial democracy

The emphasis above is on the state enabling the workers movement to act collectively to prevent exploitation. If unions won court actions giving employees the full value that they created, then there is a danger that some firms would attempt to close down and fire workers rather than continue in business. Thus legislation aimed at protecting the rights of labour would have to include the right, after a suitable ballot of employees, for employees to elect the majority of the board of any company.

The cumulative effect of the measures outlined so far would be to substantially abolish capitalist exploitation in the workplace at least in the short term. There will be long term difficulties if other measures are not taken, and we shall examine these later.

Eliminating other forms of exploitation

In addition to the exploitation of employees by employers, there are other forms of unearned incomes, the most economically important of which are interest and rent.

Usury

Interest, the getting of money from money itself, was regarded for thousands of years as being sinful. Philosophers like Aristotle condemned it. Papal encyclicals banned it. Islamic law still forbids it in Muslim countries. But in capitalist countries, such was the social power of the banks and other money lenders that this moral objections came to be forgotten.

In capitalist countries which were undergoing very rapid industrialisation, for instance, Japan in the 1950s or 1960s, lending money at interest did serve a necessary economic purpose, since it allowed peoples savings to be channelled, via the banks, to fund industrialisation. But once a country has industrialised, firms finance most of their investment from internal profits. Indeed they normally have more profit than they know how to invest. Instead of borrowing from the banks, industrial firms run a financial surplus, and they themselves lend to the banks. The banks now channel the financial surplus of firms into loans to consumers, or to governments. Lending at interest looses the temporary progressive function that it had during industrialisation and reverts to being what morality and religion originally condemned : usury.

Socialism abolishes interest as a form of income. It has no class of rentiers people who do no work but just live off the interest on their money. So it is clear that at some point, that a government seriously intent upon socialism has to pass a legislation banning the lending of money at interest. It could specify, for instance, that interest on debt could not be enforced in the civil courts. It could impose severe criminal penalties on those who used threats of harm to extort interest.

Before moving to a step such as this, a socialist government needs to put in place replacements for the economic functions still served by lending, and charging interest.

Investment

It will still be necessary to fund new investments. During the crisis of 2008 it has been necessary for some European states to take control of large parts of the banking system. From this baisis it is clear that investment could in principle be funded by interest free loans from publicly controlled banks. In a time of recession however, it becomes important to ensure the availability of credit, so that even capitalist governments have to impose controls on the banking system. But if this is not done with care, the resulting expansion of the money stock will lead to the type of suppressed inflation which occurred in the USSR.

Investment on credit is based on the illusion that you can push the cost of investment into the future. Whilst this can be true for an individual borrower, for society as a whole, today's investment has to be made using today's labour. We can not get future generations to travel back in time in order to do work for us. Socialist economies should thus rely predominantly on tax revenue to fund investment.

Regulating price levels

Capitalist central banks try to control inflation by adjusting the interest rate. If inflation is too high, they raise interest rates. The effect is to choke off investment, reduce demand, and so reduce inflationary pressures. If interest is banned, how is the price level to be regulated ? or, in the light of what we said earlier how would the Value Policy Committee ensure that the value of the Euro in terms of labour was held steady?

An alternative control mechanism would be to adjust the term on which loans are made. The state bank could set maximum durations for loans. For example, if the Value Policy Committee thought the value of the currency was in danger of falling it could shorten the period for which loans could be had. If loan periods were reduced from 10 year to 5 years, then monthly repayments rise, just as happens with interest rate rises today.

Another means of regulating prices is tax policy. Paper money, like the Euro, is inherently worthless just printed paper. It has value imputed to it, from the fact that the state (or a confederation of states) will accept its own currency for tax debts. The fact that people need money to pay their taxes, forces them to value it. If governments tax less than they spend, the money stock will rise leading to inflation. The second way to regulate prices during the transition to socialism is thus to fine tune tax levels.

Rent

Rent is another type of exploitation. Socialists regard it as immoral since the owner of land enriches himself, not by his own labour, but by the labour of others combined with the bounty of nature. Rent is however an inevitable phenomenon in a commodity producing society. If there is some product, be it crude oil, or corn, the efficiency whose production depends on the land being used, then rent incomes will arise.

We argued earlier that in a socialist economy all rent income should accrue to the state and be used for the good of the community in general. Socialist states have usually nationalised land, but have not always charged a rent for using the land. In the case of mineral extraction this made no difference, since this was done by state enterprises and rent would just have been a fictitious transfer between sections of the state. Failure to charge agricultural rents to collective farms will, however, accentuate differences in income between fertile and less fertile agricultural regions.

In the immediate situation, the nationalisation of land may not initially be politically opportune since it could drive the small farmers into alliance with large landowners. An alternative, which over the long term would produce a similar effect, would be to introduce a land tax on the rentable value of land. The threshold for the tax could be set high enough to ensure that small farmers paid nothing or only a token amount, but for larger more fertile estates it could be set at a level that would confiscate the greater part of rent revenue. The effect on the landowners would be similar to that which would be achieved by nationalisation depriving them of their unearned income and making it available for communal uses but it is ideologically harder for them to mount a campaign to justify tax evasion than it is to mount one to justify resistance to expropriation.

State finance and foreign currency

This brings us onto the general topic of state finance.

Socialist economies typically have a higher level of state expenditure than capitalist ones at a comparable level of economic development. It is essential that the state has an efficient revenue raising mechanism, with taxes that are easy to collect and difficult to avoid.

Social democratic states like Sweden relied mainly on income taxes along with an efficient civil service. East European socialist states like the USSR relied upon turnover taxes on industry and on profits earned by state firms.

Which of these models of tax revenue should be used is one of the major strategic issues that has to be faced by Venezuela as it moves towards a socialist economy.

We argue that the Soviet model of taxation had several drawbacks, which, in the long run, contributed the final collapse of the Soviet socialist economy.

(1) The use of indirect taxation, such as turnover or value added taxes, and a-fortiori a reliance on profit income, puts the state in the position of being a collective capitalist vis a vis the workers.

(2) The use of indirect taxation, has also traditionally been opposed by socialists as these are regressive rather than progressive forms of taxation.

(3) It resulted in a distorted price structure that systematically undervalued labour to the detriment of economic efficiency.

(4) Reliance on the profit of state industry is a hidden form of revenue, which is not easily amenable to democratic control.

We therefore strongly advocate a reliance on income and asset taxes rather than indirect taxes.

However, since they undermine what are important functional components of capitalism there would be consequences if alternative mechanisms were not put into place.

Ending the production of surplus value by paying workers the full value they create would make employment unprofitable. There is a danger under these circumstances that capitalists would find it more profitable to leave their money in the bank and earn interest on it than use it to employ workers.

It would thus be important that the payment of interest was abolished prior to introducing the right to the full value of labour.

It would might well also be necessary to introduce the right for employees to be able to vote for their firm to be co-managed with a co-management committee having a clear majority of employees on it, in order to prevent owners asset stripping and closing the now unprofitable firm.

After this phase of transition the economy would still be capitalist, but the ownership role of individual capitalists would be greatly reduced. The most serious economic disruption would have been to the financial sector where the profitability of stockbroking and investment banking firms would drastically decline. But this decline would be manageable, being no worse than the structural changes to many heavy industries that occured during the last 20 years.

A second phase of transition involves the development of the capacity for detailed planning - setting up of the administative system, establishment of the democratic control mechanisms and construction of the computer networks and software that would be required to carry out the sort of planning we discuss in the book. Initially these plans would be indicative, becoming mandatory as the system bedded down.

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