

## The "Economic Calculation" controversy: unravelling of a myth

Robin Cox

*The economic calculation argument (ECA) has to do with the claim that, in the absence of market prices, a socialist economy would be unable to make rational choices concerning the allocation of resources and that this would make socialism an impracticable proposition. Tracing the historical development of this argument, this article goes on to consider some of its basic assumptions about how the price mechanism actually works in practice; in so doing, it attempts to demonstrate that the argument is based upon fundamentally shaky foundations. A rational approach to the allocation of resources in a socialist economy is then sketched out. Such an approach is predicated on a particular view of socialism as entailing a largely decentralised – or polycentric – structure of decision-making in contrast to the view typically held by proponents of the ECA that socialism would entail central – or societywide – planning. Applying a decentralised model of socialist decision-making, this article identifies a number of key components of such a model and goes on to show how, through the interactions of these key components, the objections to socialism raised by the ECA are decisively overcome.*

### 1. HISTORICAL BACKGROUND

The "economic calculation argument" (ECA) is principally linked with the Austrian economist, Ludwig von Mises, who wrote a seminal tract ("Economic Calculation in the Socialist Commonwealth") in 1920, purporting to show that socialism was not a realisable system. Mises was not alone in developing this argument; his contemporaries Boris Brutzkus and Max Weber had independently arrived at the same conclusions that same year. Moreover, a number of earlier commentators – for example, Gossen, Wicksteed, Wieser, Bohm-Bawerk, Pareto, Barone and particularly the Dutch economist, Nikolaas Pierson – had all developed partial elaborations of the ECA before Mises<sup>1</sup>.

Following the Russian revolution and the emergence of Soviet state capitalism, a vigorous debate ensued on the feasibility of socialism, a term which had been widely understood to be synonymous with Marx's non-market communism (or, at the very least, meant a system lacking a market for "factors of production" if not consumer goods). The developments in Russia, while serving to stimulate the debate, nevertheless helped to muddy the waters considerably. Thus, Lenin departed sharply from the classical Marxian definition of socialism as a synonym for communism by portraying it instead as a stage between capitalism and communism. The aborted attempt to introduce so called "war communism" in 1918-1921 (in reality, a rigorous system of centralised rationing which, moreover, still retained elements of the market, rather than "free access" communism) was a further source of confusion; it allowed anti-socialists to argue that socialism had been shown to be impracticable in practice and not just in theory. This, of course, completely overlooked the fact Marxists too had argued that socialism was not feasible in Russia at the time given that the necessary preconditions for a socialist revolution to occur had not yet ripened – a mass working class imbued with socialist understanding and a sufficiently developed means of production.

O'Neill contends that it is wrong to suppose there was just one single unified debate at the time. Instead, there were "at least two debates that concerned two independent objections to socialism"<sup>2</sup>. The first of these was about "rational choice and commensurability" which is central to the ECA itself. The second, mainly instigated by Mises' torchbearer, F A Hayek, had to do with an "epistemic objection to socialism" concerning centralised – or society wide – planning and the dispersal of knowledge among economic actors in an economy. While these two different streams of discourse may have been conducted along relatively independent lines I will argue (later) that they are nevertheless organically linked. Indeed, much of what is demonstrably false about the ECA stems from a misconceived and myopic assumption that socialism can only be a centrally planned

economy, a claim that Mises himself tirelessly promoted. This, however, effectively precludes the possibility of a spontaneously ordered or decentralised version of socialism which alone, I would maintain, decisively overcomes the objections to socialism raised by the ECA.

The high watermark of the "economic calculation" controversy was in the 1920s and 30s. O'Neill distinguishes between an earlier and relatively neglected German-speaking phase of the debate which pitted Mises and his supporters against the likes of Otto Neurath, Karl Polanyi and Otto Bauer, and a later English-speaking phase which involved neoclassical "market socialists" like Fred Taylor and Oskar Lange. In the 1940s Mises reputation as a free market economist waned along with the free market itself, as the fashion for Keynesian state intervention took hold. It was only after the failure of Keynesian reformism in the 1970s and the collapse of state capitalist regimes in Eastern Europe in the 1980s that Mises' ideas were rescued from obscurity and underwent a partial revival.

## 2. AN ILLUSTRATIVE EXAMPLE

So what exactly is the ECA about? To elucidate its core claims it would be helpful to use a hypothetical – and highly simplified – example.

Assume a factory in socialism manufactures a particular kind of consumer good, X. Assume that in order to manufacture X only two kinds of inputs are needed, A and B. Let us then suppose that there are three different methods for producing 1 unit of X which involve three different combinations of A and B, as follows:

Method 1 requires 9 units of A and 10 units of B  
Method 2 requires 10 units of A and 9 units of B  
Method 3 requires 10 units of A and 10 units of B

This prompts the question: which method should this factory chose in order to produce 1 unit of X? One might argue that it would make sense to use as few resources as possible to produce a given output since that would leave more resources over for doing other things. This alludes to what economists call "opportunity cost". The opportunity cost of doing something is the best alternative you forego as a result. If you use a certain quantity of resources to produce one thing then you deny yourself the opportunity of using those same resources to produce something else. By minimising your opportunity costs you maximise the amount of resources that can be used for other purposes.

In terms of our example, this would require our factory at the outset to reject method 3. Why? Because while method 3 uses the same number of units of B as method 1, it uses more units of A. Compared with method 2, on the other hand, it uses the same number of units of A but more of B. So methods 1 and 2 are both more "technically efficient" than method 3. This means they do not make use of any more of either A or B than method 3 while using less of at least one of these inputs than method 3. In other words, there is no opportunity cost involved in rejecting 3 in favour of 1 or 2 assuming the output is identical in each case. However it is possible method 3 may result in a slightly higher quality version of X because of the additional unit of A or B used (compared to method 1 or 2) in which case a small opportunity cost might be incurred.

All this is fairly straightforward and there is no suggestion by proponents of the ECA that a socialist economy cannot ascertain whether one method of producing something is more – or less – technically efficient than another. A socialist economy will have no problem in seeing the need to reject method 3. The problem arises when we come to chose, in the case of our example, between the remaining methods 1 and 2. How would we know which of these two methods made least use of resources, thereby freeing up more resources for other uses? Here we encounter a quite different notion of efficiency – namely, economic efficiency. According to the ECA this requires us to

directly compare A and B by reducing each to a common denominator so that we can select the least costly combination of A and B – method 1 or method 2 – to produce 1 unit of X. For that, it is argued, you need a price system, allowing units of A and B to be costed in money terms. So if 1 unit of A cost one dollar and 1 unit of B cost 2 dollars, the total cost of producing 1 unit of X using method 1 would be 29 dollars and 28 dollars using method 2. Therefore, it would be advisable for the factory to select method 2 as the “least costly combination” of inputs A and B.

The problem is that a socialist factory would not have recourse to monetary prices in order to make such a “rational decision”. Socialism is based on the common ownership of the means of production. Without private property in the means of production, according to Mises, there can be no market for the means of production. Without a market for a means of production, it will be impossible to attach monetary prices to the means of production. Without monetary prices, reflecting the relative scarcity of these inputs, socialist decision-makers will be unable rationally to calculate how best to allocate these inputs in a way that ensures economic efficiency. In other words they will be unable to compare the proceeds of any economic activity with the costs incurred to determine whether it was worthwhile or not – that is to say, whether or not it realises a “net income”. The likelihood then is that these decision-makers “groping in the dark” will select more, rather than less, costly combinations of inputs and so use up more resources than would be the case had they recourse to a system of monetary prices. The cumulative effect of such economically inefficient decision-making would be to precipitate a sharp fall in output and living standards which the population is unlikely to accept. Hence Mises’ claim that “Socialism is not a realizable system of society’s economic organization because it lacks any method of economic calculation”<sup>3</sup>.

### 3. PRELIMINARY CRITICISMS OF THE MISESIAN MODEL

At first blush, the ECA would appear to be highly plausible. However, on closer inspection we can discern hairline fractures in the very foundations of this model which render it highly vulnerable to sustained criticism. Let us consider some of these defects first before turning our attention to the organisation of production and the allocation of production goods in a socialist economy.

#### A) Subjective valuation and price

According to Mises and the Austrian School of Economics, the value of goods and services is necessarily subjective and does not inhere in the good or service in question; economic costs are essentially subjective, opportunity costs and utility preferences can only be expressed along an ordinal scale – i.e. ranked – as opposed to a cardinal scale which entails precise measurement. How then do we arrive at the necessary data upon which a system of economic calculation is predicated? Salerno puts it thus. The problem with socialism, he claims, is that it lacks “a genuinely competitive and social market process in which each and every kind of scarce resource receives an objective and quantitative price appraisal in terms of a common denominator reflecting its relative importance in serving (anticipated) consumer preferences. This social appraisal process of the market transforms the substantially qualitative knowledge about economic conditions acquired individually and independently by competing entrepreneurs, including their estimates of the incommensurable subjective valuations of individual consumers for the whole array of final goods, into an integrated system of objective exchange ratios for the myriads of original and intermediate factors of production. It is the elements of this coordinated structure of monetary price appraisements for resources in conjunction with appraised future prices of consumer goods which serve as the data in the entrepreneurial profit computations that must underlie a rational allocation of resources.”<sup>4</sup>

But what is actually happening in this “transformation process” whereby the “incommensurable subjective valuations” of individuals purportedly come to be expressed as objective exchange ratios or prices? Do the latter in fact actually capture the former? There is a kernel of truth in the claim that they do in that obviously if someone is willing to pay a price for a good he or she must *ipso facto* subjectively value that good. Otherwise the “willingness to pay” for it would not have arisen. But, of course, in a market economy mere “willingness to pay” is not enough; the means of payment – purchasing power- is what is crucially required and it is only willingness to pay that is backed up by purchasing power that actually affects prices. This is what economists call “effective demand” (presumably to be distinguished from “ineffective demand”). The subjective valuation that a pauper places on a square meal may be considerable but in the absence of the wherewithal to pay for such a meal, this counts for nothing. In short, the subjective valuations individuals place on goods cannot reasonably be said to be captured or embodied by the objective prices such goods attract in the market. Indeed, one might add that to suggest that they do, flatly contradicts a key myth of bourgeois economics – namely, that our wants are essentially “infinite” and the resources to meet them, limited.

It may be objected that while it does not aim to “quantify” our wants as such (along a cardinal scale), price does nevertheless reflect our subjective valuations insofar as it sheds light on our preferences (along an ordinal scale). Thus, if we prefer roast beef to a McDonald’s hamburger this will be reflected in the higher price we would be willing to pay for such an item. However, this still does not get round the basic problem: in a market economy you cannot express a preference if you do not have the means to do so: purchasing power. You might prefer roast beef but after consulting your wallet may discover to your consternation that you will just have to resign yourself to the hamburger instead. While, according to conventional economics, effective demand determines price in conjunction with supply of the goods demanded, this effective demand is itself grossly unequally distributed by virtue of the unequal distribution of income. Austrians respond to this by arguing that such differentials reflect the valuations individuals place on different occupations and the different contributions they make to society (which “society” duly “rewards” them for) but there is no way of testing this claim since such valuations are themselves subject to the limitations of “effective demand”. Salerno’s “integrated system of objective exchange ratios” (prices) reflects or is conditioned by, this unequal distribution of effective demand. Thus, frivolous luxury goods can be “valued” more highly – i.e., attract a higher price – than food for the hungry because a rich elite has vastly more purchasing power at its disposal to competitively bid for, and so push up the price of, the former compared to the latter.

We should bear these points in mind in considering the merits or otherwise of the ECA; it is based on so-called objective data that are fundamentally biased or skewed and cannot be said to correspond truthfully to the subjective valuations of economic actors in the market as claimed. To believe otherwise is to commit what is called the Fallacy of Composition – the illusion that what is true for each part of a whole must be true for the whole. It is an error that overlooks the interrelationships between the different parts of the whole.

B) What do we mean by “costs”?

D R Steele contends: “The total cost of producing anything is the total effect in reducing production of other things because of the factors used up. This what we mean by the ‘cost of production’. It is this that we always want to minimise when we produce anything”<sup>5</sup>. As we saw earlier, this definition of cost equates with opportunity cost. Opportunity costs are often counter-posed to accounting costs. The latter are usually taken to denote the explicit costs represented by the cash outlays that a firm makes in purchasing its inputs, whereas the former are associated with implicit or hidden costs and may be difficult or impossible to quantify, or even be completely unknown. For example, the opportunity cost of spending more money on a new school may be to forego spending

this money on improving the local ambulance service which could have meant more lives being saved. But just how do you weigh up the cost of a life?

Going back to our example of consumer good X, we can see that the ECA relies on the notion of accounting cost rather than opportunity cost, despite its copious lip service to the latter. This is because it involves comparing the explicit cash outlays to be made on different combinations of A and B to arrive at a notional "least cost combination". Certainly there is an opportunity cost in making that decision – this almost goes without saying – but this is not what this example of economic calculation is about. It is not measuring what a factory foregoes in opting to produce 1 unit of Y using method 2. Choosing a least cost combination of factors has essentially to do with accounting costs, not opportunity costs. That being so, one might well ask, how does this help one to calculate the "total effect in reducing production of other things because of the factors used up"? Acknowledging there is, theoretically speaking, a "total effect" is not the same as saying that this is what is being precisely measured – or, indeed, that it can ever be precisely measured. Moreover, who decides which is the "best alternative foregone"? One person's preference may not be another's. Such considerations are simply brushed under the carpet by the ECA.

Nevertheless, it is on the point of "precise measurement" that the ECA presses its claim. As Steele points out: "In this case, it so happens that it would be sufficient merely to know which was 'more' or 'less' but that is just an accident of the way I have set up the example. Generally, we should have to know exactly how much more or less. For instance, if the choice were between a method using 4lbs of rubber and 5 pounds of wood and a method using 5 lbs of rubber and 3 pounds of wood, it would not be enough to know that wood were more costly by weight, then rubber; we should need to know how much more costly"<sup>6</sup>.

Certainly, accounting costs are amenable to "exact calculation" using monetary prices but the question is what exactly is being accounted for in the process?. "Precise measurements" doesn't tell us much; a game of monopoly entails precise measurement too but nobody suggests this implies some earth-shattering insight we would be foolish to overlook. What then is the significance of what is being precisely measured using monetary prices?

The ECA asserts that a socialist economy would be unable rationally to chose between different combinations of factors to arrive at a least cost combination. In answer to the obvious retort that a socialist economy would not concern itself with costs in this monetary form, it might be contended that there will still be a need to reckon costs in some other guise and that it is precisely these substantive costs – or if you like, "real world" costs – that the price mechanism is able faithfully to represent via its pattern of objective exchange ratios. But how could this be proven.? To prove this is the case one would have to demonstrate a precise correlation between these "substantive costs" and their monetary representations. One can determine whether such a correlation exists only by measuring one against the other. But that presents a problem for the ECA since, in doing this, one would have inadvertently shown that costs can indeed be independently measured, and rendered calculable, without recourse to market prices.

This places the proponents of the ECA in a invidious position since failure to demonstrate a putative correlation between these substantive costs and their alleged market representations means that all they have to fall back on is a tautology: that only a market economy is able to perform economic calculations couched in market prices. Steele himself has attempted to circumvent this argument with the (specious) claim that it is "parallel to arguments which have frequently been levelled against general theories. Thus every year or so some new genius discovers that Darwin's theory of natural selection is vacuous, because it says that the fit survive, but there is no way to measure who are fit except by seeing who survive"<sup>7</sup>. But, of course, the analogy is completely inapt; the relationship between "fitness" and "survival" is a causal one which simply does not apply

in this case. What is involved here is nothing quite so grand as a "general theory" but a modest proposition concerning the alleged statistical correlation between two sets of data without causation being invoked in any way.

Finally, if the ECA is really about narrow accounting costs rather than opportunity costs as such then presumably we have a solid basis for testing the proposition that a system of market prices can faithfully calculate the costs incurred in production decisions. Here we are referring to "costs" in their positive sense, not opportunities foregone. It is evident that in this sense, market-based calculations are far from adequate. There is an enormous literature on the problem of externalities and spill-over effects which illustrates this point very well. Suffice to say that in a competitive market economy there will always be an obvious in-built incentive for competing firms to externalise their costs as far as practically possible or to the extent to which they can get away with doing this. Pollution costs are one example of this and typically necessitate some intervention by the state to impose curbs on the offending firm in question in the interests of other firms who may have to indirectly pick up the tab. "Social costs" are another example. A firm may consider it necessary to lay off part of its workforce to reduce its production costs and remain competitive. However, this reduction of its labour costs has costly repercussions for the workers involved and society in general which tend not to be accounted for on the firm's own balance sheet.

Attempts to get round the problem of externalities and spill-over effects through the application of concepts such "willingness-to-pay" (WTP) and "willingness-to-accept" (WTA) are problematic and provide little, if any, comfort for proponents of the ECA. WTP has to do with what people would be prepared to pay to mitigate or avert some undesirable effect while WTA refers to the level of financial compensation they would be willing to receive for having to put up with such an effect. Mainstream economists tend to regard the costs involved in both instances as roughly equivalent but there is considerable evidence based on surveys to suggest that this is simply not the case – not according to people's "subjective evaluations" of environmental losses and gains, at any rate.<sup>8</sup> In fact, environmental losses tend to be more highly valued than environmental gains even where similar sums of money are involved. There are a number of other problems associated with these techniques (e.g. the tendency to underestimate the value of future resources; the problem of non-use values and option values which are to do with resources that you do not yourself make use of or might only do so at a later date) all of which highlight the shortcomings of market valuations, shortcomings which the ECA tends to gloss over.

### C) The problem of "net income"

According to the ECA not only is there a need to discover the least cost combinations of inputs required to produce a given good; there is also a need to ensure that the revenue obtained from the sale of this good is sufficient to cover the cost of producing it. This can only be done by attaching prices to a firm's inputs (A and B in our example) as well as its output (good X).

"Net income" is the difference between a firm's revenue or proceeds and its costs. Positive net income is what is usually referred to as profit; negative net income, as loss. As Mises put it, "Every single step of entrepreneurial activities is subject to scrutiny by monetary calculation. The premeditation of planned action becomes commercial pre-calculation of expected costs and expected proceeds. The retrospective establishment of the outcome of past action becomes accounting profits and losses"<sup>9</sup>.

This statement is revealing. It inadvertently highlights a serious flaw in the ECA. The ability to compute profit and loss is what in theory is supposed to ensure the efficient – that is "profitable" – allocation of resources. But it turns out that it ensures nothing of the sort. Just because a system of market prices affords one a set of figures with which one can perform precise calculations does not

mean that these figures will turn out to be correct – that is to say, will unerringly guide the entrepreneur towards a positive net income.

As Steele puts it: “Since all production decisions are about the future and the future is always uncertain, decision makers have to make guesses, take gambles, play hunches and follow their experienced noses.”<sup>10</sup> and “In the market, entrepreneurs anticipate, speculate, agonise, guess and take risks. They also frequently perform elaborate calculations, aware that the results of such calculations are only as good as their assumptions. Always enveloped in a cloud of ignorance, market decision-makers strain to discern the indefinite contours of the changing shapes that loom ambiguously out of the fog.”<sup>11</sup>

This seems unambiguous enough but then, curiously, Steele feels prompted to ask: “Does the fact that production is actually guided by estimates of future prices, and not by reading off ‘current’ (recent) prices, destroy the force of the Mises argument? Apparently not, for two reasons: 1. past prices are a guide which helps people to make more accurate (though still fallible) estimates of future prices; and 2. people’s estimates of future prices are eventually confirmed or refuted. There is an objective test of the accuracy of the estimates: profit and loss.”<sup>12</sup>

Steele’s first point rather undercuts his previous claim that production cannot actually be guided by current (recent) prices and he does not quite seem able to make up his mind on how relevant the latter are. By his own admission, entrepreneurs can and often do get things spectacularly wrong when relying on current /recent prices – the energy crisis of the 1970s being a case in point. It is also to be noted that these current/recent prices are a record of accounting costs, not opportunity costs, and so do not shed much light on the opportunities foregone in making a production decision since the latter are a “tacit reference to hypothetical future income”<sup>13</sup> which can only be guessed at. He admits that entrepreneurs are fallible yet does not seem to see the inconsistency in admitting this and claiming that the price system ensures “exact calculation”.

Steele’s second point – that there is an objective test of the accuracy of entrepreneurial estimates – is presumably the more important one but, even so, holds no water. Remember that what we are looking for is some way of reliably guiding the entrepreneur to make sound production decisions concerning net income in the future – otherwise there would be little point in going on about the need for “exact calculation”. The fact that the market process is retrospectively “self-correcting” in eliminating or bankrupting those firms that err (incur an economic loss) in their future estimates is completely irrelevant. The resource allocations these firms committed themselves to constitute what economists call “sunk costs” and cannot be retrieved once made. Bygones, as the saying goes, are bygones. More importantly, there is no guarantee that those entrepreneurs, having had the good fortune to estimate future prices accurately, will continue to do so. We are emphatically not talking about some selective process at work here which incrementally refines the abilities of entrepreneurs generally to make sound economic judgements which Steele seems to be implying. If this were the case then the history of the market economy would manifest itself as a progressive reduction in uncertainty and risk.

On another matter, when Steele refers to profit and loss as an objective test of the accuracy of estimates of future prices one presumes he is using “profit” here to mean accounting profit or net income. However, this is a little confusing. This is because he also uses the term “profit” in another, more specialised, sense as well. The entrepreneur’s return on her capital, he contends, is called “interest” (or what we would normally called profit) and where this is equal to her accounting profits “there is no profit in the strict economic sense. True profit is a return above interest; loss, a return below interest”<sup>14</sup>. The irony is that such profit can only arise where the economy departs from the abstract model of perfect competition and optimal resource allocation. As Lachmann observes “profits are earned whenever there are price-cost differences; they are thus a typical

disequilibrium phenomenon"<sup>15</sup>. Thus, according to the free marketeers' own theory of how the market behaves, the very imperfections which they deplore (such as monopolistic tendencies) "are, in fact, key profit-generating dynamics in the economic system. In other words, market imperfections are the main source of profit in the economy"<sup>16</sup>. Such profit, as Steele points out, is the result of the entrepreneur outguessing the market and benefiting society in the process. Presumably, such benefits would not be forthcoming in the idealised (and completely unrealistic) competitive model of the free market which free marketeers strive to realise and that what is needed instead is a less competitive model in which price distortions are allowed more free play. But that, of course, undermines an important assumption of the ECA about the need for market forces to be given free rein in order to ensure the "accuracy" of market prices.

According to the ECA, in the absence of market prices that allow entrepreneurs to make profit and loss computations, economic efficiency cannot be assured. This, it is argued, is incompatible with the maintenance of a developed economic infrastructure. However, we have seen just how problematic such profit and loss computations are in the real world despite the evidence of a developed economic infrastructure around us (which the proponents of the ECA themselves delight in pointing out and attributing to the market). This suggests that there must be something seriously awry with the theory itself.

In any event, the claim that a socialist economy would need to be able to calculate "net income" in some sense does not stand up to close scrutiny. The notion of "net income" in fact derives purely from the functional requirement of capitalism to realise profit through market exchange – that is, it is system-specific. Certainly, this requires inputs and outputs to be reduced to a common denominator – to facilitate comparison and thereby ensure that when one commodity is exchanged for another, they are equivalent to each other. Indeed, market transactions necessitate such equivalence. However, it does not follow that this kind of comparison making use of a common denominator would be required in a socialist economy. In such an economy, "economic exchange" of any sort would no longer apply. It would not be necessary to determine whether "more" or "less" wealth in general was being created than was being used up in the production of that wealth for the very simple reason that the concept of wealth "in general", a completely abstract and crudely aggregated notion of wealth, is of no practical use in itself and would be utterly meaningless outside the context of commodity exchange. This emphatically does not mean that a socialist economy will have no way of ensuring that resources would be efficiently allocated (which I will consider later); it simply means that such an economy does not need to operationalise this wholly unsatisfactory notion of "net income" in order to achieve this efficient allocation.

#### D) Estimating the negative effects of misallocation

Mises was clearly adamant that socialism could not be realised because it lacked any method of rational calculation. The implication of such a claim is that the effect of not having such a method would be so devastating as to prevent socialism from ever being realised. However, as Bryan Caplan points out, this flatly contradicts Mises' own opinion that "economic theory gives only qualitative, not quantitative laws"<sup>17</sup>. According to Mises in *Human Action* (quoted in Caplan), "economics is not, as ignorant positivists repeat again and again, backward because it is not quantitative. It is not quantitative because there are no constants". But if that is the case, how could you quantify the negative effects of this supposed misallocation in a hypothetical socialist economy and come to the conclusion that they were so severe as to make socialism infeasible?

The Misesian argument would appear to rest on the claim that while there is only a finite number of options concerning the use of inputs that would lead to their efficient allocation, whereas there is an infinity of options that would result in those same inputs being misallocated. The chances are that without the means of making economic calculations, decision-makers in a socialist economy would

chose one of the latter options. As Mises put it, economic calculation “provides a guide amid the bewildering throng of economic possibilities. It enables us to extend judgements of value which apply directly only to consumption goods – or at best to production goods of the lowest order – to all goods of higher orders. Without it, all production by lengthy and roundabout processes would be so many steps in the dark ... And then we have a socialist community which must cross the whole ocean of possible and imaginable economic permutations without the compass of economic calculation”<sup>18</sup>.

However, as we shall see later, a socialist economy would be quite capable of avoiding this fate through the institutionalisation of a set of constraints that steer decision makers towards the efficient allocation of resources. In any case, Mises’ claim about the lack of a reliable compass to guide these decision makers might as well be directed at market capitalism. This is what can be inferred from the Theory of The Second Best formulated Richard Lipsey and Kelvin Lancaster in 1956<sup>19</sup>. Looking at the “general equilibrium” model of the economy, they argued that in order for equilibrium (pareto optimal allocation) to obtain a number of equilibrium conditions need to be simultaneously satisfied such as the supply of all goods being exactly equal to the demand for them, the output price of goods being equal to marginal cost of producing them and the long term profit for all firms being equal to zero. Where just one of these optimal conditions is not met then the ‘second best’ position can only be reached by departing from all the other Paretian conditions. To put it in a nutshell, any single price distortion leads to all other prices being distorted because of its ramifying consequences for exchange ratios throughout the economy and since price distortions are inevitably going to arise in the market, capitalist decision makers will likewise have to contend with whole ocean of possible and imaginable economic permutations in which their ability to perform precise calculations using market prices will be to little avail. This is because such prices, being distorted as it were, will almost by definition be unable to provide a reliable guide (in terms of price theory). Of course the notion of a “general equilibrium” is merely an abstraction and has no empirical basis in fact. While Mises acknowledged this he did not seem to perceive the devastating consequences that this had for his own theory of “economic calculation”.

The implication of Mises’ argument is that the more scope one allows for the free interplay of market forces the more efficient and reliable the allocation process. Can this claim be empirically tested? It is often argued for example that so-called free market economies perform better than their more interventionist, state capitalist, competitors. But this can be for any number of reasons other than “economic calculation”: differences in natural and labour resource endowments, the prevalence of natural disasters, historical circumstances (e.g. civil conflict), the incentive problem in oppressive regimes (a point that Caplan makes) and economic dependence (a reference to “dependency theory” and the argument that the already developed First World systematically “under-develops” the Third World). There is a further problem of disentangling cause and effect. For example, is it the case that relatively successful economies are successful as a result of implementing free market policies or are those policies themselves the result of economic success? Those economies that are more competitive are likely to be more favourably disposed towards free trade for the obvious reason that they have little to fear from competition, whereas, conversely, less competitive or economically successful economies will tend to want to adopt a more protective and interventionist approach to protect their own interests. Indeed this is what enabled Germany, at the end of the 19th century to overtake Britain in terms of industrial production: Whereas the latter was still relatively laissez-faire in its outlook, Germany and other continental economies at the time relied heavily on tariffs and other interventionist measures to build up their industries.

Empirical support for the economic calculation thesis is thus remarkably weak. In any case, there is not, never has been and never will be such a thing as a strictly “free market” economy in the real world. In the real world, the market necessarily operates closely in tandem with the capitalist state, varying only in the degree to which this happens. As Karl Polanyi has noted: “The road to the free

market was opened up and kept open by an enormous increase in continuous, centrally organised and controlled intervention”<sup>20</sup>.

#### E) The costs of economic calculation

What is often overlooked is that accounting, while it might concern itself with cutting costs, is itself a significant cost. This has important implications for the ECA. Parallel to a system of physical accounting (see section 5) what we have today as well is a system of monetary accounting. Monetary accounting is a highly complex process in which all enterprises in a capitalist economy must of necessity engage, even though it plays a supernumerary role as far as the physical process of organising production is concerned. In earlier class-based social formations money played a secondary role in the economic life of society; in modern capitalism, however, its influence is all-pervasive. Its purpose is not to ensure the efficient allocation of resources as such but to expedite market exchanges by providing a universal equivalent against which all other commodities exchange, so enabling the computation of profits and losses by competing actors engaged in these market exchanges. That is why it eventually supplanted the traditional system of barter – because of the obvious structural shortcomings of the latter which impeded market exchanges. For example, you cannot swap your pig for two chickens from your neighbour if he or she already has an ample supply of pigs; paying your neighbour in cash overcomes this problem.

As well as enjoining economic actors to engage in monetary accounting, the development of capitalism gave rise to a whole plethora of institutions and economic activities directly or indirectly concerned with the handling and circulation of money rather than the production of use values as such – for example, banks, insurance companies, pay departments, building societies and so on. Indeed, this already vast and steadily proliferating sector of the economy is a natural outgrowth of the systemic needs of an economic system centred on the competitive accumulation of capital; such institutions and activities arose precisely to service those needs. One might want to argue that a bank, for example, performs a useful role in that it lends money to a factory and thus enables the latter to manufacture useful things that consumers in a market economy may value. Therefore, banks perform no less a useful role than factories in the production of these useful things. But this is to engage in a sleight of hand; it is to overlook the distinction that needs to be made between the specific conditions under which a factory has to operate within a given socio-economic system and the physical process of production itself. It is the former that is precisely being questioned which proponents of the ECA, on the other hand, take wholly for granted and assume is seamlessly linked to the latter. That is to say, they assume what they need to prove: that you cannot operate a modern system of production without market prices (and hence those kind of institutions – like banks – linked with market exchanges in capitalism).

It is the elimination of such activities and institutions, essential though they may be to a functioning market economy but unproductive in themselves from the standpoint of producing use values or meeting human needs, that constitutes perhaps the most important (but by no means only), productive advantage that a socialist economy would have over a capitalist economy. The elimination of this structural waste intrinsic to capitalism will free up a vast amount of labour and materials for socially useful production in socialism. Just how much resources will be made available for socially useful production in this way is a moot point. Most estimates suggest at least a doubling of available resources by comparison with the present.<sup>21</sup> Yet the proponents of the ECA, while claiming that socialism would sink into the slough of inefficiency and falling output without the guidance of market prices, seem wilfully determined to deny socialism this particular productive advantage that it has over capitalism by positing the necessity for institutions such as banks – or some analogue of banking – in a socialist economy. This is a specious claim; it is unwittingly reading into socialism the functional requirements of capitalism.

#### 4 SOCIALISM AND THE RED HERRING OF CENTRAL PLANNING

One of the sacred cows of the Left is the idea of a "planned economy". This can be quite misleading. Given the Left's traditional hostility towards the "free market", this may convey the impression that the free market is somehow antithetical to "planning". But this is not the case at all. The free market is replete with plans of every kind. The difference is that the interconnections or interrelationships between these myriad plans are unplanned, spontaneous and anarchic.

"Central planning" is the proposal to eliminate altogether this unplanned spontaneity by assimilating these different plans into a single society-wide plan. For free market critics of socialism like Mises and Hayek, it is taken for granted that a socialist economy would be a centrally planned economy in this sense of the term. It is argued that this central direction of economic activity would necessarily go hand in hand with a command structure (what Mises called the "Fuhrer principle") to ensure production targets are met in accordance with the central plan and without any deviations that would threaten the coherency of the plan. The ineluctable consequences that flow from this are that a socialist economy could not be run democratically, that centralised rationing would have to replace free access and that voluntary labour would have to give way to coerced labour. In short, we would no longer be talking about "communism" or "socialism" as these terms were traditionally conceived by individuals like Marx, Engels, Morris and Kropotkin.

It is beyond the scope of this article to consider in detail the problematic nature of this particular notion of "central planning". Suffice to say, it would be logistically impossible to collate together all the dispersed information concerning the supply and demand for every conceivable kind of production good or consumer good throughout the economy. In theory, that would entail constructing a stupendously complicated and labyrinthine input-output matrix to accommodate all this information but, even then, unforeseen changes such as natural disasters or population movements would seriously disrupt the input-output ratios with ramifications that would spread uncontrollably to every other area of the economy. This would necessitate a reformulation of the plan *in toto*. Since change is an endemic fact of life, it follows that the plan would never have the opportunity to be put into effect; it would be constantly confined to the drawing board assuming a big enough drawing board could be found for this purpose. While this does not strictly touch on the ECA as such, it can be seen as a supplementary argument to demonstrate the impossibility of socialism (or communism) as a form of economic organisation. Indeed this explains why critics of socialism so often maintain that the abandonment of a price mechanism could only really work at the level of a "Robinson Crusoe" economy; given the complexity of modern production, it is impossible for any single mind – like Crusoe's – to grasp the totality of the interconnections this entails.

Is the assumption that a communist or socialist economy would entail centralised or society-wide planning a reasonable one to make? It might if it could be shown that is what was being advocated by supporters of such an economy. Steele is unequivocal in thinking this is the case. He cites Marx's and Engels' objections to the anarchy of capitalist production and the allocation of resources "behinds the backs of the producers" as well their advocacy of "conscious social control" and the implementation of a "definite social plan"<sup>22</sup>. It may seem a reasonable inference from such language that what Marx and Engels had in mind was indeed the kind of society-wide – or central – planning, to which Steele refers.

However, as Steele himself acknowledges, the word "plan" has many shades of meaning<sup>23</sup>; it could embody just a set of intentions or it could embrace also the means to execute these intentions. Some of the points that Steele makes flatly contradict his claim that Marx and Engels stood unequivocally

for central planning. Thus, he acknowledges that "Marx sees the communist administration as a federation of self-governing groups largely concerned with their internal affairs and collaborating for the comparatively few purposes that concern all the groups"<sup>24</sup>. This vision of communism is unquestionably incompatible with Steele's version of "central planning".

The reference to "anarchy of production" is highly misleading and it does seem very much that Steele has got the wrong end of the stick in assuming that Marx and Engels implied by this the desire to replace a situation in which you had a myriad of plans (and the unplanned interconnections between them) with a single society-wide plan where the total pattern of production is planned. On the contrary, it seems more reasonable to assume that by "anarchy of production", Marx and Engels were referring to the blind ungovernable economic laws of capitalism which intercede in human affairs and get in the way of conscious human intentions. Often this phrase is linked in their writings to the capitalist trade cycle which is a particularly apt manifestation of those ungovernable laws. Here you have a perverse situation of "overproduction" alongside increased misery and want. What could better convey the idea of subjective intentions being wilfully denied and flouted by forces operating beyond the control of those very intentions?

Further evidence in support of this interpretation of "anarchy of production" is provided by Engels' claim in *Socialism: Utopian and Scientific* that anarchy in capitalism grows to a "greater and greater height". This is an allusion to the increasing severity of economic crises he imagined would occur in capitalism. Whether or not he was correct in supposing this is besides the point. Steele maintains that Marx and Engels subscribed to the idea that there was an inherent tendency in capitalism towards centralisation and concentration – in other words a gradual diminution in the area of unplanned spontaneity existing between competing units by virtue of the decline in the number of such units competing in the market. Strictly speaking, this would imply less "anarchy" on Steele's interpretation of the word but as we see in Engels' case, such anarchy is likely to grow to a "greater and greater height". Clearly this directly contradicts Steele's claim that "For Marx, anarchy of production is not an emergent quality of the market. The market does not cause anarchy of production. Anarchy of production causes the market."<sup>25</sup>

But even if Marx and Engels were advocates of central planning, that does not mean that every socialist or communist must necessarily follow suit. What of those who clearly do not advocate central planning and, indeed, explicitly reject the idea? Insofar as they embrace a vision of a future society which entails a multitude of interacting plans and significant decentralisation, this may be said to conform to Steele's notion of "anarchy of production". The question is, does such anarchy of production necessarily "cause the market" as he provocatively contends?

Steele has little to say on the subject and other attempts to deal with concept of relatively decentralised non-market economy – such as Kevin McFarlane's tract, *Real Socialism wouldn't work either* (*Libertarian Alliance* 1992 Economic notes no.46 ) have been theoretically slight or plainly misconceived. Such is the grip of central planning on the thinking of free market critics of socialism that they find it difficult to envisage it being organised on any other basis.

As I suggested earlier, this has profound repercussions for the discussion on economic calculation. It is not that the ECA necessarily implies or, in itself, relies on a vision of socialism entailing central planning. However, insofar as supporters of the ECA do hold such a vision, it is precisely this, I will argue, that prevents them from coming to recognise an effective response to the ECA. That is predicated on a solution that necessitates a vision of socialism that, on the contrary, is relatively decentralised and spontaneously ordered. It is to just such a vision that we now finally turn.

## 5. ANATOMY OF A SOCIALIST ECONOMY

By "socialism" or "communism", as we saw earlier, was traditionally meant a society without markets, money, wage labour or a state. All wealth would be produced on a strictly voluntary basis. Goods and services would be provided directly for self determined need and not for sale on a market; they would be made freely available for individuals to take without requiring these individuals to offer something in direct exchange. The sense of mutual obligations and the realisation of universal interdependency arising from this would profoundly colour people's perceptions and influence their behaviour in such a society. We may thus characterise such a society as being built around a moral economy and a system of generalised reciprocity.

Free access to goods and services is a corollary of socialism's common ownership of the means of production; where you have economic exchange you must logically have private or sectional ownership of those means of production. Free access to goods and services denies to any group or individuals the political leverage with which to dominate others (a feature intrinsic to all private-property or class based systems). This will work to ensure that a socialist society is run on the basis of democratic consensus. Decisions will be made at different levels of organisation: global, regional and local with the bulk of decision-making being made at the local level.<sup>26</sup> In this sense, a socialist economy would be a polycentric, not a centrally planned, economy.

Over and above these broad defining features of a socialist economy one can identify a number of derivative or secondary features which interact with each other in coherent fashion and have particular relevance to the question of resource allocation. As with consumption goods, production goods would be freely distributed between production units without economic exchange mediating in this process. We can list these various interlocking secondary features of a socialist economy as follows:

### A) Calculation in kind

Calculation in kind entails the counting or measurement of physical quantities of different kinds of factors of production. There is no general unit of accounting involved in this process such as money or labour hours or energy units. In fact, every conceivable kind of economic system has to rely on calculation in kind, including capitalism. Without it, the physical organisation of production (e.g. maintaining inventories) would be literally impossible. But where capitalism relies on monetary accounting as well as calculation in kind, socialism relies solely on the latter. This is one reason why socialism holds a decisive productive advantage over capitalism; by eliminating the need to tie up vast quantities of resources and labour implicated in a system of monetary accounting.

A criticism of calculation in kind is that it does not permit decision makers to compare the total costs of alternative aggregates of bundles of production factors to arrive at a "least cost" combination. This as we saw earlier, is based on a complete misunderstanding. In a socialist economy there will be no need to perform such an operation. However this does not mean that it will not be possible to compare alternative bundles of factors – like methods 1, 2 and 3 in our example – on some other basis and arrive at a decision as to which is the most efficient to use as we shall see later.

Possibly the most prominent advocate of calculation in kind was Otto Neurath. Neurath wrote up a report to the Munich Workers Council in 1919 entitled "Through War Economy to Economy in Kind" which Mises later attacked. In this report, Neurath argued that the Germany's war economy had demonstrated the possibility of dispensing with monetary calculation altogether. However his position at the time was somewhat weakened by virtue of the fact that he also subscribed to a

system of central planning. This made him vulnerable to the Misesian arguments against central planning about the problems of collating the dispersed information of economic actors in an economy. Neurath in later life moved away from a centrally planned conception of socialism and developed instead an "associational conception of socialism" which entailed a "decentralised and participatory account of socialist planning".<sup>27</sup>

In his debate with Mises, Neurath was scathing in his criticism of the "pseudorationalism" employed by Mises and the mistaken assumption that rational decisions require commensurability of different values<sup>28</sup>. This, as O'Neill points out, reduced decision making to a "purely technical procedure" which left out "ethical and political judgement" (as we saw in our discussion of externalities). One of the advantages of a system of calculation in kind is that it opens up the possibility of a much more rounded and nuanced approach to decision-making and gives more weight to factors such as environmental concerns often overlooked in market calculations.

#### B) A self-regulating system of stock control

The problem with a centrally-planned model of socialism is *inter alia* its inability to cope with change. It lacks any kind of feedback mechanism which allows for mutual adjustments between the different actors in such an economy. It is completely inflexible in this regard. A decentralised or polycentric version of socialism, on the other hand, overcomes these difficulties. It facilitates the generation of information concerning the supply and demand for production and consumption goods through the economy via a distributed information (and today, largely computerised) network in a way that was possibly unimaginable when Marx was alive or when Mises first wrote his tract on economic calculation. This information, as we shall see, would play a vital role in the process of efficient resource allocation in a socialist economy.

Stock or inventory control systems employing calculation in kind are, as was suggested earlier, absolutely indispensable to any kind of modern production system. While it is true that they operate within a price environment today, that is not the same thing as saying they need such an environment in order to operate. The key to good stock management is the stock turnover rate – how rapidly stock is removed from the shelves – and the point at which it may need to be re-ordered. This will also be affected by considerations such as lead times – how long it takes for fresh stock to arrive – and the need to anticipate possible changes in demand. These are considerations that do not depend on the existence of a market economy at all. Interestingly, Marx wrote in *Capital* Vol. II of the need for a socialist economy to provide a buffer of stock as a safeguard against fluctuations in demand.

A typical sequence of information flows in a socialist economy might be as follows. Assume a distribution point (shop) stocks a certain consumer good – say, tins of baked beans. From past experience it knows that it will need to re-order approximately 1000 tins from its suppliers at the start of every month or, by the end of the month, supplies will be low. Assume that, for whatever reason, the rate of stock turnover increases sharply to say 2000 tins per month. This will require either more frequent deliveries or, alternatively, larger deliveries. Possibly the capacity of the distribution point may not be large enough to accommodate the extra quantity of tins required in which case it will have to opt for more frequent deliveries. It could also add to its storage capacity but this would probably take a bit more time. In any event, this information will be communicated to its suppliers. These suppliers, in turn, may require additional tin plate (steel sheet coated with tin), to make cans or beans to be processed and this information can similarly be communicated in the form of new orders to suppliers of those items further down the production chain. And so on and so forth. The whole process is, to a large extent, automatic – or self regulating – being driven by dispersed information signals from producers and consumers concerning the supply and demand for goods and, as such, is far removed from the gross caricature of a centrally planned economy.

It may be argued that this overlooks the problem of opportunity costs which lies at the heart of the ECA. For example, if the supplier of baked beans orders more tin plate from the manufacturers of tin plate then that will mean other uses for this material being deprived by that amount. However, it must be born in mind in the first place that the systematic overproduction of goods that Marx talked of – i.e. buffer stock – applies to all goods, consumption goods as well as production goods. So increased demand from one consumer/producer, need not necessarily entail a cut in supply to another – or at least, not immediately. The existence of buffer stocks provides for a period of re-adjustment. This brings us neatly to our second point – namely that this argument overlooks the possibility of there being alternative suppliers of this material or indeed, for that matter, more readily available substitutes for containers (say, plastic). Thirdly, and most importantly, as we shall see, even if we assume a worse case scenario – that we face a stark choice between having more tins of baked beans and less of something else by virtue of diverting supplies of tins to the manufacture of additional tins – there is still a way of arriving at a sensible decision that would ensure the most economically efficient allocation of resources under these constrained circumstances.

### C) The Law of the Minimum

The “law of the minimum” was formulated by an agricultural chemist, Justus von Liebig in the 19th century. What it states is that plant growth is controlled not by the total amount of resources available to a plant but by the particular factor that is scarcest. This factor is called the limiting factor. It is only by increasing the supply of the limiting factor in question – say, nitrogen fertiliser or water in an arid environment – that you promote plant growth. This however will inevitably lead to some other factor assuming the role of limiting factor.

Liebig’s Law can be applied equally to the problem of resource allocation in any economy. Indeed Liebig’s dismissal of the claim that it is the total resources available to a plant that controls its growth finds an echo in the socialist dismissal of the claim that we need to compare the “total costs” of alternative bundles of factors. For any given bundle of factors required to produce a given good, one of these will be the limiting factor. That is to say, the output of this good will be restricted by the availability of the factor in question constituting the limiting factor. All things being equal, it makes sense from an economic point of view to economise most on those things that are scarcest and to make greatest use of those things that are abundant. Factors lying in between these two poles can be treated accordingly in relative terms.

To claim that all factors are scarce (because the use of any factor entails an opportunity cost) and, consequently, need to be economised is actually not a very sensible approach to adopt. Effective economisation of resources requires discrimination and selection; you cannot treat every factor equally – that is, as equally scarce – or, if you do, this will result in gross misallocation of resources and economic inefficiency. On what basis should one discriminate between factors? Essentially, the most sensible basis on which to make such a discrimination is the relative availability of different factors and this is precisely what the law of the minimum is all about.

Indeed one can go further. Because a socialist economy would to a large extent be a self-regulating economy involving a considerable degree of feedback and mutual adjustment, it would be driven willy-nilly in the direction of efficient allocation by the kind of constraints alluded to in Liebig’s law of the minimum. These supply constraints will operate inevitably in every sector of the economy and at every point along every production chain. When a particular factor is limited in relation to the multifarious demands placed on it, the only way in which it can be “inefficiently allocated” (although this is ultimately a value judgement) is in choosing “incorrectly” to which particular end use it should be allocated (a point we shall consider shortly). Beyond that, you cannot

misuse or misallocate a resource if it simply isn't available to misallocate (that is, where there are inadequate or no buffer stocks on the shelf, so to speak). Of necessity, one is compelled to seek out a more abundant alternative or substitute (which would be the sensible thing to do in this circumstance).

The relative availability of any factor is determined 1) by the crude supply of this factor vis-à-vis other factors in any aggregate of factors required to produce a given good, as revealed via the self-regulating system of stock control and 2) the technical ratio of all those factors in this aggregate, including our factor in question, required to produce this given good. This ratio tells us how much of each factor is needed which we can then be compared with the supply of each factor in order to arrive at some idea of the relative availability of the factor in question in relation to other factors.

Let's look at how this might work in practice. Let us say one unit of a given good Y can be produced using 3 units of factor M and 2 units of factor N. If there are 6 units of M and 6 units of N then we easily work which of these factors – M or N – is the limiting factor. In this case it is M because if 1 unit of Y can be produced using 3 units of M and there are only 6 units of M it follows that you can only produce 2 units of Y altogether (if you disregard N). On the other hand, if 1 unit of Y can be produced using 2 units of N and there are 6 units of N altogether this would allow us to produce 3 units of Y (if we disregard M). If the total demand for Y was only 2 units or less then we might not have much cause for concern. However if the demand was for more than 2 units of Y we might have to consider ways of increasing the supply of Y, for example by altering the technical mix of inputs so that it requires fewer units of M and more of N. In other words we would be reducing the supply constraints that M exerts in limiting the output of Y. Note that all of this is perfectly feasible without recourse to market prices whatsoever. Note also that it takes cognisance of, and puts into operation, the concept of opportunity costs with which the ECA is ostensibly concerned. Thus, if we decided to divert 4 units of N away from the production of Y to the production of another good – let us call it Z – then we know very well what we have foregone by thus cutting back on the supplies of N needed to produce Y. The 2 units of N that we are left with after the other 4 have been diverted to Z will only suffice for the production of 1 unit of Y. Whereas before we could produce 2 units of Y where M was the limiting factor diverting 4 units of N to Z would mean, in effect, that N would replace M as the limiting factor in producing Y and that the opportunity costs of diverting 4 units of N to Z would amount to the loss of 1 unit of Y.

Slowly but ineluctably we are closing the net around the ECA. It remains for us to identify just one more of socialism's interlocking production features to close the circle completely.

#### D) A hierarchy of production priorities

In any economy there needs to be some way of prioritising production goals. In capitalism, as we have seen, this is done on the basis of purchasing power. From the standpoint of meeting human needs, however, this can be extraordinarily inefficient. The economist, Arthur Pigou argued in his influential work *Economics of Welfare* that it is "evident that any transference of income between a relatively rich man to a relatively poor man of similar temperament, since it enables more intense wants to be satisfied at the expense of less intense wants, must increase the aggregate sum of satisfactions."<sup>29</sup> Pigou's point is that the marginal utility of, say, a dollar to a poor man was worth much more than it was to a rich man. Thus society as a whole would benefit – that is, its total utility would be enhanced – were an income transfer to take place between the latter and the former. The problem is that this kind of income distribution, however much it makes for a palpably inefficient outcome is not only a consequence, but also a functional requirement, of a market economy. Indeed, this is a point which advocates of a free market economy themselves routinely make. Redistribution, they claim, is likely to undermine the very structure of incentives upon which a thriving economy depends.

It is this grossly unequal distribution of income or purchasing power which has become even more glaringly unequal in recent decades at both the national and global levels, which exerts such a profound effect on the whole pattern and composition of production today – and the consequent allocation of resources that underpins this. It is reflected in the kind of production priorities that manifest themselves around us: conspicuous consumption in the midst of the most abject poverty. Such consumption is the cornerstone of a system of status differentiation which, in turn, provides the ideological underpinnings of an accumulative capitalist dynamic. It is from such a dynamic that the myth of insatiable demand springs. The logic of economic competition expresses itself as an economic imperative that enjoins competing enterprises to seek out and stimulate market demand without limit. Increased consumption translates into increased status while, at the same time, conveniently affording those enterprises increased opportunities to realise profit.

As Thorstein Veblen suggested in his work *The Theory of the Leisure Class* (1925), within such a status hierarchy in which social esteem is closely related to an individual's "pecuniary strength" it is how those at the top of this hierarchy exercise their pecuniary strength that provides the key signifier of social esteem in this hierarchy. Hence the emphasis is on extravagant luxury which only the rich can really afford. But as Veblen shrewdly observes this does not prevent those lower down this hierarchy from imitating those higher up – even if this means the wasteful diversion of their limited incomes from meeting more pressing needs: "No class of society, not even the most abjectly poor, forgoes all customary conspicuous consumption. The last items of this category of consumption are not given up except under stress of the direst necessity. Very much of squalor and discomfort will be endured before the last trinket or the last pretence of pecuniary decency is put away."<sup>30</sup>

The irony is that even a modest redistribution of wealth, if it were possible, would significantly enhance the productive potential of hundreds of millions trapped in the mire of absolute poverty by improving their mental and physical capacities. To put it simply such inequality is not only morally offensive; it is also grossly inefficient.

In a "free access" socialist economy the notion of income or purchasing power would, of course, be devoid of meaning. So too would the notion of status based upon the conspicuous consumption of wealth. Because individuals would stand in equal relation to the means of production and have free access to the resultant goods and services, this would fundamentally alter the basis upon which society's scale of preferences was established. It would make for a much more democratic and consensual approach altogether and enable a system of values reflecting this approach to emerge and shape this agenda. It is perhaps this that really lies behind the notion of society wide planning – some co-ordinated and commonly agreed approach in setting society's priorities.

How might these priorities be determined? Here Maslow's "hierarchy of needs" springs very much to mind as a guide to action. It would seem reasonable to suppose that needs that were most pressing and upon which the satisfaction of others needs were contingent, would take priority over those other needs. We are talking here about our basic physiological needs for food, water, adequate sanitation and housing and so on. This would be reflected in the allocation of resources: high priority end goals would take precedence over low priority end goals where resources common to both are revealed (via the self regulating system of stock control) to be in short supply (that is, where the multifarious demands for such resources exceeds the supply of them). Buick and Crump speculate, not unreasonably, that some kind of "points system" might be used<sup>31</sup> with which to evaluate a range of different projects facing such a society. This will certainly provide useful information to guide decision makers in resource allocation where choices have to be made between competing end uses. But the precise mechanism(s) to be used is something that will have to be decided upon by a socialist society itself.

## CONCLUSION

We have seen that a socialist economy would need to have some system of production priorities and how this might be arrived at. We have seen how this would impact on the allocation of resources where the supply of such resources falls short of the demand for them. We have looked at the mechanism of a self-regulating system of stock control, using calculation in kind, which would enable us to keep track of this supply and demand. We have established that the need to economise on the allocation of resources is positively correlated with their relative scarcity and that that, in turn, is a function not only of crude supply as revealed via the self regulating system of stock control but is also a function of demand and of the technical ratios of inputs involved. Comparison of the relative scarcity of different inputs allows us to operationalise Liebig's law of the minimum. Having identified our limiting factors we can subject them to the guidance of our established system of production priorities to determine how they are to be allocated. In short, what we have finally arrived at is a coherent and functioning system of interlocking parts that at no point has need of economic calculation in the form of market prices whatsoever. What then remains of the Economic Calculation Argument? Based on a highly unrealistic set of assumptions about how a market economy actually operates in practice, it attacks what is clearly a gross caricature of a socialist economy which would be unworkable, in any case, on grounds other than that of economic calculation. In truth, the fortunes of the ECA were inextricably bound up with the rise of state capitalist alternatives to the so-called free market, parading as socialist economies, which were the real targets of its hostility. By that token, the historical relevance of the Misesian argument has disappeared along with the collapse of these self same state capitalist regimes.

*Robin Cox lives on the Sierra de la Contraviesa in southern Spain 'trying to be a peasant', and has an interest in environmental matters.*

<sup>1</sup> D R Steele, chapter 4 2, *From Marx to Mises: Post-capitalist society and the challenge of economic calculation* (Illinois; Open Court, 1992)

<sup>2</sup> J O'Neill, Nov/ Dec 1995 "In partial praise of a positivist: the work of Otto Neurath" , *Radical Philosophy* no 74; p.30 3)

<sup>3</sup> L von Mises, *Human Action: A Treatise on Economics* (Chicago: Henry Regnery, 1949), p.679

<sup>4</sup> J Salerno, 1994 "Reply to Leland B. Yeager on 'Mises and Hayek on Calculation and Knowledge'", *Review of Austrian Economics* 7 (2), pp 111–25.

<sup>5</sup> Steele, p.11

<sup>6</sup> Steele, p.10

<sup>7</sup> D.R.Steele, *Libertarian Student* vol. 3 no 1, [n.d.], p.7

<sup>8</sup> <http://www.projectcommunis.org/articles/000613.html>

<sup>9</sup> L von Mises, p. 229

<sup>10</sup> Steele, 1992, p.15

<sup>11</sup> Steele, p.169

<sup>12</sup> Steele, p.16

<sup>13</sup> Steele, p.169

<sup>14</sup> Steele, p.419

<sup>15</sup> L M Lachmann, *Macro-economic thinking and the Market Economy* (London: Institute of Economic Affairs,1973)

<sup>16</sup> D King, *The New Right: Politics, Markets and Citizenship* (London: Macmillan, 1987), p.80

<sup>17</sup> B Caplan, <http://www.gmu.edu/departments/economics/bcaplan/why.aust.htm>

<sup>18</sup> L von Mises, *Socialism: An Economic and Sociological Analysis* (Indianapolis: Liberty Fund, 1922), pp. 101, 105

<sup>19</sup> R G Lipsey and K Lancaster, "The General Theory of Second Best", *Review of Economic Studies*, vol. XXIV , Oct 1956 pp.11-32

<sup>20</sup> K Polanyi, *The Great Transformation* (Boston,1957), p.140

<sup>21</sup> K Smith K, *Free is Cheaper* (Gloucester: John Ball Press,1988)

<sup>22</sup> Steele, p.255-6

<sup>23</sup> Steele, p.256

<sup>24</sup> Steele, p.316

<sup>25</sup> Steele, p.50

<sup>26</sup> *Socialism as a Practical Alternative* (London, SPGB pamphlet, 1994)

<sup>27</sup> O' Neill, p.35

<sup>28</sup> O'Neill, p. 31

<sup>29</sup> quoted in M Lutz & K Lux, *Humanistic Economics: The New Challenge*; (New York: Bootstrap Press, 1988), p.132

<sup>30</sup> quoted in M J Lee (ed), *The Consumer Society Reader* (Oxford: Blackwell Publishing, 2000), p.39

<sup>31</sup> A Buick & J Crump, *State Capitalism: the Wages System under New Management* (New York: St Martins Press, 1986), p. 139