

# Economic Calculation from Mises's *Socialism*

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All human action, so far as it is rational, appears as the exchange of one condition for another. Men apply economic goods and personal time and labour in the direction which, under the given circumstances, promises the highest degree of satisfaction, and they forego the satisfaction of lesser needs so as to satisfy the more urgent needs. This is the essence of economic activity — the carrying out of acts of exchange.<sup>1,2</sup>

Every man who, in the course of economic activity, chooses between the satisfaction of two needs, only one of which can be satisfied, makes judgments of value. Such judgments concern firstly and directly the satisfactions themselves; it is only from these that they are reflected back upon goods. As a rule anyone in possession of his senses is able at once to evaluate goods which are ready for consumption. Under very simple conditions he should also have little difficulty in forming a judgment upon the relative significance to him of the factors of production. When, however, conditions are at all complicated, and the connection between things is harder to detect, we have to make more delicate computations if we are to evaluate such instruments. Isolated man can easily decide whether to extend his hunting or his cultivation. The processes of production he has to take into account are relatively short. The expenditure they demand and the product they afford can easily be perceived as a whole. But to choose whether we shall use a waterfall to produce electricity or extend coal-mining and better utilize the energy contained in coal, is quite another matter. Here the processes of production are so many and so long, the conditions necessary to the success of the undertaking so multitudinous, that we can never be content with vague ideas. To decide whether an undertaking is sound we must calculate carefully.

But computation demands units. And there can be no unit of the subjective use-value of commodities. Marginal utility provides no unit of value. The worth of two units of a given commodity is not twice as great as one — although it is necessarily greater or smaller than one. Judgments of value do not measure: they arrange, they grade.<sup>3</sup> If he relies only on subjective valuation, even isolated man cannot arrive at a decision based on more or less exact computations in cases where the solution is not immediately evident. To aid his calculations he must assume substitution relations between commodities. As a rule he will not be able to reduce all to a common unit. But he may succeed in reducing all elements in the computation to such commodities as he can evaluate immediately, that is to say, to goods ready for consumption and the disutility of labour and then he is able to base his decision upon this evidence. It is obvious that even this is possible

only in very simple cases. For complicated and long processes of production it would be quite out of the question.

In an exchange economy, the objective exchange value of commodities becomes the unit of calculation. This involves a threefold advantage. In the first place we are able to take as the basis of calculation the valuation of all individuals participating in trade. The subjective valuation of one individual is not directly comparable with the subjective valuation of others. It only becomes so as an exchange value arising from the interplay of the subjective valuations of all who take part in buying and selling. Secondly, calculations of this sort provide a control upon the appropriate use of the means of production. They enable those who desire to calculate the cost of complicated processes of production to see at once whether they are working as economically as others. If, under prevailing market prices, they cannot carry through the process at a profit, it is a clear proof that others are better able to turn to good account the instrumental goods in question. Finally, calculations based upon exchange values enable us to reduce values to a common unit. And since the higgling of the market establishes substitution relations between commodities, any commodity desired can be chosen for this purpose. In a money economy, money is the commodity chosen.

Money calculations have their limits. Money is neither a yardstick of value nor of prices. Money does not measure value. Nor are prices measured in money: they are amounts of money. And, although those who describe money as a 'standard of deferred payments' naively assume it to be so, as a commodity it is not stable in value. The relation between money and goods perpetually fluctuates not only on the 'goods side', but on the 'money side' also. As a rule, indeed, these fluctuations are not too violent. They do not too much impair the economic calculus, because under a state of continuous change of all economic conditions, this calculus takes in view only comparatively short periods, in which 'sound money' at least does not change its purchasing power to any very great extent.

The deficiencies of money calculations arise for the most part, not because they are made in terms of a general medium of exchange, money, but because they are based on exchange values rather than on subjective use-values. For this reason all elements of value which are not the subject of exchange elude such computations. If, for example, we are considering whether a hydraulic power-works would be profitable we cannot include in the computation the damage which will be done to the beauty of the waterfalls unless the fall in values due to a fall in tourist traffic is taken into account. Yet we must certainly take such considerations into account when deciding whether the undertaking shall be carried out.

Considerations such as these are often termed 'non-economic'. And we may permit the expression for disputes about terminology gain nothing. But not all such considerations should be called

irrational. The beauty of a place or of a building, the health of the race, the honour of individuals or nations, even if (because they are not dealt with on the market) they do not enter into exchange relations, are just as much motives of rational action, provided people think them significant, as those normally called economic. That they cannot enter into money calculations arises from the very nature of these calculations. But this does not in the least lessen the value of money calculations in ordinary economic matters. For all such moral goods are goods of the first order. We can value them directly; and therefore have no difficulty in taking them into account, even though they lie outside the sphere of money computations. That they elude such computations does not make it any more difficult to bear them in mind. If we know precisely how much we have to pay for beauty, health, honour, pride, and the like, nothing need hinder us from giving them due consideration. Sensitive people may be pained to have to choose between the ideal and the material. But that is not the fault of a money economy. It is in the nature of things. For even where we can make judgments of value without money computations we cannot avoid this choice. Both isolated man and socialist communities would have to do likewise, and truly sensitive natures will never find it painful. Called upon to choose between bread and honour, they will never be at a loss how to act. If honour cannot be eaten, eating can at least be foregone for honour. Only such as fear the agony of choice because they secretly know that they could not forego the material, will regard the necessity of choice as a profanation.

Money computations are only significant for purposes of economic calculation. Here they are used in order that the disposal of commodities may conform to the criterion of economy. And such calculations take account of commodities only in the proportions in which, under given conditions, they exchange for money. Every extension of the sphere of money calculation is misleading. It is misleading when in historical researches, it is employed as a measure of past commodity values. It is misleading when it is employed to evaluate the capital or national income of nations. It is misleading when it is employed to estimate the value of things which are not exchangeable as, for instance, when people attempt to estimate the loss due to emigration or war.<sup>4</sup> All these are dilettantisms — even when they are undertaken by the most competent economists.

But within these limits — and in practical life they are not overstepped — money calculation does all that we are entitled to ask of it. It provides a guide amid the bewildering throng of economic possibilities. It enables us to extend judgments 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.

Two things are necessary if computations of value in terms of money are to take place. First, not only goods ready for consumption but also goods of higher orders must be exchangeable. If this were

not so, a system of exchange relationships could not emerge. It is true that if an isolated man is 'exchanging' labour and flour for bread within his own house, the considerations he has to take into account are not different from those which would govern his actions if he were to exchange bread for clothes on the market. And it is, therefore, quite correct to regard all economic activity, even the economic activity of isolated man, as exchange. But no single man, be he the greatest genius ever born, has an intellect capable of deciding the relative importance of each one of an infinite number of goods of higher orders. No individual could so discriminate between the infinite number of alternative methods of production that he could make direct judgments of their relative value without auxiliary calculations. In societies based on the division of labour, the distribution of property rights effects a kind of mental division of labour, without which neither economy nor systematic production would be possible.

In the second place, there must be a general medium of exchange, a money, in use. And this must serve as an intermediary in the exchange of production goods equally with the rest. If this were not so, it would be impossible to reduce all exchange relationships to a common denominator.

Only under very simple conditions is it possible to dispense with money calculations. In the narrow circle of a closed household, where the father is able to supervise everything, he may be able to evaluate alterations in methods of production without having recourse to money reckoning. For, in such circumstances, production is carried on with relatively little capital. Few roundabout methods of production are employed. As a rule production is concerned with consumption goods, or goods of higher orders not too far removed from consumption goods. Division of labour is still in its earliest stages. The labourer carries through the production of a commodity from beginning to end. In an advanced society all this is changed. It is impossible to argue from the experience of primitive societies that under modern conditions we can dispense with money.

In the simple conditions of a closed household, it is possible to survey the whole process of production from beginning to end. It is possible to judge whether one particular process gives more consumption goods than another. But, in the incomparably more complicated conditions of our own day, this is no longer possible. True, a socialistic society could see that 1000 litres of wine were better than 800 litres. It could decide whether or not 1000 litres of wine were to be preferred to 500 litres of oil. Such a decision would involve no calculation. The will of some man would decide. But the real business of economic administration, the adaptation of means to ends only begins when such a decision is taken. And only economic calculation makes this adaptation possible. Without such assistance, in the bewildering chaos of alternative materials and processes the human mind would be at a complete loss. Whenever we had to decide between different processes or different centres of production, we would be entirely at sea.<sup>5</sup>

To suppose that a socialist community could substitute calculations in kind for calculations in terms of money is an illusion. In a community that does not practice exchange, calculations in kind can never cover more than consumption goods. They break down completely where goods of higher order are concerned. Once society abandons free pricing of production goods rational production becomes impossible. Every step that leads away from private ownership of the means of production and the use of money is a step away from rational economic activity.

It was possible to overlook all this because such Socialism as we know at first hand exists only, one might say, in socialistic oases in what, for the rest, is a system based upon free exchange and the use of money. To this extent, indeed, we may agree with the otherwise untenable socialist contention — it is only employed for propagandist purposes — that nationalized and municipalized undertakings within an otherwise capitalist system are not Socialism. For the existence of a surrounding system of free pricing supports such concerns in their business affairs to such an extent that in them the essential peculiarity of economic activity under Socialism does not come to light. In State and municipal undertakings it is still possible to carry out technical improvements, because it is possible to observe the effects of similar improvements in similar private undertakings at home and abroad. In such concerns it is still possible to ascertain the advantages of reorganization because they are surrounded by a society which is still based upon private ownership in the means of production and the use of money. It is still possible for them to keep books and make calculations which for similar concerns in a purely socialist environment would be entirely out of the question.

Without calculation, economic activity is impossible. Since under Socialism economic calculation is impossible, under Socialism there can be no economic activity in our sense of the word. In small and insignificant things rational action might still persist. But, for the most part, it would no longer be possible to speak of rational production. In the absence of criteria of rationality, production could not be consciously economical.

For some time possibly the accumulated tradition of thousands of years of economic freedom would preserve the art of economic administration from complete disintegration. Men would preserve the old processes not because they were rational, but because they were sanctified by tradition. In the meantime, however, changing conditions would make them irrational. They would become uneconomical as the result of changes brought about by the general decline of economic thought. It is true that production would no longer be 'anarchical'. The command of a supreme authority would govern the business of supply. Instead of the economy of 'anarchical' production the senseless order of an irrational machine would be supreme. The wheels would go round, but to no effect.

Let us try to imagine the position of a socialist community. There will be hundreds and thousands of

establishments in which work is going on. A minority of these will produce goods ready for use. The majority will produce capital goods and semi-manufactures. All these establishments will be closely connected. Each commodity produced will pass through a whole series of such establishments before it is ready for consumption. Yet in the incessant press of all these processes the economic administration will have no real sense of direction. It will have no means of ascertaining whether a given piece of work is really necessary, whether labour and material are not being wasted in completing it. How would it discover which of two processes was the more satisfactory? At best, it could compare the quantity of ultimate products. But only rarely could it compare the expenditure incurred in their production. It would know exactly — or it would imagine it knew — what it wanted to produce. It ought therefore to set about obtaining the desired results with the smallest possible expenditure. But to do this it would have to be able to make calculations. And such calculations must be calculations of value. They could not be merely 'technical', they could not be calculations of the objective use-value of goods and services. This is so obvious that it needs no further demonstration.

Under a system based upon private ownership in the means of production, the scale of values is the outcome of the actions of every independent member of society. Everyone plays a two-fold part in its establishment first as a consumer, secondly as producer. As consumer, he establishes the valuation of goods ready for consumption. As producer, he guides production-goods into those uses in which they yield the highest product. In this way all goods of higher orders also are graded in the way appropriate to them under the existing conditions of production and the demands of society. The interplay of these two processes ensures that the economic principle is observed in both consumption and production. And, in this way, arises the exactly graded system of prices which enables everyone to frame his demand on economic lines.

Under Socialism, all this must necessarily be lacking. The economic administration may indeed know exactly what commodities are needed most urgently. But this is only half the problem. The other half, the valuation of the means of production, it cannot solve. It can ascertain the value of the totality of such instruments. That is obviously equal to the value of the satisfactions they afford. If it calculates the loss that would be incurred by withdrawing them, it can also ascertain the value of single instruments of production. But it cannot assimilate them to a common price denominator, as can be done under a system of economic freedom and money prices.

It is not necessary that Socialism should dispense altogether with money. It is possible to conceive arrangements permitting the use of money for the exchange of consumers goods. But since the prices of the various factors of production (including labour) could not be expressed in money, money could play no part in economic calculations.<sup>6</sup>

Suppose, for instance, that the socialist commonwealth was contemplating a new railway line. Would a new railway line be a good thing? If so, which of many possible routes should it cover? Under a system of private ownership we could use money calculations to decide these questions. The new line would cheapen the transportation of certain articles, and, on this basis, we could estimate whether the reduction in transport charges would be great enough to counterweigh the expenditure which the building and running of the line would involve. Such a calculation could be made only in money. We could not do it by comparing various classes of expenditure and savings in kind. If it is out of the question to reduce to a common unit the quantities of various kinds of skilled and unskilled labour, iron, coal, building materials of different kinds, machinery and the other things which the building and upkeep of railways necessitate, then it is impossible to make them the subject of economic calculation. We can make systematic economic plans only when all the commodities which we have to take into account can be assimilated to money. True, money calculations are incomplete. True, they have profound deficiencies. But we have nothing better to put in their place. And under sound monetary conditions they suffice for practical purposes. If we abandon them, economic calculation becomes absolutely impossible.

This is not to say that the socialist community would be entirely at a loss. It would decide for or against the proposed undertaking and issue an edict. But, at best, such a decision would be based on vague valuations. It could not be based on exact calculations of value.

A stationary society could, indeed, dispense with these calculations. For there, economic operations merely repeat themselves. So that, if we assume that the socialist system of production were based upon the last state of the system of economic freedom which it superseded, and that no changes were to take place in the future, we could indeed conceive a rational and economic Socialism. But only in theory. A stationary economic system can never exist. Things are continually changing, and the stationary state, although necessary as an aid to speculation, is a theoretical assumption to which there is no counterpart in reality. And, quite apart from this, the maintenance of such a connection with the last state of the exchange economy would be out of the question, since the transition to Socialism with its equalization of incomes would necessarily transform the whole 'set' of consumption and production. 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.

All economic change, therefore, would involve operations the value of which could neither be predicted beforehand nor ascertained after they had taken place. Everything would be a leap in the dark. Socialism is the renunciation of rational economy.

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- 1 Schumpeter, *Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie*, Leipzig 1908, pp. 50, 80.
  - 2 The following remarks reproduce parts of my essay *Die Wirtschaftsrechnung im sozialistischen Gemeinwesen* (Archiv für Sozialwissenschaft, Vol. XLVII, pp. 86-121).
  - 3 Čuhel, *Zur Lehre von den Bedürfnissen*, Innsbruck 1907, p. 198.
  - 4 Wieser, *Über den Ursprung und die Hauptgesetze des wirtschaftlichen Wertes*, Wien 1884, p. 185 *et seq.*
  - 5 Gottl-Ottlilienfeld, *Wirtschaft und Technik* (Grundriss der Sozialökonomik, II. Tübingen 1914), p. 216.
  - 6 Neurath too admitted this. (*Durch die Kriegswirtschaft zur Naturalwirtschaft*, München 1919, p. 216 *et seq.*) He asserts that every complete administrative economy (planned economy) is ultimately a natural economy (barter system). 'To socialize therefore means to advance the natural economy!' Neurath, however, did not recognize the insurmountable difficulties economic calculation would encounter in the socialist community.



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