Two Forgotten Articles by Ludwig von Mises on the Rationality of Socialist Economic Calculation

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In the past few years, there has been a remarkable revival of academic interest in the Austrian economist Ludwig von Mises's pioneering and incisive critique of the rationality of economic calculation under socialism. An entire issue of the *Journal of Libertarian Studies* was devoted to the subject. Other journals have included articles by Karen I. Vaughn and Peter Murrell.[1] Less well known to American readers will be articles by the German economists R. Neck and S.G. Schoppe.[2] From the late 1940s onward until this recent spate of publications, it was commonly held in western academic circles that von Mises's original critique had been convincingly refuted by:

1. The Polish economist Oskar Lange's 1936 model of "market socialism" (also known as the "competitive solution"), as was expressed in A. Bergson's comprehensive survey of the debate of 1948.[3]
2. The evident viability and high growth rates of the socialist economies of Eastern Europe, where the problems raised by von Mises were simply ignored or bypassed as irrelevant—an attitude theoretically underpinned and academically sanctioned by western "centralist" socialists such as M. Dobb and Paul Sweezy.[4]
3. The rapid rise in the early 1960s of cybernetic optimal planning models using high-powered computer technology, as was later believed by Lange himself.[5]

Most commentators on this famous "socialist controversy" held the view that von Hayek's later arguments against the rationality of socialist economic calculation were a step back from the strict "impossible" charged by von Mises, to a more modest and weaker "impractical" or even "less efficient than capitalism."[6] With that, the original charge lost much of its force and it appeared as if the socialists had won the debate.

Starting in the early 1970s, these same factors caused a gradual change in this prevalent western view of the debate.

- Lange's neoclassical solution came under serious attack, not only from von Hayek and other neoliberals, but also from the centralist socialists such as Dobb and Sweezy (and implicitly the Soviet theoreticians, who never even acknowledged its existence). In 1971, P.C. Roberts convincingly showed that Lange's market socialism could not be called "socialism' as traditionally defined by Marxists. What Lange did was vindicate market relationships, not refute von Mises's criticism.[7] In this line of reasoning Lange actually proved von Mises to be right: without real market relationships and real competition between the "socialist" firms, there can be no rational calculation. This is exactly what von Mises had averred, but he had extended the argument beyond the line Lange implicitly drew, by stating that there could be no independent firms under socialism, as they could not freely dispose over their means of production. Without decentralized property rights, there are no independent firms, no real competition, and no real market relations—and hence no rational calculation. Von Mises had stated (and in the two articles under discussion reiterated) that by "socialism" he understood a *centrally* planned economy, without independent firms acting as if they were the owners of their means of production. In his reply to arguments brought forward by Karl Polanyi and Heimann (to be discussed later) von Mises conceded that rational calculation is possible under *syndicalism*, where the workers or the managers either own the means of production or else behave as if they own them. His challenge was directed at centrally and imperatively planned *state socialism*, which he understood Marxists to want, not at syndicalism or workers' self-management. His quarrel was with Marx, not with Proudhon or the other "associative" socialists! Syndicalist or other market-based systems of socialism are no answer to his critique.
- The slowing down and ultimate stagnation of the growth rates of the Soviet and Eastern European economies, their inability to provide their citizens with a high standard of living, and the many instances of waste and inefficiency cited by Soviet economists themselves cast doubts on the rebuttal of von Mises's critique by the praxis of existing socialism.
- By the early 1970s, it was evident that the "computopian" ideals of a decade earlier had been unfounded. The mathematical planning models were incapable of reforming the practice of the Soviet planning system.
- New interest in the debate was also aroused by the burgeoning literature on the theory of property rights, which was seen to be the essence of von Mises's critique.[8]

The Central European Debate of the 1920s

All presentations of von Mises's critique refer only to his original 1920 article published in the *Archiv für Sozialwissenschaft und Sozialpolitik*. It was

translated into English and republished by Hayek in his 1935 reader on the subject.[9] Occasional reference is made to his major work on socialism, *Die Gemeinwirtschaft* of 1922.[10] In the light of the subsequent controversy over what von Mises precisely wrote and meant, it is necessary to go back to the original German texts. There has been considerable misrepresentation of his actual arguments and many authors quote them only from secondary sources. It is, of course, easy to refute an argument if one starts by misrepresenting it. Von Mises then becomes a kind of straw man, which not only does injustice to his intellectual stature and critique, but also lulls his opponents into a false sense of security. One does not improve the economic theory of socialism by caricaturing the most fundamental criticism of it.

With the publication of "Die Gemeinwitschaft," the matter seemed to rest as far as von Mises own contributions to the debate were concerned. In the 1930s, Hayek took over some of his arguments in an Anglo-Saxon continuation of the debate, with new proponents of socialism (such as Dobb, Sweezy, H.D. Dickenson, A.P. Lerner, and Lange) on the opposite side. For most English-speaking scholars on the subject, *this* was the real "socialist controversy," which was then believed to have terminated with Bergson's aforementioned article. Unknown to most commentators, however, there was an extensive controversy about the rationality of socialist economics in the German journals of the 1920s, with many eminent German and Austrian economists as participants. This controversy was never satisfactorily settled, but rather was overtaken by political events, such as the National Socialist take-over of power and the suppression of socialism. Some original contributors to this debate emigrated to the United States, where they did not continue this Central European part of the debate (with the exception of Hayek, who had not taken part in the discussion of the 1920s).

Not only then are there a number of interesting contributions to the debate by various continental European authors, but there also exist two more articles written by von Mises himself on this subject in 1924 and 1928. In these he discusses and rebuts the counterarguments made by several German and Austrian proponents of socialism in response to his original critique. In doing so, he clarifies and extends his earlier arguments against the rationality of socialist economic calculation. Although they appeared in the same journal as his first article, only an excerpt of the 1924 paper has been translated into English and is therefore available to non–German-speaking readers. It is somewhat obscurely tucked away as part of the appendix to his book *Socialism* and has hardly been noticed by later authors.[11] To my knowledge there is no English translation of the whole article, nor of the 1928 article. In view of the later misunderstandings over what von Mises really meant, it is worth taking notice of these two articles as further evidence of what he really wrote. Here now is a synopsis of these two articles, with a commentary in the light of more recent research. In translating I have tried to stay as close as possible to von Mises's own wording.

"New Contributions to the Problem of Socialist Economic Calculation"

Von Mises opens his second article, "Neue Beiträge zum Problem der sozialistischen Wirtschaffsrechnung' ("New Contributions to the Problem of Socialist Economic Calculation," henceforth "N.B."), which appeared in the "Archiv für Sozialwissenschaft" in 1924, with the statement: "The problem of economic calculation is the major and fundamental problem of socialism."[12] That this had not been realized until then was due to two reasons. First, for the adherents of the objective theory of value, there was no problem at all. If value was objectively determinable and calculable, then economic calculation would not present any problem, even in a socialist society. If they had, however, but visualized the actual construction of a socialist economy, the contradictions of the objective theory of value would soon have become apparent. One cannot solve the problem of value by means of the classical theory of value. Second, all preoccupation with the (future) problems of a socialist society and economic system were strictly prohibited by Marxism. "One was allowed to praise socialism, but not to think about it" (N.B., p. 488).

Von Mises states that it is now no longer possible to evade the problem. He has demonstrated that a socialist society is totally incapable of performing economic calculation, so that economizing ("wirtschaften") or rational economic action is impossible under socialism. He then proceeds to refute the arguments of a number of socialist authors who sought to disprove his original case.

He first discusses the Ph.D. thesis of A.W. Cohn, "Kann das Geld abgeschaft werden?" ("Can Money be Abolished?," University of Jena, 1920). Cohn quotes von Mises's original article extensively and appears to agree with its conclusions. But he then states that the problem had already been solved long ago by A. Schäffle's "social tax."[13] Schäffle had suggested that representatives of the trade unions and the consumers should periodically meet to set differentiated "taxes" (which might be negative) on the labor costs of the consumer goods produced. The "Central Office for Production Accounting" is presumed to know the (homogenous) labor time embodied in the various products. If the volume and intensity of demand exceeds the available supply, then the social tax should be higher than the average labor costs of the product, and vice versa. Thus there arise market-clearing prices on the basis of the labor theory of value. The idea is commonly found in the mid-1870s, as in Marx's own distinctions between "labour values," "*Produktionspreise*," and the daily fluctuating actual market prices.

Von Mises considers this proposal as good as any other for clearing the market for consumer goods, but *only* for this specific purpose.

> For a socialist society can arrange the distribution of (consumer) goods according to whatever principle it pleases, but if it wishes to make them exchangeable against each other, then it is bound to those relationships that arise out of the solely-permitted exchange of consumer goods for each other.

That is to say, if the socialist planning authorities wish to allow "consumer freedom of choice," they must set their selling prices according to the demand and supply relationships existing on the market for consumer goods.[14] This is the only kind of market permitted under socialism—there can be no market for producer goods. The usefulness of this social tax for the purpose of economic calculation is an entirely different matter, for here it must fail completely. According to von Mises, Schäffle's basic error lies in believing that under collectivist production, "social labor" would be a concrete and calculable reality, which could be used as a measure of value. As erroneous is Shaäffle's implicit conviction that rational prices for producer and investment goods can be derived from a set of market-clearing prices for consumer goods. Schäffle and Cohn see the problem solely in terms of finding market-clearing prices for consumer goods. As von Mises was to state in his reply to the arguments of Heimann, that is *not* the core of his problem, which is economic calculation involving investment goods, requiring subjective estimates of an uncertain future. Here market-clearing prices for present goods are but one element of a large set of required data, and insufficient by themselves.

The second author discussed is Karl Polanyi.[15] He admits that von Mises's problem is "the key problem of the socialist economy" and believes it to be insoluble in a centrally administered economy—which is precisely what von Mises, quoting the Marxist classics, defines the socialist economy to bei Polanyi's attempt at a solution is to propose a "functionally-organised socialist transition economy," which von Mises interprets as the kind of social order the English Guild Socialists had in mind. He finds Polanyi's concept of such a system as nebulous as that of the Guild Socialists. The "body politic" is to be the "owner" of the means of production, but it does not have the right of use ("usus") over them. That is reserved for the producers' "association," chosen by the workers on a sectoral basis. This ownership arrangement resembles the Yugoslav property system.

Von Mises considers the basic flaw of this construction to be the vagueness by which it seeks to evade a crucial question: Is the system supposed to be *socialist* or *syndicalist*? Polanyi first assigns the means of production to society as a whole, the "commune," and thus seeks to absolve himself from the charge of "syndicalism" (which must have been quite a crime among Austrian Marxists in the early 1920si) But von Mises states, "Property is the right of use, and if that is assigned to the production associations, then these are the owners and then we are dealing with a syndicalist society" (N.B., p. 491). A choice must be made: there can be no reconciliation between socialism and syndicalism. This strict distinction between the two (which von Mises had in common with all Marxist socialists of the time—and perhaps of today), he made on the basis of a theory of property rights. Property rights over the means of production must be assigned to some concrete body: if neither the "commune" nor the production associations have the final say in their allocation, then the system

is not viable. If final decision-making power rests with the commune (the *political* organization of the community), then one is dealing with a "zentrale Verwaltungswirtschaft," a centrally administered economy such as Soviet Russia's. Polanyi agrees that rational economic calculation is impossible here. If the final power rests with the production associations, then there exists a syndicalist commonwealth.

Polanyi's confusion on this point make him suggest a pseudosolution to von Mises's problem. His associations engage in mutual exchange relations, they give and receive as if they were the owners of the goods, and thus a market and market prices are created Polanyi does not notice that this is irreconcilable with the essence of *socialism*.[17] von Mises agrees that rational economic calculation is possible under syndicalism or under any other producer cooperative-based system where the cooperative bodies are the owners of the means of production. Thus, there is some kind of group-collective *private* ownership, what the Maoists during the Chinese cultural revolution used to criticise as Yugoslav group-capitalism. Group-capitalism is also capitalism and allows rational calculation. But von Mises reiterates his contention that this is impossible under a centrally planned administrative socialist system and says that Polanyi concedes this. All Guild Socialists make the same mistake: they confuse their particular brand of syndicalism with socialism, properly so called. The debate with Polanyi shows that von Mises's original challenge was directed against a centrally administered socialist economy, as was then, during "war communism," and later again in the Stalinist epoch, being constructed in the Soviet Union. It was explicitly not aimed at syndicalism, guild socialism, or some sort of market socialism with independent firms. He readily concedes the rationality of economic calculation in any system in which the enterprises, cooperatives, associations, or whatever have full property rights and are the owners of the means of production. If property rights are dispersed over several decision makers who must interact with one another, then markets (also for producer goods) exist and rational exchange relationships and prices can be established.

The third author discussed is the well-known Marxist E. Heimann.[18] He follows Max Weber in rejecting the concept of a moneyless socialist society, so that his socialism is characterised by monetary calculation. He also suggests separate "production groups," but again does not specify their exact relationship to society as a whole, that is, to the state and its supreme planning organ. Thus he speaks of market exchange relations between the production units, without realizing that the "planned economy," properly so called, is without market exchange. What here could be called "selling" and "buying" is in its nature something very different. Heimann lapses into this error because he sees the defining characteristic of a planned economy as the monopolistic concentration of the individual branches of production, rather than as the dependence of all production on the uniform will of a central social organ. Von Mises finds this misconception all the more surprising as already the name

"planned economy" and all of Heimann's arguments stress the monolithism of the guidance of the economy. "Here, and nowhere else, lies the dividing line between sociaism and capitalism" (N.B., p. 493).

Von Mises defines "pure socialism" as the "strictly centrally-organised commonweal" and the "fully-implemented planned economy" (N.B., p. 493). The possibility that superficially independent departments may have been delegated the task of administering the individual branches of industry, under the monolithic leadership of a central bureau, does not alter the fact that only this bureau has all the authority. The relationships between the separate departments are not established on a market through the competition of buyers and sellers, but by government order. The problem is, that this government intervention lacks any measure to make calculation possible as the government cannot orient itself on exchange relationships formed on the market. The government can, of course, base its calculations on exchange relationships that it establishes *itself*, but such a determination is arbitrary. It is not based upon the subjective evaluations of the economic subjects, which have been carried over to the producer goods through the interaction of all citizens in the processes of production and exchange. Therefore, they cannot form the basis of rational economic calculation (N.B., p. 494).

These last sentences show that von Mises (as well as everybody else in those days1) envisaged socialism as operating under consumer sovereignty.[19] He explicitly excludes "planners' sovereignty"—the authoritarian determination of the output assortment and hence the scarcity relations between all goods and services on the basis of the "planners' " (the political rulers') *own* subjective preferences. The task of the socialist economy was to maximize social welfare on the basis of the individual citizens' own preferences. It was this that he found socialist calculation incapable of doing.

Heimann suggests that economic calculation should be based on the average costs of production, including wages. This argument is circular, even when one defines "costs" as "utility forgone." In a socialist state, the second-best opportunity can only be determined by the state, and the problem is, whether the state can calculate at all what this net-best opportunity is1 In every conceivable form of socialist society, the competition between entrepreneurs (who, in a system based on private property, strive to allocate goods and services to their most profitable use) is replaced by the planned actions of the state. But it is only this competition between entrepreneurs (who mutually seek to wrest capital goods and labor away from each other) that forms prices1 Where production and economic activity occur on a planned basis (by order of a central bureau that everything is subservient to), the basis of profitability accounting disappears and only accounting in physical terms remains. As in Lange's "competitive solution," Heimann believes that as soon as there is real competition on the markets for consumer goods, the price relationships established there will be transmitted to all the stages of production. One must only apply the pricing rule properly, independent of the constitution of the parties on the markets

for producer goods. Von Mises states that this will only occur if *real* competition exists. Heimann visualizes socialist society as the association of a number of "monopolies" (the production departments of the whole socialist organism), with each assigned a delimited sector of production to supply. When these monopolies buy on the producer goods "markets," this cannot be called competition, as the government has previously assigned to them the field in which they must operate and which they may not leave. Competition only exists when each firm produces those goods that appear to offer it the highest profitability. These conditions are only met under private ownership of the means of production (N.B., p. 495).

Heimann's description of a socialist economy only deals with the current production of consumer goods with the aid of raw materials. Thus he gives the impression as if the separate departments of the socialist economy were capable of acting on their own. But far more important than this is the replacement of existing capital stock and investment in new capital goods. The crux of rational economic calculation lies in deciding on these matters, not on disposing existing capital, which to a certain degree has already been predetermined by these decisions. These replacement and investment decisions, which bind for decades to come, cannot be made dependent on the momentary demand for consumer goods. They must be oriented upon the future; they must be "speculative." Heimann's system of having the expansion or contraction of production follow more or less automatically from the state of demand for consumer goods fails utterly here. Solving the valuation problem by reducing it to costs is theoretically only possible in an empirically nonexistent static state. In statics prices and costs coincide, but in dynamics this is not the case (N.B., p. 495).

Von Mises briefly refers to the writings of a number of Soviet economists such as Tchaianov, Strumilin, Bucharin, and Varga, as were known to him through publications of Leichter and Varga.[20] Tchaianov sought to establish some kind of input–output relationships in physical terms between the various sectors of the economy, whereas Strumilin attempted to construct labor values, as did Varga. None of these attempts tried to cope with the crux of von Mises's problem, which is that of *economic* calculation.

The fifth author von Mises discusses is Karl Kautsky, whose rejection of the labor theory of value as the basis for economic calculation under socialism ("the hopeless task of measuring running water with a sieve") he notes with satisfaction.[21] Instead of labor values, Kautsky suggests that the new socialist society should at first employ what it finds readily available: the historical prices, expressed in gold currency, as established under the previous capitalist regime. These outdated prices are the result of a long historical process and are imprecise and imperfect, but they are the sole basis for a smooth continuation of the circulation process under socialism. These prices are at first left unchanged.[22] But whenever social interest demands it, the prices of individual goods are altered from

the historical levels set by capitalism. Kautsky assumes this to be an easier task than to determine labor values for all goods. "Of course this must not be done in an arbitrary way."[23] Von Mises comments that unfortunately Kautsky fails to indicate how this could be done in any other way than arbitrarily. Kautsky's suggestions are not worth further elucidation. Historical prices cannot be used in the long run, and Kautsky does not indicate *how* the necessary corrections should be made (N.B., p. 497).

Von Mises finally discusses Leichter, who rigorously adheres to the labor theory of value.[24] Von Mises repeats the arguments he made against this theory in his 1922 book *Die Gemeinwirtschaft.* The labor theory of value is useless for economic calculation because it is incapable of converting labor of different qualities to a single standard (the so-called "reduction problem") and because it does not take into account the natural factors of production. Leichter believes that the importance of the various labor tasks can be compared with each other. Von Mises says that such comparisons can of course be made, but that they will lead to different results, depending on the subjective valuations of the person who made them. And what does "importance" mean in this context? Does it refer to the importance of being on the job, of producing better work, or the arduousness of the work, and so forth? Each of these comparisons yields a different result, but only one can be the basis of the reduction factor. Leichter's contention that practice daily solves this problem by establishing wages (which was also Marx's solution to this problem)[25] is wholly erroneous. Wage rates are established in market exchange on the basis of subjective valuations, and the problem is precisely whether it is possible to reduce the various kinds of labor to a single standard in a society without market exchange. Leichter attempts his way out of this circular reasoning by stressing that modern wage negotiations have "nearly" nothing to do with "market haggling" in the normal sense of the word—supply and demand play "nearly" no role in determining the wage differentials. Von Mises notes that the double insertion of the word "nearly" robs these arguments of their basis.

The origin of Leichter's (and Marx's) error lies in an inadequate and unclear comprehension of the nature of the market mechanism and market price creation. To Leichter, the essence of the market seems to be "haggling" and reference to supply and demand. Von Mises states, however, that "haggling" may even be absent altogether. Even where "fixed" prices that "allow of no reduction" exist, the market mechanism acts in its usual way, except that the state of the market does not so much influence the price through the actual negotiations of the market parties, but through their behavior, such as the absence or queuing of buyers and the corresponding behavior of the sellers.

Von Mises's other argument against the labor theory of value is that economic calculation should not only comprise labor, but also the material means of production, such as those provided by Nature. Leichter does not demonstrate how the problem of socialist economic calculation can be solved

regarding these scarce goods, on which no labor has been spent. He does remark that "society" will set higher prices for these scarce goods. Von Mises argues that the problem is not whether society sets higher or lower prices, but whether it will be able to do so on the basis of the results of economic calculation. "It was never doubted that society can dispose: I maintain that it cannot do so rationally, i.e. on the basis of a calculation" (N.B., p. 500). Orthodox Marxists have been as incapable as others in finding a useful system of economic calculation for a socialist society.

"New Papers on the Problem of Socialist Economic Calculation"

In volume 60 (1928) of the *Archiv*, von Mises once again returned to the problem of discussing the contributions of a number of new authors in a piece titled "Neue Schriften zum Problem des sozialistische Wirtschaftsrechnung" ("New Papers on the Problem of Socialist Economic Calculation," henceforth "N.S.").[26] In the same number of the *Archiv* that his second article appeared, J. Marschak attempted to refute his original argument by showing that there is no rational economic calculation under capitalism either.[27] (See also the arguments of Lange and Dobb against the rationality of economic calculation under capitalism). Von Mises asks himself whether "a criticism of economic calculation under capitalism yields anything as proof of the possibility of economic calculation under socialism. [Marschak] simply follows the example of all other socialist authors: speak as little as possible of socialism and as much as possible of the inadequacies of the capitalist system" (N.S., p. 187). Marschak then seeks to demonstrate that economic calculation is possible under syndicalism. "That has never been disputed, least of all by me. But the scientific problem to be debated is economic calculation in a socialist, not in a sydicalist commonwealth. Marschak evades this, the real, question" (N.S., p. 187).

He next disposes of O. Neurath's new proposal for calculation in physical terms, on account of its inability to add up different goods.[28] There follows a discussion of a book by the exiled Russian economist Boris Brutzkus, who extensively treats the problem of economic calculation under Soviet socialism.[29] Brutzkus concurs with von Mises that without economic calculation, rational economic action under whatever kind of economic system is impossible. He also is of the opinion that the fact that production requires the combination of three factors (land, labor, and capital) retains its validity and importance under socialism. Therefore, a calculation solely in terms of labor values is incapable of providing an indication of the greater or lesser profitability of enterprises. With that the drafting of a uniform plan, the essence of Marxism, becomes impossible. Von Mises quotes Brutzkus to the effect that:

> With this the socialist commonwealth, even with the entire instrumentarium of scientific theory and a gigantic statistical apparatus, is incapable of measuring the needs of its citizens and of evaluating them and is therefore not in a position to give the necessary directives to the producing units (N.S., p. 189).

Von Mises finds Brutzkus's book the first one that deals with the problem of the Soviet Union in a scientific way. All other works are of a descriptive nature and the presentation of the facts either suffers from an uncritical hatred of the Soviet Union (from which he therefore obviously wished to dissociate himself1) or from its uncritical adulation.

By way of a final judgment on the decade's literature on the subject (which arose out of that undeniable political triumph of uncompromising socialism, the Russian revolution), von Mises quotes the prosocialist author Cassau as saying:

> All experiences of the past decade have bypassed the ideology of "proletarian socialism" without influencing it. Hardly ever before has this ideology had so many possibilities of extension, and has it been so barren, as during this heyday of the debates on the socialisation of the economy (N.S., p. 189).

Conclusion

On the basis of von Mises's replies to his socialist critics in the two articles discussed here, the following conclusions may be drawn as to what von Mises really meant, especially as to what kind of socialist system his original critique was addressed.

1. On the basis of a theory of property rights, von Mises draws a clear distinction between Marxian socialism, properly so called, and syndicalism.
2. A socialist system under which property rights reside with decision makers *within* the separate firms, such as associations or workers' councils, he calls "syndicalism." Here the firms are independent; real competition exists between them. His critique is not aimed at syndicalism; rational economic calculation is possible here.
3. By socialism properly so called, von Mises understands a centrally planned and administered system, what is now often termed "state socialism." All firms here are subordinate to a central political authority. All production takes place according to an imperative, all-encompassing central plan. There are no independent firms and there is no real market or real competition between them. His critique is aimed at this variety of socialism, which he understood Marxists to want and to be in the process of establishing in the Soviet Union at that time.

4. All sorts of market socialist systems can be classified as either syndicalist or socialist according to their property rights structures. If they are syndicalist, they dress up the market in the terminology of socialist planning (in the words of P.C. Roberts). Several authors aver that this applies to Lange's "competitive solution." Such systems are no answer to von Mises's challenge. If they are de facto state socialist, they dress up socialism in pseudo–market terminology. His critique is also aimed at such systems.
5. The goal of socialism is postulated as the maximization of the individuals' welfare (and, by aggregation, social welfare), as defined by the individuals' *own* subjective preferences. Socialism operates under consumer sovereignty (or under citizen and consumer sovereignty, if one admits collective and merit goods). It expressly excludes the state of "planners' sovereignty." This must not be interpreted as a normative judgment on the part of von Mises. Writing before the advent of Stalinist totalitarianism, he (as well as his socialist opponents) conceived of socialism as seeking to maximize its citizens' welfare as they saw it themselves.
6. In the light of the above qualifications, his critique may be reformulated as follows: "Socialism, properly so called, is incapable of maximizing individual and social welfare based on individual preferences."

Notes

1. *The Journal of Libertarian Studies* 5, no. 1 (Winter 1981), with articles by R. Bradley, D. Lavoie, and D. Steele. K.I. Vaughn, "Economic Calculation under Socialism: the Austrian Contribution," *Economic Inquiry* 18 (1980). P. Murrell, "Did the Theory of Market Socialism Answer the Challenge of Ludwig von Mises? A Reinterpretation of the Socialist Controversy," *History of Political Economy* 15, no. 1 (1983).

2. R. Neck, "Die 'Sozialismusdebatte' in Lichte ausgewählter neuerer Entwicklungen der ökonomischen Theorie," and S.G. Schoppe, "Das Problem der Wirtschaftsrechnung in einer Zentralverwaltungswirtschaft aus neuer bürokratietheoretischer Sicht," both in *Jahrbuch für Sozialwissenschaft*, vol. 33 (1982).

3. A. Bergson, "Socialist Economics," in H.S. Ellis, ed., *A Survey of Contemporary Economics* (Philadelphia: Blakiston Co., 1948), p. 446. Two decades later, Bergson was less convinced of the efficiency of the "competitive solution." See A. Bergson, "Market Socialism Revisited," *Journal of Political Economy* 75, no. 5 (1967), pp. 657–8 and 671–72.

4. See, for instance, M. Dobb, "Welfare Economics and the Economics of Socialism," in part II, *A Socialist Economy* (Cambridge: Cambridge University Press, 1969); and P.M. Sweezy, *Socialism* (New York: McGraw-Hill, 1949).

5. O. Lange, "The Computer and the Market," in C. Feinstein, ed., *Socialism, Capitalism and Economic Growth: Essays Presented to M. Dobb* (Cambridge: Cambridge University Press, 1967). On this point see also G.R. Feiwel, "On the Economic Theory of Socialism: Some Reflections on Lange's Contributions," *Kyklos* 25 (1972): 614–16.

6. F.A. Hayek, "The Present State of the Debate," in F.A. Hayek, ed., *Collectivist Economic Planning* (London: Routledge, 1935); also his "Socialist Calculation III: The 'Competitive Solution'," *Economica*, no. 26 (1940). See also O. Lange, "On the Economic Theory of Socialism," in B.E. Lippincott, ed., *On the Economic Theory of Socialism* (New York: 1964), pp. 63–64.

7. P.C. Roberts, "Oskar Lange's Theory of Socialist Planning," *Journal of Political Economy* 79 (1971).

8. G. Warren Nutter, "Markets without Property: A Grand Illusion," in E.G. Furubotn and S. Pejovich, eds., *The Economics of Property Rights* (Cambridge, Mass.: 1974).

9. L. von Mises, "Die Wirtschaftsrechnung im sozialistischen Gemeinwesen," *Archiv für Sozialwissenschaft und Sozialpolitik* 47 (1920), translated into English by S. Adler and published in Hayek, *Collective Economic Planning*.

10. L. von Mises, *Die Gemeinwirtschaft*, Jena (1922), translated by J. Kahane under the title *Socialism* (London: 1936).

11. See L. von Mises, *Socialism* (reprint of the 1951 edition) (London: Jonathan Cape, 1974) pp. 516–21. His appendix, with the excerpt of the 1924 article, was added to the revised second German edition of 1932, which was used for J. Kahane's English translation of 1936. The excerpt comprises 5-1/2 of the original's thirteen pages (pp. 490–95 of pp. 488–500) and deals with only two (Polanyi's and Heimann's) of the original six counterproposals.

12. L. von Mises, "Neue Beiträge zum Problem der sozialistischen Wirtschaftsrechnung," in *Archiv für Sozialwissenschaft und Sozialpolitik* 51 (1924).

13. A. Schäffle, *Bau und Leben des sozialen Körpers*, vol. 3 (Tübingen: 1878).

14. "Consumer freedom of choice" means that the central planners authoritatively determine the volume, assortment, and quality of the consumer goods, but the consumers are free to spend their money income as they please. See also P.J.D. Wiles, *The Political Economy of Communism* (Oxford: 1962), pp. 35, 96–97.

15. K. Polanyi, "Die funktionelle Theorie der Gesellschaft und das Problem der sozialistischen Rechnungslegung," in *Archiv für Sozialwissenschaft und Sozialpolitik* 52 (1924).

16. See K.C. Thalheim, "Formen und Bedeutung des Eugentums an Produktionsmitteln in marktsozialistischen Systemen," in C. Watrin, ed., *Studien zum Marktsozialismus* (Berlin: 1976), pp. 66–68.

17. See on this point P.C. Roberts, "Oskar Lange's Theory."

18. E. Heimann, *Mehrwert und Gemeinwirtschaft* (Berlin: 1922).

19. This should actually be called "consumer-and-worker sovereignty" or, in Rothbard's words, "individual self-sovereignty in the market" (M.N. Rothbard, *Man, Economy and State*, vol. 2. Princeton, N.J: 1962, p. 562). For the sake of simplicity I abstract here from collective and merit goods.

20. For an interesting review of the various attempts to solve the problem of socialist economic calculation in the Soviet Union in 1919–20, see A. Nove, "Marx, the Market and 'Feasible Socialism'," in U. Gärtner and J. Kosta, eds., *Wirtschaft und Gesellschaft. Festgabe für O. Sik* (Berlin: Dunker und Humblot, 1979).

21. K. Kautsky, *Die proletarische Revolution und ihr Programm* (Berlin: Dietz Nachfolger, 1922).

22. O. Lange also suggested taking the historical prices inherited from capitalism as a starting point. See O. Lange, "On the Economic Theory of Socialism," p. 86.

23. K. Kautsky, *Proletarische Revolution*, p. 322.

24. O. Leichter, *Die Wirtschaftsrechnung in der socialistische Gesellschaft* (Vienna: Verlag der Wiener Volksbuchhandlung, 1923).

25. See K. Marx, *Das Kapital*, Erster Band (Berlin: 1975), p. 59.

26. L. von Mises, "Neue Schriften zum Problem der sozialistische Wirtschaftsrechnung," *Archiv für Sozialwissenschaft und Sozialpolitik* 60 (1928).

27. J. Marschak, "Wirtschaftsrechnung und Gemeinwirtschaft," *Archiv für Sozialwissenschaft und Sozialpolitik* 51 (1924).

28. O. Neurath, *Wirtschaftsplan und Naturalrechnung* (Berlin: E. Laub, 1925). Neurath was the prime exponent of a moneyless socialist economy and of planning in physical terms.

29. B. Brutzkus, *Die Lehren des Marxismus im Lichte der russischen Revolution* (Berlin: H. Sack, 1928).