The Review of Austrian Economics

Volume 2

Murray N. Rothbard

The Review of Austrian Economics

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Contents

The Economic Calculation Debate: Lessons for Austrians 1

Israel M. Kirzner

Praxeology and Understanding: An Analysis of the Controversy in Austrian Economics 19

G.A. Selgin

Competition and Political Entrepreneurship: Austrian Insights into Public-Choice Theory 59

Thomas J. DiLorenzo

Why the Austrians Are Wrong About Depressions 73

Gordon Tullock

"Social Utility" and Government Transfers of Wealth: An Austrian Perspective 79

David Osterfeld

Austrian Methodology: The Preferred Tax Type 97

Jeffrey Herbener

The Neglect of the French Liberal School in Anglo-American Economics: A Critique of Received Explanations 113

Joseph T. Salerno

The Austrian Economists and the Late Hapsburg Viennese Milieu 157

Arthur M. Diamond, Jr.

Notes and Replies

Hayek's "The Trend of Economic Thinking" **175**

Bruce J. Caldwell

Timberlake on the Austrian Theory of Money: A Comment **179**

Murray N. Rothbard

Reply to Comment by Murray N. Rothbard **189**

Richard H. Timberlake, Jr.

On Yeager's "Why Subjectivism?" **199**

Walter Block

Reply to Comment by Walter Block **209**

Leland B. Yeager

Saving the Depression: A New Look at World War II **211**

Mark Skousen

Book Reviews

The Myth of Free Banking in Scotland **229**

Murray N. Rothbard

White's Free-Banking Thesis: A Case of Mistaken Identity **247**

Larry J. Sechrest

A Critique of *What Do Unions Do?* **259**

Morgan Reynolds

The Crash and Its Aftermath: A Review Article **273**

Clifford F. Thies

Berger on Capitalism **279**
David Gordon

About the Contributors **285**
About the Editors **287**

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The Economic Calculation Debate: Lessons for Austrians

Israel M. Kirzner

The thesis of this article is that the celebrated debate over economic calculation under socialism that raged during the interwar period was important for the history of economic thought in a sense not generally appreciated. Not only was the debate an important episode, of course, for its own sake. It was, in addition, I shall claim, important as a catalyst in the development and articulation of the modern Austrian view of the market as a competitive-entrepreneurial process of discovery. Professor Karen Vaughn has written of her conviction that "the most interesting results of the controversy . . . were the further developments of economic theory to which it gave rise."[1] It will be my contention here that the crystallization of the modern Austrian understanding of the market must be counted among the most significant of these "further developments of economic theory." I shall argue that it was through the give-and-take of this debate that the Austrians gradually refined their understanding of their own position; the Mises-Hayek position at the end of the forties was articulated in terms far different from those presented in the Misesian statements of the early twenties. Moreover, this more advanced Mises-Hayek position pointed beyond itself toward (and decisively helped generate) the more explicit Austrian statements of the seventies and eighties.

Now it may at first glance appear that my thesis contradicts the view of the most eminent historian of the calculation debate. Don Lavoie, in his definitive account of the debate, has exhaustively explored the debate as what we have referred to as "an important episode for its own sake."[2] His position in regard to the debate emphasizes two related points: First, Lavoie emphatically denies that, as a result of the thrust and parry of the debate, the Austrian side found it necessary "to retreat" from or otherwise modify its originally stated central case challenging the feasibility of economic calculation under socialism. For Lavoie, the later statements of Mises and Hayek do no more than restate—in better, clearer, fashion—the originally presented arguments. Second, Lavoie has demonstrated with admirable clarity and thoroughness that the Mises-Hayek arguments, from the very beginning, reflected

the Austrian understanding of the market as a competitive discovery process. (He furthermore has shown that it was failure by the socialist economists to recognize this that led to confusion during the debate itself, while it was failure by later historians of the debate to recognize this that led to the widespread misinterpretations of the debate by post–World War II writers.) So that it may appear that my contention that the debate was itself responsible for the distillation of that Austrian understanding runs sharply counter to both of these elements in Lavoie's thesis. It will perhaps be helpful to explain briefly why, in my view, there is no contradiction here.[3] In fact, such a brief explanation permits me usefully to introduce further the central ideas to be offered in this article.

The Articulation of the Discovery-Process View

Professor Lavoie is entirely correct, I believe, in interpreting the original 1920 argument by Mises as reflecting the characteristically Austrian understanding of the market as an entrepreneurial process.[4] And, as Lavoie shows, once this is recognized, there is no reason whatever to read the later statements by Mises and Hayek as "retreating" from the original argument. My position is, however, that neither Mises nor (in his earlier papers on the topic) Hayek was aware of how sharply their Austrian view of the market differed from that implicit in the views of other contemporary schools of thought. Accordingly, the earlier statements of the Austrian position failed to articulate sufficiently clearly the "process" perspective that Lavoie (correctly) perceives as underlying those statements.

The truth is that there was, among most economists (Austrian, Marshallian, or Walrasian) in the early twentieth century, a superficial, shared understanding of markets that submerged important distinctions that would become apparent only much later. In this shared understanding, there coexisted elements of appreciation for dynamic market processes and elements of appreciation for the degree of balance—the degree of equilibrium—held to be achieved by markets. To be sure, the Mengerian background of the Austrian version of this common understanding pointed unquestionably to the predominance of the process view, while the Walrasian version of this common understanding pointed consistently toward a strictly equilibrium view, but these conflicting signposts were simply not seen at the time. Mises' earlier statements, while they indeed adumbrated the process elements central to the Austrian tradition, did not emphasize these elements (and, as Lavoie suggests, a case can be made that for his immediate purposes in 1920, it was not at all necessary for Mises to emphasize these elements) so that when economists such as Lange came to consider the Misesian challenge from their own equilibrium perspective, they failed to recognize how seriously they were misunderstanding that challenge.

What occurred as a result of the vigorous interwar debate was that the Austrians were inspired, not to retreat, but to identify more carefully the aspects of their understanding of market processes that their critics had failed to recognize. This process of increasingly precise articulation was not merely one of improved communication; it was a process of improved self-understanding. It is upon this process of improved self-understanding that I wish to focus in this article. While my own principal concern here is with the gradually developing articulation of the modern Austrian position, we should recognize at the same time that the debate was contemporaneous with a parallel process of the development of a more consistently articulated Walrasian/neoclassical position. While it would probably be an exaggeration to see the calculation debate as significantly responsible for the development of a more explicit neoclassical perspective, it seems quite plausible to see the Lange-Lerner position in the calculation debate as at least a significant episode in that development.

What occurred, then, in the quarter century following Mises' original paper on socialist calculation is that a single, blurred picture of the market, common to most economists, came to be resolved into its two separate, distinct, and well-focussed components. The one component came to be perceived as the completely static general equilibrium market model; the second component came to be perceived as the dynamic process of entrepreneurial discovery. It was in the course of the debate that it gradually became apparent to the Austrians—but not to their opponents in the debate—that their position represented a critique of socialism only because and to the extent that markets under capitalism indeed constitute such a dynamic process of entrepreneurial discovery. Lavoie has himself put the matter as follows: "I have concluded that the Austrian economists have learned much by 'living through' the calculation debate. Because they have had to cope with criticisms in past debates, they now have much better, clearer ways of putting their arguments."[5] My contention is that what the Austrians learned was more than a technique of exposition; they learned to appreciate more sensitively how their own tradition understood the market process.

We may distinguish several distinct (but, of course, related) lines of development that occurred during this gradually improved articulation of the Austrian position. First, there was development in the positive understanding of the market process. Second, there was development in understanding the "welfare" aspects of the market process (in particular, in understanding the social function of economic systems or the nature of the "economic problem" facing society). Third, there was development in understanding the role of prices in grappling with this now–better-understood "economic problem" facing society. I will be discussing each of these lines of development in this article. (There were, of course, parallel developments in neoclassical economics in regard to the positive understanding of markets in equilibrium, in regard to appreciation for the welfare properties of general equilibrium, and in

regard to the role of equilibrium prices in promoting complete dovetailing of decentralized decisions.)

Simultaneous Levels of Economic Understanding

My story of the developing articulation of the modern Austrian perspective is complicated, especially in regard to the calculation debate, by the circumstance that from that perspective, there appear *three* distinct levels of economic understanding in regard to the price system. It may be useful for me to spell these out at this point. They are, respectively, (1) the recognition of scarcity, (2) the recognition of the role of information, and (3) the recognition of the role of discovery.

1. The foundation of economic understanding consists, of course, in the recognition of scarcity and of its implications. At the individual level, the recognition of scarcity informs individual allocative, economizing activity. In society, the phenomenon of scarcity implies the social benefits that arise from a price system that translates the relative scarcities of particular resources or products into a price structure that encourages correspondingly effective "economic" utilization of these scarce resources by potential users, whether producers or consumers.

2. A deeper appreciation for the social usefulness of a market price system stems from the insight that prices may be efficient means of communicating information from one part of the economy to another. Where prices do in fact fully reflect the bids and offers made by market participants throughout the market, such prices afford a highly effective system of signals that obviate the need for the transmission of detailed, factual information to decisionmakers. If the source of supply of an important raw material has suddenly been destroyed, the jump in its market price will effectively convey the impact of this disaster to potential users, with great rapidity. Those who have themselves learned of the disaster do not have to inform potential users that it has occurred; the price rise suffices.

3. Finally, and building upon these two previous levels of economic understanding, the modern Austrian perspective decisively draws attention to the manner in which the price system promotes alertness to and the discovery of as yet unknown information (both in regard to existing opportunities for potential gains from trade with existing techniques and in regard to possibilities for innovative processes of production).

The complications introduced by Austrian recognition of the simultaneous relevance of all of these levels of economic understanding should be fairly obvious. From the vantage point of today's explicit modern Austrian position, it is clear that full appreciation of the social benefits provided by the price system involves all three of these levels of understanding. That is, while

an understanding of the social *consequences* of scarcity need not involve understanding of the subtleties of information and discovery, Austrian recognition of the way in which the market price system effectively *grapples* with the scarcity confronting society depends very much upon the recognition of the function that prices play in communicating existing information, and of the function that prices play in alerting market participants to hitherto unglimpsed opportunities. On the other hand, however, neoclassical economics, which certainly recognizes the role of the price system in contending with scarcity, is likely to refer to this role without any recognition of the discovery process of the market (and, until recently, without recognition of the role of the market in communicating information). Because the earlier Austrian statements in the calculation debate did not distinguish between the various levels of economic understanding, and did not emphasize the discovery process upon which their own understanding of the market depended, it was quite easy (for the Austrians themselves as well as for onlookers) to believe that the Austrian critique of socialist calculation indeed proceeded from an understanding of how markets work that was shared by their neoclassical opponents. This was particularly the case because Mises found himself, in the earlier stages of the debate, contending with proponents of socialism who seem not at all to have understood the social problems raised by the phenomenon of scarcity, at the most fundamental level.

It was only after more competent economists—who *did* understand the economic problem created by scarcity—came to argue that Mises' reasoning failed to establish his case, that the Austrians were compelled to articulate more carefully the basis of their understanding of the market process (and, hence, their contention that the socialized economy is unable to provide any counterpart to that process). Thus, Mises refers specifically to H.D. Dickinson and Oskar Lange as two socialist writers on the calculation problem who did appreciate the economic problems involved.[6]

It is against the background of these complications that I turn now to consider, in somewhat greater detail and in more systematic fashion, the developing self-awareness on the part of the Austrians that came to be induced by the various stages of the economic calculation debate. As I have suggested, I will pay separate attention to developments (a) in the positive understanding of how markets work, (b) in understanding the welfare and normative aspects of the economic problem facing society, and (c) in understanding the role of prices in helping deal with that economic problem.

The Market as a Process of Discovery

With the benefit of hindsight, we now understand that in the Austrian view of the market, its most important feature is (and was) the dynamic entrepre-

neurial-competitive discovery process. We know now that, for Mises, the idea of a price that does not reflect and express entrepreneurial judgment and hunch is virtually a contradiction in terms. (It is for this reason that Mises rejected Lange's contention that socialist managers may be able to take their bearings from—and to calculate on the basis of—centrally promulgated nonmarket prices.) We know now that for Mises, the description of states of market equilibrium is mere byplay[7]—the description of something that will never in fact occur and that provides us with little of direct relevance to real-world conditions (conditions that at all times display the characteristics of markets in disequilibrium). We know now that for Mises, competition is an entrepreneurial process, not a state of affairs.[8] We know these matters because they have formed a central theme in Misesian economics since the publication of *Nationalökonomie* in 1940. And we have every reason to agree with Lavoie and others that these insights were, at least implicitly, an integral element in the Austrian heritage from before World War I. (Surely it is for this reason that Schumpeter's views on competition are so similar to those of Mises and Hayek.)

But, despite all this, it must be acknowledged, after a careful study of Mises' 1920 paper, that a first reading of that paper might easily lead to a quite different conclusion. It might easily be concluded from a reading of that paper (and of the corresponding passages in Mises' 1922 original German edition of *Socialism*) that the central feature in Mises' appreciation for markets was their continual ability to generate prices that, to a reasonable extent, approximated their equilibrium values. In his discussion of how market values of commodities enter into economic calculation, it does not seem important to Mises to point out that such market values may be seriously misleading.[9] He does at several points emphasize that "monetary calculation has its limits," its "inconveniences and serious defects,"[10] but the weaknesses that Mises identifies seem to consist almost exclusively in the inability of money prices to capture the significance of nonpecuniary costs and benefits and in the measurement problems arising out of the fluctuations in the value of money. He does not draw attention to the possibility that disequilibrium money prices may inspire market participants to make responses that are mutually inconsistent (e.g., an above-equilibrium price may inspire producers to offer goods that buyers will not buy at that price) or that cause them to overlook opportunities for mutually gainful trade (e.g., where a commodity is being sold at different prices in different parts of the same market). It might easily appear to the superficial reader that Mises was satisfied that market prices are (subject to the limitations to which he refers) reasonably accurate expressions of relative social importance; and that it is this that constitutes the achievement of markets that could not be duplicated under socialism. Under "the economic system of private ownership of the means of production," Mises asserts, "all goods of a higher order receive a position in the

scale of valuations in accordance with the immediate state of social conditions of production and of social needs."[11]

It is true that Mises already in his 1920 paper drew attention to the special problems generated by *changes* in the basic data, with respect to which economic calculation is called for. Thus, it might be argued that for Mises in 1920, a central achievement of the market is its ability to inspire entrepreneurial alertness to such changes, so that, perhaps, his appreciation for the market did, after all, recognize it as "discovery procedure." But it seems difficult to make this claim. Certainly, we can feel confident that Mises in 1920 would have accepted the insight that markets inspire entrepreneurial discovery; but he did not, in his 1920 paper, refer to the problems raised by changing data in a way that presented markets as being essentially on-going processes of discovery. His references to change were merely in order to point out that, although a newly socialized economy might well usefully take its bearings from the patterns of production that had characterized the previously prevailing market economy, changes in underlying conditions and goals would rapidly render those patterns obsolete and inefficient.[12] These brief references by Mises would not prevent a reader from concluding that Mises believed that markets are continuously close to equilibrium, even in the face of changing data. This failure to draw attention to the market as a process of discovery seems to exist in all of Mises' writings published before *Nationalökonomie.*

But in his 1940 *Nationalökonomie* (later to be translated and revised to become *Human Action*), Mises emphasized the importance of seeing the market as an entrepreneurial process with unsurpassable clarity. By that year, Hayek, too, had drawn explicit attention to the problems of equilibration that are somehow, to some degree, apparently successfully overcome in the course of market processes.[13] Moreover, by 1940, Hayek was, like Mises, pointing out that some of those who were arguing in the thirties for the possibility of socialism based on centrally promulgated nonmarket prices were guilty of "excessive preoccupation with problems of the pure theory of stationary equilibrium" and failed to understand how real-world markets are likely to have the advantage in regard to the rapidity of "adjustment to the daily changing conditions in different places and different industries."[14]

There seems to be little doubt that what led Mises and Hayek to emphasize these dynamic aspects of markets at the close of the thirties was the position taken up by their opponents such as Lange, Lerner, and Dickinson in the calculation debate. Where Mises' original statements were directed at those who were completely innocent even of the most fundamental level of economic understanding (involving at least an appreciation for the implications of scarcity), his challenge had now been picked up by competent economists—but economists whose understanding of the market was limited by "preoccupation with equilibrium theory." It was in restating their case in the

face of the arguments of these economists that the Austrians were led to make explicit some of the "process" elements in their understanding of markets which they had hitherto not been impelled to emphasize.

This developing process of greater self-awareness among the Austrians continued during the forties. Mises' contribution in this period consisted of his revision and translation of *Nationalökonomie* into *Human Action.* It was this latter statement of his vision of the market process that was to have the most far-reaching influence on the further development of the Austrian view. It was this magisterial work that presented a dynamic interpretation of the market process in a manner so emphatic and clear as to render it henceforth impossible to overlook the profound differences between the Austrian and the mainstream-neoclassical perspectives.

But it was Hayek who, in two celebrated papers during the forties, articulated certain key elements in the Austrian view in an exceptionally lucid and seminal fashion. In the first of these papers, "The Use of Knowledge in Society" (1945), Hayek drew attention to the role of the market in communicating information. In doing so, he explicitly linked his discussion with the socialist calculation debate. (I will return later in this article to further consideration of the part this paper has played in the crystallization of the modern Austrian position.) In the second of these two papers, "The Meaning of Competition" (1946), Hayek was able to enunciate with great clarity the Austrian understanding of what competition really means and how the contemporary mainstream developments in treating competition in terms of the perfectly competitive state of affairs must be deplored as obscuring understanding of how markets work.

To treat competition exclusively as the perfectly competitive state of affairs, Hayek pointed out, is to confine attention exclusively to states of complete adjustment, to states of equilibrium. But to do this is already *to assume:* "the situation to exist which a true explanation ought to account for as the effect of the competitive process." [15] In other words, Hayek was in this second paper *attributing to dynamic competition the central role in providing a true explanation of how markets generate tendencies toward mutual adjustment of decentralized decisions.*

There seems no doubt that Hayek was led to these insights concerning the severe limitations surrounding the usefulness of the notion of perfect competition by his experience with the proposals of the proponents of "competitive socialism" during the thirties. It became very clear that the illusion of transplanting competition to the environment of the socialized economy could have made its appearance only as a result of the mistaken belief that the role of competition in markets is best portrayed by the model of perfectly competitive equilibrium. Indeed, there are rather clear signs that Hayek's insights concerning the competitive process were developed as a result of the calculation debate. Thus, in his 1940 essay, "Socialist Calculation III: The Competitive 'Solution'," Hayek pointed out that preoccupation with equilib-

rium analysis had led the socialist economists to misunderstand the role of competition. Apparently, Hayek, wrote, "the concept of perfect competition . . . has made them overlook a very important field to which their method appears to be simply inapplicable." This important field includes much "machinery, most buildings and ships, and many parts of other products [that] are hardly ever produced for a market, but only on a special contract. This does not mean that there may not be intense competition in the market for the products of these industries, although it may not be 'perfect competition' in the sense of pure theory."[16] This passage is not as explicit in its understanding of the problems of the perfectly competitive model as Hayek's 1946 paper, but this passage is clearly pointing toward this latter paper—and it has clearly been motivated by the effort to dispel the misunderstandings of the proponents of "competitive socialism." And from the "Meaning of Competition" (1946) to "Competition as a Discovery Procedure" (1968) was but a small step for Hayek.[17] Thus, the linkage between the unfolding of the calculation debate and Hayek's most advanced statement concerning the market as a process of discovery seems not merely eminently plausible, but quite unmistakable.

The Unfolding of the Discovery View

What seems to have been the case is something like the following. The earlier Austrians were simply not aware of their own implicit acceptance of a process view, rather than of an equilibrium view, of markets. One is not always aware that one is speaking prose or, perhaps more to the point, one is not always aware that one is breathing. If Jaffé found it necessary to "dehomogenize" the economics of the Walrasian, Jevonsian, and Austrian schools,[18] this was not merely because outside observers failed to recognize the important distinctions that separated their respective views, but also because leading protagonists of these schools failed to do so as well. Consider the following statement—one is tempted to describe it as an astonishing statement—made by Mises in 1932:

> Within modern subjectivist economics it has become customary to distinguish several schools. We usually speak of the Austrian and the Anglo-American Schools and the School of Lausanne. . . . [The fact is] that these three schools of thought differ only in their mode of expressing the same fundamental idea and that they are divided more by their terminology and by peculiarities of presentation than by the substance of their teachings.[19]

Clearly, the major opponents of Austrian economic theory were, in 1932, perceived by Mises not as being the followers of Walras or of Marshall, but as being the historical and institutionalist writers (as well as a sprinkling of

economic theorists) who rejected marginal utility theory. Mises lists these opponents as including Cassel, Conrad, Diehl, Dietzel, Gottl, Liefmann, Oppenheimer, Spann, and Veblen.[20] Against the views of these writers, Mises saw the three major schools of economics united in their support of the subjectivist theory of value, which for Mises was synonymous with "the theory of the market."[21] Differences between an emphasis on process, as against an emphasis on equilibrium, were simply not seen.

Between 1932 and 1940, however, the eyes of Mises and Hayek were, at least partially, opened. The work of the socialist economists, particularly Durbin, Dickinson, Lange, and Lerner, was based on an understanding of how the market system works, which revealed and expressed the perceived primacy of equilibrium in the workings of that system. In confronting the arguments of these writers, based on this understanding, that a parallel nonmarket price system can be devised for the socialist economy, Mises and Hayek felt called upon to draw attention to the primacy of the entrepreneurial/competitive process that they themselves associated with the market system.

Certainly, the mathematicization of mainstream microeconomics that was occurring (as Walrasian ideas became merged with the Marshallian tradition) during this period helped crystallize the equilibrium emphasis that came to characterize mainstream theory. What helped crystallize the process emphasis of the Austrians was the dramatic use made by the socialist economists of mainstream price theory, to refute the Misesian challenge—a challenge that Mises had believed to be based solidly on that very mainstream theory of price. It was this confrontation, one now sees, that provided much of the impetus for Mises' repeated attacks, in later years, against the misuse of mathematics in economics, the misuse of equilibrium analysis, and the misunderstandings embodied in mainstream treatments of competition and monopoly.

It would be a mistake to suppose that the crystallization of the Austrian process view was completed by the early forties. In the writings of neither Mises nor Hayek were the differences between their own approach and that of the neoclassical mainstream clearly stated. I can attest to the difficulties that the graduate student studying under Mises in the midfifties had in achieving a clear understanding of precisely what separated the two approaches. It was extremely tempting at that time to set down the Mises-Hayek approach as simply old-fashioned, imprecise, and nonrigorous. In helping the student appreciate the foundations of the Austrian approach, Hayek's papers cited in the preceding section were especially helpful. But the gradually achieved clarification of the Austrian process approach—a clarification still not completed—can be traced back unerringly to those first reactions by Mises and Hayek to the contentions of the brilliant socialist writers of the thirties.

The Development of Austrian Welfare Economics

With the benefit of hindsight, it is possible to recognize that for Austrians a normative evaluation of the achievements of the market (or of alternative economic systems) must apply criteria for judgment that differ substantially from those that are encountered in mainstream welfare economics. Now it was, of course, during the course of the interwar debate on socialist economic calculation that modern mainstream economics developed those major features that have characterized it since World War II. And it is difficult to avoid the conclusion that the developments in mainstream welfare economics owe much to clarifications attained during the course the debate. This was probably most especially the case with A.P. Lerner, but appears to be true of welfare economics in general.[22] What I wish to argue in the present section of this article is that in the case of the Austrian approach to normative economics, too, it was the debate on socialist calculation that triggered the process of clarification and articulation.

From the vantage point of the 1980s, it is clear that for Austrians, none of the several notions that economists over the past two centuries have had in mind in evaluating the economic "goodness" of policies or of institutional arrangements can be accepted. Classical ideas that revolved around the concept of maximum aggregative (objective) wealth are clearly unacceptable from the subjectivist perspective. Neoclassical attempts (by Marshall and Pigou) to replace the criterion of aggregative wealth by that of aggregate utility came to grief, for Austrians, in the light of the problems of interpersonal utility comparisons. Modern concepts of social efficiency in resource allocation that seek to avoid interpersonal comparisons of utility, based on notions of Paretian social optimality, are now seen as not being very helpful after all. Not only does the concept of the allocation of social resources imply a notion of social choice that is uncongenial, to put it mildly, to Austrian methodological individualism,[23] it turns out that the concept offers a criterion appropriate almost exclusively to the evaluation of *situations* (rather than processes). Following on Hayek's path-breaking (and now generally celebrated) papers on the role of markets in mobilizing dispersed knowledge, modern Austrians have converged on the notion of *coordination* as the key to normative discussion.[24] As we shall see, this notion fits naturally into the Austrian understanding of the market process. Let us see how this modern Austrian idea developed, in large measure, as a consequence of the economic calculation debate.

In Mises' 1920 statement[25] and its almost verbatim repetition in his 1922 book,[26] Mises was very brief in his assessment of the economic function of market prices. Economic calculation carried on in terms of market prices expressed in money, he stated, involves three advantages. First, "we are able to take as the basis of calculation the valuation of all individuals participating

in trade." This permits comparisons across individuals where direct interpersonal utility comparisons are out of the question. Second, such calculations "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." Inability to produce at a profit proves that others are able to put the relevant inputs to better use. Third, the use of money prices enables values to be reduced to a common unit. The statement of these advantages refers, it is conceded, to economic calculation as such, rather than to the broader issue of the social advantages of the price system. Nonetheless, they seem to express a view of social "economy" that does not differ from a perspective of social allocation of scarce resources. And the same seems to have been the case with Hayek at least as late as 1935. He defined "the economic problem" as being the "distribution of available resources between different uses" and pointed out that this is "no less a problem of society than for the individual."[27] Here, we have a clear idea of the textbook extension of Robbins' famous criterion of economizing activity, from the level of the individual to that of society as a whole. What is important for my purposes is that both Mises and Hayek were judging the usefulness of the price system in terms that treat society as if it were compelled to choose between alternative patterns of use for given scarce resources.

Yet as early as 1937, Hayek was already beginning to draw attention to the economic problem raised by dispersed knowledge. He asserted that the "central question of all social sciences [is]: How can the combination of fragments of knowledge existing in different minds bring about results which, if they were to be brought about deliberately, would require a knowledge on the part of the directing mind which no single person can possess?"[28] In 1940, Hayek applied this insight to criticize the socialist economists in the calculation debate. The "main merit of real competition [is] that through it use is made of knowledge divided between many persons which, if it were to be used in a centrally directed economy, would all have to enter the single plan."[29] But it was in 1945 that Hayek emphatically denied what he had himself apparently previously accepted—that the economic problem facing society was that of achieving the solution to an optimum problem, that of achieving the best use of society's available means:

> The economic problem of society is thus not merely a problem of how to allocate "given" resources—if "given" is taken to mean given to a single mind which deliberately solves the problem set by these "data." It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge which is not given to anyone in its totality.[30]

Moreover, Hayek was explicit in linking the economic calculation debate with this rejection of the idea that the economic problem facing society was the simple optimization problem. A year later, Hayek again referred to his new normative criterion in the course of his criticism of perfect competition theory. Referring to the assumption, central to that theory, of complete knowledge of all relevant information on the part of all market participants, Hayek comments that "nothing is solved when we assume everybody to know everything and . . . the real problem is rather how it can be brought about that as much of the available knowledge as possible is used."[31]

Here then we have the strong assertion to the effect that standard approaches to welfare analysis are assuming away the essential normative problem. There can be little question that this assertion has revolutionary potential for welfare analysis. Although these implications for welfare analysis have been all but ignored by the economics profession (despite a fair degree of understanding of Hayek's related interpretation of the price system as a network of information communication), the truth is that Hayek opened the door to an entirely new perspective on the "goodness" of economic policies and institutional arrangements. Instead of judging policies or institutional arrangements in terms of the resource-allocation pattern they are expected to produce (in comparison with the hypothetically optimal allocation pattern), we can now understand the possibility of judging them in terms of their ability to promote discovery. This innovative insight, whose importance seems difficult to exaggerate, was very clearly a direct by-product of the calculation debate.

As we found in regard to the positive recognition of the market as constituting a discovery process, progress in regard to the normative aspects of discovery has not ceased since the midforties. It has been pointed out that emphasis on fragmented knowledge is not quite enough to dislodge mainstream welfare concepts. "Coordination" (in the sense of a *state* of coordination), while it may refer to coordination of decentralized decisions made in the light of dispersed knowledge, still turns out to involve standard Paretian norms. It is only "coordination" in the sense of the process of coordinat*ing* hitherto *un*coordinated activity that draws attention to the discovery norm identified through Hayek's insights.[32] Hayek has himself deepened our understanding of the problem of dispersed knowledge as going far beyond that of "utilizing information about particular concrete facts which individuals already possess." He now emphasizes the problem of using the abilities that individuals possess *to discover* relevant concrete information. Because a person "will discover what he knows or can find out only when faced with a problem where this will help," he may never be able to "pass on all the knowledge he commands."[33] All this focusses attention on the more general normative criterion of encouraging the *elimination of true error* in the individual

decentralized decisions impinging on the uses made of society's resources. Clearly, this criterion is preeminently relevant to appreciation for the character of market *processes* (in which entrepreneurship and competition spur continual discoveries). Once again, therefore, we see how the socialist calculation debate was responsible for a very fruitful line of development that relates to modern Austrian economics.

The Function of Prices

As Don Lavoie's history of the debate demonstrates, modern Austrian economics is able to comprehend the various stages in the debate with a clarity not hitherto attained. From the vantage point of our present understanding of the nature of dynamic competition, of the role of entrepreneurship, and of the social significance of error discovery, we can see what Mises and Hayek "really meant"—even better, perhaps, than they were themselves able to do at the time they wrote. We can see how the inability of the socialist economists to comprehend what Mises and Hayek really meant stemmed from the mainstream neoclassical paradigm within which the socialist economists were working. And we can see how all this led to confusion and misunderstanding. What is important for the approach in this article is that it was the calculation debate itself that generated those key developmental steps in modern Austrian economics that were ultimately responsible for our contemporary improved Austrian understanding of "what it was all about." We turn now to review briefly the development of greater clarity within the Austrian tradition, in regard to the function of market prices.

We have already noticed Mises' brief 1920 reference to the role that market prices play in permitting economic calculation in the competitive market economy. It would be easy for a superficial reader of the 1920 paper (and of the 1922 book) to conclude that market prices play their part in achieving social efficiency through confronting each market participant with social valuations that reflect the activities of all other market participants and which, again, impose relevant efficiency constraints on the decisions of each market participant these prices now confront. Clearly, such an understanding of the role of market prices would not be greatly different from that understood by Lange in his now notorious reference to "the parametric function of prices, i.e. on the fact that, although the prices are a resultant of the behavior of all individuals on the market, each individual separately regards the actual market price as given data to which he has to adjust himself."[34]

As Lavoie has extensively documented, the true role of price in the Austrian understanding of the market economy is quite different from that understood by Lange. For Austrians, prices emerge in an open-ended context in which entrepreneurs must grapple with true Knightian uncertainty. This con-

text generates "precisely the kind of choice that stimulates the competitive discovery process."[35] In this context, the entrepreneur "does not treat prices as parameters out of his control but, on the contrary, represents the very causal force that moves prices in coordinating directions."[36]

Mises paints the picture of the entrepreneurially driven market and of the role that prices play within it as follows:

> There is nothing automatic or mechanical in the operation of the market. The entrepreneurs, eager to earn profits, appear as bidders at an auction, as it were, . . . Their offers are limited on the one hand by their anticipation of future prices of the products and on the other hand by the necessity to snatch the factors of production away from the hands of other entrepreneurs competing with them. . . . The entrepreneur is the agency that prevents the persistence of a state of production unsuitable to fill the most urgent wants of the consumers in the cheapest way. . . . They are the first to understand that there is a discrepancy between what is done and what could be done. . . . In drafting their plans the entrepreneurs look first at the prices of the immediate past which are mistakenly called *present* prices. Of course, the entrepreneurs never make these prices enter into their calculations without paying regard to anticipated changes. The prices of the immediate past are for them only the starting point of deliberations leading to forecasts of future prices. . . . The essential fact is that it is the competition of profit-seeking entrepreneurs that does not tolerate the preservation of *false* prices of the factors of production.[37]

This 1949 statement (presumably based on a similar passage in *Nationalökonomie*, 1940) appears to attribute a role to prices that differs sharply from that which the superficial reader might have gathered from Mises' 1920 or 1922 statements. The contrast is between the role of prices that are assumed *already* to express with reasonable accuracy all relevant information and the role of prices seen as stimulating entrepreneurial anticipations for the future. It is difficult to escape the conclusion that what led Mises to his more profound articulation of the role that prices play in the entrepreneurial process was his dismay at the Lange-Lerner misunderstandings concerning the "parametric function of prices." His earlier statements concerning market prices had not been made primarily in order to explain the operation of the market system; they had been made in order to illustrate the kind of economic calculation that market prices make possible. These statements were directed primarily at those who fail to recognize how market prices, precisely or crudely, do enforce the constraints implied by scarcity. The experience during the calculation debate not only sensitized Mises to the existence of more sophisticated proponents of socialism, it also sensitized him to the more subtle insights embodied in his own, Austrian, appreciation of the way in which markets work.

In regard to the function of market prices, too (as we found in regard to the appreciation for the discovery procedure of the market and for the emergence of the "coordination" criterion for normative evaluations), the development of the modern Austrian position was not completed in the forties. Hayek's seminal 1945 paper "The Use of Knowledge in Society," which drew explicit attention to the role of prices in communicating information, did not succeed in distinguishing between two quite different communication functions. It is one thing to recognize the role of equilibrium prices as economic signals which permit instantaneous coordination of decentralized decisions, based on dispersed bodies of knowledge. It is quite another thing to recognize the role of *dis*equilibrium prices in stimulating entrepreneurial discoveries concerning the availability of dispersed information (whose existence had hitherto escaped relevant attention). The statements of both Mises and Hayek during the forties, stimulated by the calculation debate, betray sure signs of appreciation for this latter role. But precisely because of Hayek's pioneering and carefully presented insights into the first role (that relating to the signalling function of equilibrium prices), it is doubtful if he came to recognize the sharp distinction that today's Austrians would surely wish to draw between the two roles.[38]

Be this as it may, the modern Austrian recognition of prices as *stimulating discovery* must be seen as a further development in an unfolding series of advances that must surely be judged as having been set in motion, in significant degree, by the calculation debate.

The Continuing Debate

It would be a mistake to believe that the calculation debate has ended. Lavoie has stated the main purpose of his work as being "to rekindle the fires of the calculation debate."[39] There are signs that a new round in the debate is indeed called for. From the perspective of the present article, these signs must be read as calling for restatement of the Austrian position with even greater clarity and sensitivity. The appearance of an important paper by Richard R. Nelson exemplifies this need.[40] Nelson's critique of the market and his implied (moderate) defense of central planning were written with a fairly extensive familiarity and understanding of the Austrian literature in the calculation debate. Nonetheless, it is this writer's opinion that Nelson's paper betrays insufficient understanding of the Austrian position. We have seen that the Austrian position has required successive stages of clarification. Nelson's contention illustrates very well how the most recent clarifications—and more still need to be contributed—are vital in this continuing debate.

Notes

1. Karen I. Vaughn, "Critical Discussion of the Four Papers," in L. S. Moss, ed., *The Economics of Ludwig von Mises: Toward a Critical Reappraisal* (Kansas City, Kans.: Sheed and Ward, 1976), p. 107.

2. Don Lavoie, *Rivalry and Central Planning: The Socialist Calculation Debate Reconsidered* (Cambridge, England: Cambridge University Press, 1985).

3. No claim is being made here that Professor Lavoie will accept this explanation, or, indeed, that he will accept my view that no contradiction is involved.

4. See Lavoie, *op. cit.*, p. 26, where he maintains this despite acknowledging that there "is always, of course, the potential danger that I have illegitimately read modern Austrian notions into the earlier Austrian contributions."

5. Lavoie, *op. cit.*, pp. 26f.

6. L. Mises, *Human Action* (New Haven: Yale University Press, 1949), p. 702n.

7. Mises, *op. cit.*, p. 251.

8. Mises, *op. cit.*, pp. 278f.

9. See L. Mises, "Economic Calculation in the Socialist Commonwealth," translated in F.A. Hayek, ed., *Collectivist Economic Planning* (London: Routledge and Kegan Paul, 1935), pp. 97ff.

10. *Op. cit.*, pp. 98, 109.

11. *Op. cit.*, p. 107.

12. *Op. cit.*, p. 109.

13. See F.A. Hayek, "Economics and Knowledge," *Economica,* 1937; reprinted in *Individualism and Economic Order* (London: Routledge and Kegan Paul, 1949).

14. F.A. Hayek, "Socialist Calculation III: The Competitive 'Solution,'" in *Individualism and Economic Order,* p. 188.

15. F.A. Hayek, "The Meaning of Competition," in *Individualism and Economic Order,* p. 94.

16. Hayek, "Socialist Calculation III," pp. 188f.

17. See F.A. Hayek, *New Studies in Philosophy, Politics, Economics, and the History of Ideas* (Chicago: University of Chicago Press, 1978), chapter 12.

18. W. Jaffé, "Menger, Jevons, and Walras De-Homogenized," *Economic Inquiry* (December 1976).

19. Mises, *Epistemological Problems of Economics* [1933] (Princeton, N.J.: Van Nostrand, 1960), p. 214.

20. Mises, *Epistemological Problems,* p. 215.

21. *Ibid.*, p. 207.

22. See also T.W. Hutchison, *A Review of Economic Doctrines 1870–1929* (Oxford, England: Oxford University Press, 1953), chapter 18; I.M.D. Little, *A Critique of Welfare Economics* 2nd edition (Oxford, England: Clarendon Press, 1957), chapter 14.

23. For a critique of this concept (and of the way the literature has misused Lord Robbins' concept of *individual* allocation of resources), see J.M. Buchanan, "What Should Economists Do?" *Southern Economic Journal* (January 1964).

24. See I.M. Kirzner, *Competition and Entrepreneurship* (Chicago: University of

Chicago Press, 1973), chapter 6; G. P. O'Driscoll, *Economics as a Coordination Problem* (Kansas City, Kans.: Sheed Andrews and McMeel, 1977).

25. Mises, "Economic Calculation in the Socialist Commonwealth," pp. 97f.

26. L. Mises, *Socialism: An Economic and Sociological Analysis* (London: Jonathan Cape, 1936), p. 115.

27. F.A. Hayek, "Socialist Calculation I: The Nature and History of the Problem," in *Individualism and Economic Order,* p. 121.

28. Hayek, "Economics and Knowledge," p. 54.

29. Hayek, "Socialist Calculation III," p. 202.

30. F.A. Hayek, "The Use of Knowledge in Society," *American Economic Review* (1945), reprinted in *Individualism and Economic Order,* pp. 77f.

31. Hayek, "The Meaning of Competition," p. 95.

32. See I.M. Kirzner, "Prices, the Communication of Knowledge, and the Discovery Process," in K.R. Leube and A.H. Zlabinger, eds., *The Political Economy of Freedom, Essays in Honor of F.A. Hayek* (Munich: Philosphia Verlag, 1984); also I.M. Kirzner, "Economic Planning and the Knowledge Problem," *Cato Journal* (Fall 1984).

33. F.A. Hayek, *Law, Legislation and Liberty, Vol. 3: The Political Order of a Free People* (Chicago: University of Chicago Press, 1979), p. 190.

34. Oskar Lange, "On the Economic Theory of Socialism," in B.E. Lippincott, ed., *On the Economic Theory of Socialism* (New York: McGraw-Hill, 1964), p. 70.

35. Lavoie, *op. cit.,* p. 137.

36. Lavoie, *op. cit.,* p. 129.

37. Mises, *Human Action,* pp. 332–35 (emphasis in original).

38. The writer has discussed these issues at greater length in "Prices, The Communication of Knowledge, and the Discovery Process."

39. Lavoie, *op. cit.,* p. 179.

40. Richard R. Nelson, "Assessing Private Enterprise: An Exegesis of Tangled Doctrine," *Bell Journal of Economics,* vol. 12, no. 1 (Spring 1981).

Praxeology and Understanding: An Analysis of the Controversy in Austrian Economics

G.A. Selgin

> The law of sufficient reason states the minimum amount of connection and order in the world which is necessary if we are to have a chance to understand and control it. . . . Thus [the law asserts] there is not unlimited possibility present in our world. . . . Whatever occurs, a battle, a change in the government or in the economic system, or the like, it is not true that everything or anything else could have happened. . . .
>
> The principle of sufficient reason obviously cannot be proved objectively; that is, we cannot prove that it was impossible for everything which has happened to have been different, and we certainly cannot prove that the present constitution of the world is such that only certain things will happen and that nothing else can possibly occur. It is rather a postulate of science to satisfy the demand for understanding. . . . By assuming, therefore, that everything has certain determinate relations to certain definite other elements we have a reason for seeking to find them, and the success of science or its progress encourages us to believe that further relations can be discovered if we persist in our search.
>
> —Morris Cohen, *The Meaning of Human History*, pp. 97, 100.

> We live in a world full of contradiction and paradox, a fact of which perhaps the most fundamental illustration is this: that the existence of a problem of knowledge depends on the future being different from the past, while the possibility of the solution of the problem depends on the future being like the past.
>
> —Frank Knight, *Risk, Uncertainty and Profit*, p. 313.

Austrian economics emerged in rebellion against skepticism. The predominant economic doctrine in continental Europe at the time of its founding, that championed by the German historical school under Gustav Schmoller, rejected the idea of an economic science devoted to the explanation of market phenomena in terms of exact and universal laws. It proposed, instead, historical description and interpretation of social events devoid of any reference to universal or "exact" laws and to "pure" economic theories based on them.

Today, Austrian economics is challenged by skepticism once again. The new threat is not historicism per se, but the unorthodox views of G.L.S. Shackle and his Austrian followers.[1] According to Shackle, the future is unknowable and "kaleidic" (that is, dominated by patternless change). Action in the marketplace, to be rational, requires that actors in the marketplace be able to anticipate the behavior of their fellows. Theory cannot explain why such anticipations should, except by mere chance, be correct. Thus, the idea that action is "purposeful," which lies at the heart of the conventional Austrian approach to economic theory, is questioned, and new doubt is cast upon the meaningfulness of economic science. This has led to a controversy within the Austrian school that is the subject of the present analysis.

Before examining this controversy, it will be necessary to review the methodological tenets of Austrian economics. In particular, it will be useful to examine the method of praxeology, which forms the basis for the Austrian defense of the possibility and validity of "pure" (i.e., universal) economic theory. The investigation will then proceed to analyze the ideas of F.A. Hayek, G.L.S. Shackle, and Ludwig M. Lachmann insofar as they have cast suspicion upon the praxeological approach as it was originally conceived by Mises. Finally, the analysis will turn to the issues of equilibration, coordination, and determinism that occupy center stage in current Austrian debate. It attempts to resolve the conflicts concerning these issues by offering new arguments based on the application of radical subjectivism consistent with the praxeological framework. The article concludes with a critical assessment of proposed changes in the Austrian "research program."

Praxeology: The Method of Economic Theory

The most conscientious and extensive development of the methodological doctrines of the Austrian school was undertaken by Ludwig von Mises.[2] Mises viewed his efforts as an elaboration and extension of the beliefs of Carl Menger, the school's founder. Menger's views developed during the course of the famous *Methodenstreit,* which pitted him against the antitheoretical doctrines of the German historical school. Lachmann aptly notes that Mises "saw in Menger's distinction between 'exact laws' and empirical regularities the pivot of Austrian methodology."[3] Mises' particular elaboration of the Austrian method, which he called "praxeology,"[4] is still regarded by many Austrian economists as *the* method of the Austrian school.[5]

In refining Menger's ideas, Mises had to confront new opposition in the form of the doctrines of logical positivism. Mises saw in positivism the same epistemological presumptions that were at work in historicism; namely, a

denial of the existence of universal and necessary laws independent of concrete historical events. To Mises, this view was grounded in fallacy:

> We are not capable of conceiving a world in which things would not run their course "according to eternal, pitiless, grand laws." But this much is clear to us. In a world so constituted, human thought and "rational" human action would not be possible. And therefore in such a world there could be neither human beings nor logical thought.[6]

Empiricism, beginning with Hume's skepticism and including all of its positivist variants, shares the historicist's denial of necessity. It attempts to salvage the categories of "law" and "theory" by invoking the procedure of induction, i.e., the derivation of theory from the generalization of observed conjunctions of historical events. However, empiricism has yet to solve the "problem of induction." It cannot, on the basis of its own epistemological tenets, offer a satisfactory basis for the assumption that its generalizations apply with equal force to *future* events.[7] Thus empiricism does not provide a true alternative to historicism. It leaves intact the claim, disputed by Menger and by Mises, that scientific knowledge consists entirely of generalizations "drawn from past experience that could always be upset by some later experience."[8]

In countering positivism, Mises took refuge in Kantian epistemology and especially in Kant's defense of the category of the synthetic a priori. What Mises regarded as crucial in Kant was, however, not Kant's formal analysis of a priori knowledge or his epistemological idealism, but rather his conviction, *contra* empiricism and historicism, that reason could give universal and necessary knowledge—knowledge that was fresh and informative.[9] In the sense in which he applied it in economics, Mises' apriorism did not differ fundamentally from Menger's Aristotelian essentialism.[10]

Praxeology represents an attempt to escape the nihilistic implications of both historicism and empiricism. It affirms the operation of inviolable laws within the realm of human action. It purports to establish the universal validity of these laws by deducing them from the allegedly incontestable truth that people act purposefully, the "axiom of action." Although supposedly irrefutable, this axiom is not merely "analytic," i.e., nonempirical or vacuous. It is based upon the reality of the pursuit of ends and the choice of means for their attainment that distinguishes all mental (and, hence, human) activity.[11] Thus *a priori* to Mises means "independent of any particular time or place." It does not imply independence from all "experience," although it does denote independence from the sort of sensory experience that empiricism and positivism emphasize: "It rests on universal *inner* experience, and not simply on external experience, i.e., its evidence is reflective rather than physical."[12]

Sense data alone, on the other hand, could not reveal to us the essential purposefulness of human actions.

Nor is experience of the empiricist variety effective in refuting theories derived praxeologically. Rather, refutation of a praxeological theory requires discovery of a fault in the chain of reasoning employed by the praxeologist. Empirical evidence does not "falsify" a theory, but rather serves to establish the appropriateness of the theory's application to a particular, concrete event.[13]

To meaningfully deny the "action axiom" (i.e., the claim that people act purposefully) is difficult. Denial of the axiom's empirical validity involves a purposeful act on the part of skeptics. It therefore confronts them with the uncomfortable choice of either conceding the issue or proclaiming that their own disagreement is purposeless. Thus, any denial of the action axiom is self-contradictory.[14] Yet it is neither "empty" nor "arbitrary": it is axiomatic in the sense that distinguishes an *axiom* from a *postulate*. It is epistemologically distinct from the a priori assumptions employed in the hypothetical-deductive procedures of orthodox (neoclassical) economics.[15]

To be sure, Mises would have insisted that all of the lasting discoveries of the classical and neoclassical economists in the realm of pure theory were in fact results of the method described by praxeology; but this was by no means the *acknowledged* procedure of those schools of thought.[16] Neoclassical economics regards even its most fundamental "laws" as contingent or "probable." Indeed, many of its modern theorems are based upon patently false assumptions, some selected for their alleged predictive capacity and all subject to empirical testing and falsification. The fundamental "laws" of praxeology are, in contrast, held by it to be universally valid. They hold with "apodictic certainty."[17]

Mises was heavily influenced by Max Weber as well as by Kant. It was from Weber that Mises took the notion of purposefulness which he made the starting point of praxeological analysis. Mises also adopted Weber's emphasis upon methodological individualism and his insistence upon the necessity and possibility of an entirely value-free (*wertfrei*) science of human action.[18] Using these notions, Mises refined Menger's development of the subjective theory of value.

Mises' extended application of praxeological subjectivism may be viewed as a limited version of the doctrine of epistemological subjectivism or idealism: it maintains that within the realm of human action, there are phenomena—in particular, market phenomena—that exist only by virtue of the consciousness of purposeful individuals. Thus, value, wealth, profit, loss, and cost are products of human thought, having no "objective" or extensive foundation. One cannot imagine their existence or conceive their alteration, except in connection with acts of valuation and choice.[19] (I shall have occasion to insist upon the consistent application of this subjective doctrine later on

in this article.) Thus, to explain market phenomena in a manner consistent with its subjectivism, praxeology refers to acts of valuation and choice. However, praxeological subjectivism is also value-free or nonnormative:

> [It] does not pass judgment on action, but takes it exactly as it is, and it explains market phenomena not on the basis of "right" action, but on the basis of given action. It does not seek to explain the exchange ratios that would exist on the assumption that men are governed exclusively by certain motives and that other motives which do in fact govern them, have no effect. It wants to comprehend the formation of exchange ratios that actually appear in the market.[20]

Praxeology is also distinct from psychology. Although it explains market phenomena in terms of individual purposefulness, it does not seek to identify the motivations, thoughts, and ends that give rise to particular purposes and choices. The inability of the praxeologists, as "pure theorists," to identify the ends of acting individuals also prevents them from constructing categories of "economic" and "noneconomic" action. Moreover, it prohibits them from passing judgment on the appropriateness of individual choices. Because praxeology does not judge actions, it is also not in a position to regard any act as "irrational." It recognizes that all acts of choice have meaning to the individual choosers in terms of *some* goal or purpose, however peculiar or ephemeral, that directs their actions: "The idea of an action not in conformity with needs is absurd. As soon as one attempts to distinguish between the need and the action and makes the need the criterion for judging the action, one leaves the domain of theoretical science, with its neutrality in regard to value judgments."[21] This application of subjectivism freed praxeology from psychological or normative assumptions and made it the analysis of the "pure logic of choice." Through it economics could become a means for the discovery of universal truths. Subjectivism was not wanted for its own sake, but as a means toward the Austrian quest for elements of necessity within the sequence of social events.

Ideal Types and "Exact Laws"

Praxeological theories, as understood by Mises, are independent of the particular psychological makeup of individuals. Praxeology does not address the *content* of individual preferences or the particular motives that give rise to those preferences. It is concerned with the pure *logic* of choice.

Concrete individual ends and values have historical but not theoretical significance; that is, they are relevant to all applications of pure theory to

particular, historical circumstances, but enter only as auxiliary assumptions in constructing theory itself. Individual ends and calculations undergo continuous inexplicable change and cannot be the subject of anything like "exact laws." In the words of Frank Knight, a non-Austrian defender of the praxeological method, "There are no laws regarding the *content* of economic behavior, but there are laws universally valid as to its *form*. There is an abstract rationale of all conduct which is rational at all, and a rationale of social relations arising through the organization of rational activity."[22]

To distinguish its universally valid content from history, praxeology had to show that its most fundamental theoretical conclusions—its theoretical "hard core"—was not based upon the imputation of some "typical" motivations or values to acting people. For this reason, Mises, while adopting many of Max Weber's methodological prescriptions, regarded the latter's "ideal-type" constructs as unnecessary to the development of pure theory. For Mises, the laws of praxeology did not refer to ideal-typical "rational" or "economic" people, but to acting people *as such*. Only in this way could those laws be universal or, in Menger's word, "exact."

Weber, in contrast, had been unable to accept Menger's notion of exact laws in economics. Thus, he regarded the "law" of diminishing marginal utility and other fundamental discoveries of the pure logic of choice as "pragmatic" rather than necessary truths.[23] Weber considered economic theory dependent upon the assumption of special kinds of action that might in fact only loosely approximate the actions of people in the real world. In particular, Weber referred to a type of "rational man" who was a throwback to the "economic man" of the classical economists.[24] Mises, in contrast, held that such an approach was, first of all "wholly inapplicable to the subjective value theory" and, further, that it failed "to solve the question of the source of this knowledge of 'purely economic' behavior."[25]

A more fundamental problem with the ideal-type approach is recognized by Israel Kirzner in his book *The Economic Point of View,* "It is apparent," Kirzner writes, "that when conformity to an ideal-type must be assumed for the deductions of the propositions of economics, these propositions cease to be logical implications of actions, and economics ceases to be a branch of praxeology."[26] In other words, economic laws become contingent rather than necessary, and the ideal-type approach fails to provide economic theory with an epistemological basis that frees it from the defects of positivism and historicism.

Alfred Schutz, in his 1932 book, *The Phenomenology of the Social World,* accepted Mises' criticisms of Weber and attempted to incorporate these into his own adaptation and generalization of Weber's method.[27] Schutz proposed an ideal-type for acting man which would possess the universal applicability needed for the construction of pure economic theory. According

to Schutz, ideal-types of this sort "do not refer to any individual or spatio-temporal collection of individuals. They are statements about anyone's action, about action or behavior considered as occurring in complete anonymity and without any specification of time or place. They are precisely for that reason lacking in concreteness."[28] Schutz observed, using words taken from Mises, that any principle derived from such constructs is "not a statement about what usually happens, but of what necessarily must happen."[29]

Schutz here stretches the meaning of ideal-type so as to include constructs so "typical" or general that no action can be conceived that does not conform to them. If we so define *ideal-type* to include a type for mankind "as such," then we may conclude that praxeological theories must also be based "exclusively" on the use of ideal-typical constructs.

The significance of Schutz' work to Austrian economics lies not in this semantic innovation but rather in Schutz's use of more *narrow* ideal-types to derive what he calls a "common sense" understanding of social phenomena. This common sense approach is, however, *not* based upon the anonymous ideal-type for mankind "as such." It is, as is readily apparent from Schutz's own discussion of it, a historical, value-laden approach: "In order to explain human actions the scientist has to ask what *model* of an individual mind can be constructed and what typical *contents* must be attributed to it in order to explain *observed facts* as the results of the activity of such a mind in an understandable relation."[30] These models, Schutz continues, "are models of rational actions but not of actions performed by living human beings in situations defined by them."[31]

It is clear that Schutz is describing a procedure that Mises would have regarded as historical (i.e., suitable for examining particular, concrete cases) rather than praxeological. Mises' distinction between theory and history was a sharp one, and I shall have occasion to discuss it later. What must now be understood is that for Mises, economic theory rests upon a body of certain truths independent of time and place. The presence of such a "pure" theoretical foundation distinguishes praxeology from types of economic analysis that regard even their most fundamental assertions as empirical, i.e., as "historically limited" in nature.

For Weber, in contrast (as Mises interpreted him):

> The difference between [praxeology] and history is considered as only one of degree. . . . They are different merely in the extent of their proximity to reality, their fullness of content, and the purity of their ideal-typical construction. Thus Max Weber has implicitly answered the question that had once constituted the *Methodenstreit* [the famous Battle of Methods in which Carl Menger defended theoretical analysis against the attacks of the historical school] entirely in the sense of those who denied the logical legitimacy of a theoretical science of social phenomena. According to him [praxeology]

> is logically conceivable only as a special, qualified kind of historical investigation.[32]

In the analysis of history (which for Mises includes most "applied" economics), the use of content-laden ideal types is unavoidable: in order to render meaningful in other than a logical sense the particular acts of persons and the concrete consequences that arise from and in turn influence those acts, one needs to impute to the persons in question a framework of motivations, ends, and imagined means, thus making their behavior *understandable.* This method of historical understanding of *verstehen* (which is the same as Schutz's "common sense" approach to observed facts) goes beyond the logical, necessary aspects of action and attempts to reconstruct the psychological content and orientation of actions. It analyzes actions, not merely by referring to human purposefulness, but by attempting to comprehend the subjective *meaning* attached to actions by the actors themselves. As such, its constructs cannot refer only to the anonymous figure of acting man or man "as such," but instead must refer to preference-laden, idealized individuals.

For Mises, "history" deals with the *concrete* manifestations of action. "For history," he observed, "the main question is: What was the meaning the actors attached to the situation in which they found themselves and what was the meaning of their reaction and, finally, what was the *result* of these actions."[33] In an important sense, then, the pure theory that forms the heart of praxeological analysis requires a type of subjectivism distinct from the subjectivism needed in historical analysis. Praxeologists, as developers of pure theory, must consider market phenomena without presuming any knowledge of agents' preferences and beliefs. They must view the world, not as "understanding" beings employing "common sense" to interpret a specific historical event, but as theorists in search of the *logical* patterns that underlie the actions of *all* "understanding" individuals.

Of course, even pure economic theory is affected to some degree by considerations of history. But these considerations mainly refer to the problem of whether a certain theory is relevant to a particular historical phenomenon under investigation. Thus, the law of diminishing marginal utility and its immediate corollaries apply with certainty to any historical situation where at least one purposeful individual must dispose of (or sacrifice) multiple units of a good. The Ricardian law of association, in contrast, applies only where there are numerous individuals engaged in exchange, that is, it is a law pertaining to market phenomena, or what Hayek called "catallactics." Other praxeological laws and theories rely upon lengthier chains of reasoning into which a variety of assumptions enter. These are hypothetical-deductive theories: although their starting point is the certain fact of purposefulness, the auxiliary assumptions involved may or may not conform to any particular historical circumstance. Finally, praxeology includes exercises in "conjectural

history" in which reference is made to specific institutions (money, central banking), circumstances (monopoly), and policies (tariffs, taxation). Such conjectural histories therefore make use of ideal-type constructs (these constructs, to be sure, never refer to ideal-typical *people,* but only to ideal-type *objects* or *consequences* of action), although their truth follows apodictically wherever all the real-life equivalents of the specified ideal-types are present in a given historical circumstances. Causal-genetic or "evolutionary" theories such as Menger's theory of the origin of money fall into this category of conjectural history.

Praxeologists may sometimes refer to *actual* historical events in order to *illustrate* theoretical results. Here, however, a casual exercise in history proper (and, therefore, a departure from pure theory) is involved. All examinations of particular historical policies and institutions (e.g., all "applied economics"—which, to be sure, includes most of what economists do) are nevertheless outside the realm of pure theory and necessarily rely upon assumptions about individual motives and values. Thus, actual history, unlike the conjectural histories of the praxeologist, makes use of ideal-type constructs, not only of institutions, policies, and industrial circumstances, but also of acting individuals. It seeks to understand the specific meaning of historical market phenomena by referring to "common sense" interpretations based upon values and goals imputed to the actors involved. The dividing line between "theory" (i.e., praxeology) and history (in Mises' strict sense) is thus marked by the need to employ psychological understanding or "common sense."

"Common sense," however, is not used only by social scientists. Praxeology recognizes it as an essential tool of all people who act in the social world. All entrepreneurial action (i.e., speculative action in the marketplace) requires understanding of other people's motives and intentions: "To know the future reactions of other people is the first task of acting man. Knowledge of their past value judgments and actions, although indespensable, is only a means to this end."[34] Thus, while history and common sense or psychological understanding of people's *past* values and actions are essential for understanding the future, they are not necessarily sufficient. Moreover, entrepreneurship derives only limited practical guidance from praxeology, the "predictions" of which, being simply examples of its conjectural histories, are always qualitative and contingent; they cannot inform us of the actual choices people will make. "The a priori discipline of human action, praxeology, does not deal with the actual content of value judgments. It deals only with the fact that men value and then act according to their valuations. What we know about the actual content of judgments of value can be derived only from experience."[35]

With these considerations in mind, it is possible to state the dilemma at the heart of the present controversy in Austrian economics: If, in fact, "action

[in society] *implies* understanding of other men's reactions"[36] and "no action can be planned or executed without an understanding of the future,"[37] then how can praxeology proceed to the elucidation of market phenomena unless it *first* addresses "the main epistemological problem of . . . understanding," *viz.*: "How can a man have any knowledge of the future value judgments and actions of other people?"[38] The current controversy within the Austrian school is due mainly to the conviction on the part of some Austrians that praxeology must address and resolve this problem of understanding. Otherwise, its theorems must be regarded, not as *necessary* truths about the world, but as empty and arbitrary tautologies referring to a hypothetical society populated, not necessarily by man "as such," but by "understanding man"; not by *homo agens*, but by *homo percipiens* (perceiving man) and, even more crucially, by *homo divinans*—"man who grasps the future."

From Mises to Lachmann: Austrian Revisionism

Hayek

A break from the praxeological approach came with Friedrich Hayek's 1937 essay "Economics and Knowledge."[39] The intention of this essay was ambiguous. Superficially, it appeared to be a critique of neoclassical equilibrium analysis. But it also involved a subtle rejection of the methodological presuppositions of praxeology.[40]

Though admitting that Austrian economics did possess a "formal" component (which Hayek called the "pure logic of choice"), Hayek regarded the meaningfulness and necessary truth of this formal component to be severely circumscribed. Indeed, he viewed praxeology as only contingently applicable to catallactics, i.e., to the elucidation of market phenomena. As far as the social world was concerned, the pure logic of choice was merely a collection of empirically empty tautologies.[41] Praxeology, in seeking "apodictically certain" conclusions, had so drained itself of content as to become useless as an *independent* means for deriving useful truths about reality. Far from relying exclusively upon the fact of purposefulness, applications of praxeology to catallactic phenomena involve unacknowledged auxiliary assumptions about the dissemination and use of *knowledge* by market participants; assumptions "*about causation in the real world.*"[42] This is true especially of its conclusions that rely upon the operation of competitive forces with a "tendency toward equilibrium" as their driving force. And where assumptions about causation are involved, these are subject to falsification.[43]

Hayek's allusions to falsification are a special source of ambiguity, for one is never entirely sure whether the implied empirical analysis is supposed to make use of the crude sense data of positivism or of "common sense"

evaluation founded on ideal-types. In a footnote near the end of his essay, Hayek leads us to believe that, despite his references to Popper and to falsification, he in fact has the "common sense" procedure in mind.[44]

The thrust of Hayek's essay is, however, unaffected by the specific type of empirical evidence it recommends. It claims that even pure economics, insofar as it concerns *market* phenomena and not merely the actions of isolated individuals, must be partly an empirical or psychological science rather than a logical-deductive one. It must investigate the meanings attached by individual actors to their situation, and it must examine the particular motivations and stimuli that give rise to their choices. It must become a science, not just of action, but of people's *reactions,* and of how these reactions may reflect the use and dissemination of knowledge. Only in this way can economics solve the riddle as to why acting people "should ever be right."[45] And until it solves this riddle, it cannot say anything certain about market processes.

To put the challenge differently, economic science must establish and examine the mechanisms of *social causation.* It must show that actors in the social world may become reasonably informed of the valuations of other individuals so that they may direct their actions well enough to achieve desired results. Unless this is possible, the formal conclusions of economics, and of praxeology in particular, remain purely hypothetical.[46]

It shall be argued, *contra* Hayek, that the "pure logic of choice" has a great deal to say about the prerequisites for successful action—notwithstanding our ignorance as to the mechanisms of social causation. Moreover, although we shall see that the absence of such causation would have serious implications, it will be argued that Hayek's suggestion that praxeological conclusions need the support of *an explanation* of social causation (that is, of why it should be that people are ever right) is not very good advice after all.

Shackle

While Hayek criticized "formal" theory for disregarding the role of learning, George Shackle chastized it for its neglect of time. It is important to understand that these criticisms are not the same, although the latter may be considered an extension of the implications of the former. Hayek's critique was largely concerned with the diffusion by the market of knowledge regarding the effects of *past* actions, i.e., its ability to reveal the impact and success of entrepreneurship. Shackle's criticism is much more radical. He concerns himself specifically with the inability of the market to harness and disperse knowledge about the *future.* Thus, he focuses on the failure of formal theory to address the problem of expectations. Moreover, while Hayek suggested the need for economics to explain the possibility of successful (or what we shall later call "coordinating") market actions, he never doubted that the

prevalence of such successful action was a *fact*. Shackle, in contrast, has taken just the opposite view.

It is necessary to distinguish two parts of Shackle's critique. First, in what shall be referred to as his "weak thesis," Shackle claims that economic theory neglects the existence of uncertainty. Second, in his "strong thesis," he argues that economic theory cannot deal with the implications of a "kaleidic" future. Only the strong thesis represents a potential criticism of praxeology. It is this thesis that, one may infer, Ludwig M. Lachmann (whose views will be discussed shortly) draws upon in citing the need for praxeology to account for the problem of "divergent expectations."

In expounding his weak thesis, Shackle erects a dichotomy that entirely overlooks the praxeological approach. To Shackle, who implicitly equates "formal" theory with neoclassical theory, the only conceivable basis for pure theory is one that identifies rational action with action that is "fully informed."[47] Thus, formal theory and its body of deduced relationships are relevant, as he sees it, only to the general equilibrium schema which necessarily excludes the passage of time. Shackle therefore presents the following dilemma: "If there is fundamental conflict between the appeal to rationality and the consideration of the consequences of time as it imprisons us in actuality, the theoretician is confronted with a stark choice. He can reject rationality or time."[48] Clearly, this distressing choice results from Shackle's identification of "rationality" with its neoclassical interpretation according to which rational action is action that *achieves* results more or less identical to those prescribed by the allegedly objective conditions of general equilibrium. Praxeology is entirely unaccounted for in this view of things, for it is at once "formal," giving laws and theorems valid with logical necessity, yet fully applicable to a world of time and its corollary, uncertainty. Indeed, it is only in a world of time and uncertainty that action, the starting point of praxeological analysis, would be possible at all. In a world of perfect certainty and knowledge, individual "actions" would be entirely predetermined. They would be automatic, not purposeful.

Praxeology does not postulate any rigid determinism insofar as *concrete* acts of choice are concerned. The soundness of its deductions is not demonstrated by appeal to forecasting power or its counterpart, empirical falsifiability. Purposeful action involves an ever-present *logical* pattern which praxeology seeks to discover through deduction while avoiding the suggestion that future concrete choices and events in any *scientific* sense be knowable and predictable.

Shackle, on the other hand, cannot conceive of a "pure logic of choice," i.e., of praxeology. He equates formal with "static," unanticipated change with "irrationality." His weak thesis entirely misses the mark insofar as praxeology is concerned. Shackle does not distinguish between neoclassical value theory (based upon the assumption of perfect knowledge and the analysis of

a fully determined general equilibrium system of means and ends) and praxeology (which is based upon an analysis of the implications of *action* and necessarily presumes the existence of uncertainty respecting means and ends). Praxeology does not make use of the neoclassical construct that Shackle calls "the rational ideal." Its fundamental basis is a different idea of rationality. According to Mises, this "fundamental thesis of rationalism" is not only consistent with reality but "unassailable":

> Man is a rational being; that is, his actions are guided by reason. The proposition: Man acts, is tantamount to the proposition: Man is eager to substitute a state of affairs that suits him better for a state of affairs that suits him less. In order to achieve this, he must employ suitable means. It is reason that enables him to find out what is a suitable means for attaining his chosen end and what is not.[49]

There is no presumption of perfect knowledge in this doctrine whatsoever. It does not require us to assume that people are infallible. Whether they are or not is a historical problem, not a praxeological one.

Despite these considerations, some Austrian economists are inclined to believe that the criticisms in Shackle's weak thesis apply to praxeology and not just to neoclassical general equilibrium economics. Thus, Lachmann has accused Mises of omitting uncertainty and expectations from his analytical framework.[50] And other Austrians have adopted the practice of referring to praxeology as "static subjectivism," contrasting it with "dynamic subjectivism." Such terminology blurs the distinction between praxeology (which concerns itself with the analysis of action) and conventional neoclassical analysis (which concentrates on the mathematical description of the conditions for general equilibrium or nonaction).[51] Praxeology recognizes that names and ends are not "given," but are rather objects of continuous, subjective reinterpretation. Within such a framework, hypothetical constructs based upon the presupposition of perfect knowledge and certainty have only limited value.[52]

Now let us pass briefly to Shackle's strong thesis: the matter of the kaleidic future. Here what may be claimed against praxeology is not that it fails to recognize the categories of uncertainty, time, and expectations, but rather that it fails to reckon with some of the more crucial implications of these. What praxeology fails to account for (insofar as Shackle's strong thesis is concerned)—and what thereby renders its inferences contingent rather than necessary—is how actors may effectively anticipate the future and, in particular, how they may anticipate future actions of other people, given that the future is "unknowable." If people cannot foretell the future, then even the broader, praxeological idea of "rationalism" (which assumes *some*—more than incidental—capacity for actors in the social world to select means appropriate to their chosen ends) is unfounded. Economics is obliged, in this

case, not merely to account for the use and dissemination of existing knowledge (as Hayek would have it), but to explain the possibility of entrepreneurial *prediction.*

Lachmann

A still greater challenge to praxeology is present in the writings of Ludwig Lachmann.[53] Lachmann combines the observations of both Hayek and Shackle to demonstrate what he regards as serious defects in Mises' method.

Lachmann accepts Hayek's description of praxeology as essentially formal and tautological, requiring for its fruitful application to catallactics supplementary hypotheses regarding the use and dissemination of knowledge. Thus, he views Hayek's 1937 essay as "an attempt to set Mises straight."[54] Nevertheless, Lachmann does not entertain empiricist views regarding the need for falsifiable conclusions. Instead, he adopts an unambiguously Schutzian, ideal-type approach, and stresses the need for the economic theorist to build his analysis upon assumptions as to the *typical* thought patterns and choices of acting people.[55] Thus, for Lachmann, too, economic theory cannot refer merely to *homo agens* and the incontestable fact of purposefulness. Instead, it must abandon its claims to universal validity and become a branch of history and applied sociology much as Weber had understood it. The pure logic of choice is supplemented by *verstehen* or "common sense" as a theoretical method, which is to serve in the identification of the means by which agents in the real world adapt their actions to match the ever-shifting preferences of their fellows.

Lachmann's most significant innovation, however, is his broadening of Hayek's thesis to allow for consideration of the implications of Shackle's kaleidic future. Alfred Schutz maintained that people could successfully employ understanding ("common sense") in anticipating the future actions of their fellows. While both Mises and Hayek implicitly endorsed this conclusion, Shackle refused to acknowledge a "common sense" solution to the problem of choice under uncertainty.[56] Purposefulness, in Shackle's view, is a chimerical notion: Choice is an entirely haphazard process and, therefore (contrary to the praxeological view), it merely appears or is presumed to be rational. Lachmann's embrace of the doctrine that the future is kaleidic thus leads him to doubt the value of praxeology, dependent as it supposedly is upon the assumption that the market harbors a "tendency toward equilibrium."

The particular problem Lachmann emphasizes is that of "divergent expectations." Hayek had stressed the importance of knowledge dissemination in expediting the market process, pointing out the need for market participants to be able to *learn* about the preferences of their fellow human beings and to adjust their actions accordingly. Knowledge dissemination in this con-

text might refer simply to the existence of market signals of profit and loss, the "criteria of success" by which the market judges attempts of agents to understand each other's wants. The problem of "divergent expectations" is more fundamental, for even if the market involves an adequate means for the dispersion of knowledge regarding the appropriateness of *past* actions, the learning involved is not a substitute for, and is in fact useless without, knowledge of the *future:* the "guidance" provided by profit and loss signals is cold comfort in a society marked by kaleidoscopic change. In short, there does not exist in the market any known "criterion of success" that can inform entrepreneurs *ex ante* of the future composition of consumer demands, i.e., of the composition of *plans* and *expectations*. Praxeological conclusions, it follows, are therefore applicable not to acting man or even to perceiving man but only to anticipating man, *homo divinans*. The first task of economics, then, must be to show that real people are of this species. Otherwise, its theories are of doubtful value.

Equilibration and Coordination

Central to the current controversy in Austrian economics is the debate concerning whether or not the market harbors a tendency toward equilibrium. The skeptical position, represented by Lachmann, is that no such tendency exists. It is opposed in particular by Kirzner, who attempts to defend the more traditional, praxeological position.

In this section, an attempt is made to show that there is a strictly logical sense in which action may be said to be equilibrating (rather than disequilibrating), which may be interpreted as implying a tendency toward equilibrium in markets with freely adjusting prices. However, the view defended here contrasts sharply with those of both Kirzner and Lachmann, who are criticized for adopting an analytical framework that is not consistently subjective. The praxeological notion of *equilibration* defended here is also distinguished from the empirical or "common-sense" notion of *coordination* suggested by Hayek, according to which the relevant "tendency" for theorists to be concerned with is one in which the "expectations of the people and particularly of the entrepreneurs will become more and more correct."[57]

To give equilibration a praxeological status is one thing; to show that it is a notion useful in drawing conclusions concerning the efficacy of particular economic arrangements and policies is another. The latter task is undertaken in the second part of the section. The conclusion reached is that, with reference to the purely logical concept of equilibration, it is possible to derive many fundamental results concerning conditions that promote successful action of the sort that Hayek had been so anxious to uncover.

Equilibration

In an autarkic economy composed of a single individual, or in any isolated exchange, all action is equilibrating in the *ex ante* sense; that is, it is expected by the actors involved to lead to the removal of felt uneasiness. In this context, "disequilibrating" action (again viewed in the *ex ante* sense) is impossible; it is the logical equivalent of "irrational" action. For the solitary individual, a tendency toward equilibrium means a tendency for action to systematically eliminate perceived sources of uneasiness. The continuing existence of action is proof that equilibrium proper is never achieved. It is equally proof that it is constantly being striven for. In the case of voluntary exchange between two individuals, equilibrium proper may be said to exist when there is no longer any basis for mutual *profit* (from the point of view of the actors) so that exchange ceases. This "final state of rest," to use Mises' terminology, is the relevant notion of equilibrium in the context of binary exchange. Equilibration in this context means a process by which opportunities for mutual profit are eliminated.

Things are more complicated in the marketplace where there are numerous individuals and indirect exchange. Here, the question of equilibration must address the influence of individual actions upon those not directly involved. In this case, a "tendency toward equilibrium" must be defined in terms of the categories of *entrepreneurial* profit and loss. The tendency is one in which entrepreneurial profits and losses are made to systematically disappear.

The praxeological notion of equilibration applied in catallactics can be summarized as follows: entrepreneurial profit and loss are subjective phenomena, having no "objective" basis outside of the minds of market participants. The praxeologist cannot, therefore, conceive of these phenomena apart from actions of market participants that at once imply imagination of and response to the phenomena in question. Thus, for every profit "opportunity," there corresponds an action that eliminates the opportunity (or proves that it was illusory).

Even where there is monetary calculation, only the event of an entrepreneur taking action allows us to distinguish (praxeologically) profits from compensation for opportunity costs and from the pervasive phenomenon of rent. It is necessary, therefore, for praxeology, when dealing with the unhampered market, to treat entrepreneurial profit opportunities as the unique products of the subjective valuations and understanding (*verstehen*) of actors who will seek their exploitation. Upon the fact of action, these "imagined" or "understood" (rather than "perceived") profits are, logically and temporally, destroyed. Thus, action leads to the systematic elimination of entrepreneural profit and loss; it is *equilibrating*. Wherever there is action, there is an imagined profit opportunity. Where there is no action, there are no such

imagined opportunities; and where there are no imagined profits, there is no action—that is, viewing things in a dynamic context, there is no basis for the modification of plans.

It must be stressed that equilibration makes no reference to the state of knowledge of market participants. The fact that new information constantly provokes imagination or acknowledgment of new profits and losses (and, hence, their renewed elimination) is recognized by praxeology. Nevertheless, this fact does not contradict the fact of equilibration: it only means that equilibration never ceases and is never replaced by a state of equilibrium proper. This is not to say that questions of knowledge acquisition are unimportant; only pure theory does not address these problems, which have to do with the question of *coordination*. So far, we have not claimed that equilibrating actions generally lead to *desired* or *anticipated* results.

In discussing market phenomena, praxeology does not group commodities according to any "objective" or technological qualities. When it speaks of apparently identical goods bearing different prices, it assigns the discrepancy to a difference in services offered by the goods or by circumstances of their sale or else it must refer to entrepreneurial actions that, in an unhampered market, eliminate the discrepancy. In other words, praxeology recognizes price discrepancies among *identical* goods only to the extent that such discrepancies may be identified with subsequent acts of successful arbitrage. In the same manner, entrepreneurial profit opportunities in general are ephemeral phenomena, formed in the imaginations of enterprising people and *defined* by the very actions that "eliminate" them.

It follows that praxeology must refrain from grouping the services of enterprising people according to "objective" standards, referring to earnings differentials as entrepreneurial profit. It instead assigns these differentials to the category "rent to labor services." Such rent may be said to include an element of profit only insofar as it actually gives rise to imitation by other individuals or to replication by the entrepreneur in question. As each such process of "profit seeking" ceases, remaining money surpluses (differences between money outlays and money receipts) are once again to be viewed as rent or other elements of compensation for opportunity cost. If, however, actors subjectively see in this surplus an element of profit or loss (by way of their imagination or understanding and the use of monetary calculation), they act again to replicate the profit or to eliminate the loss; if they do not so act, it means that neither profit opportunities nor available losses are understood to exist. Every entrepreneurial action therefore begins with the subjective imagination of a profit opportunity (or belief that a loss may be avoided) and ends with the destruction of the imagined opportunity. This, to repeat, is what praxeology means when it asserts that all action is "equilibrating," i.e., that action leads to the systematic elimination of profit and loss.

According to praxeology, competition involves the identification of what

had previously been regarded as service rent as "profit" and the resulting efforts to replicate the profit. If, following a series of competitive processes, monetary surpluses still accrue, a renewed sequence of entrepreneurial acts may or may not follow. The important fact is that these surpluses are subjectively (and hence praxeologically) identified with "service rents" or "costs" except when action redefines some portion of them as entrepreneurial profit and thereby proceeds to replicate (and, thus, to eliminate) that profit. It is a mistake to confuse profit with monetary surplus and to describe competition and the tendency towards equilibrium in terms of the "whittling away" of the latter. This procedure depends upon an objective definition of entrepreneurial profit; it looks upon it as an ideal-typical or empirical category to be identified historically by appeal to psychological understanding. In doing so, it confuses the "common sense" point of view adopted by historians and by entrepreneurs themselves with that view of things that is essential to the drawing of conclusions regarding the *necessary* implications or "pure logic" of action. So far as praxeology is concerned, if markets are unhampered (for example, by "rent-seeking" activities), there can be no "unexploited" profit opportunities or lacunae in the competitive process.

Kirzner, Lachmann, and the "Tendency toward Equilibrium"

Entrepreneurs succeed or fail in generating monetary surpluses to the extent that they succeed or fail in anticipating consumer actions. These actions are not predetermined by an unchanging set of preferences. According to praxeology, preferences do not exist at all apart from acts of choice. It follows that all entrepreneurial action is, as this article has insisted, not merely speculative, but *imaginative*. This is true even for "mere" arbitrage (meaning arbitrage as understood by the business community).[58] There is no listable set of profit opportunities (the basis for additions to monetary surpluses) existing independent of entrepreneurial actions because there are no consumer preferences apart from consumer actions taken in response to entrepreneurial offers. Thus, it is misleading to treat profit opportunities as having an objective basis (i.e., as existing "out there") because it is improper to treat consumer preferences as if they existed apart from realized acts of choice.

Israel M. Kirzner, in his analysis of entrepreneurship,[59] suggests the possibility, in the unhampered market, that action may fail to eliminate entrepreneurial profit and loss systematically, i.e., may fail to equilibrate. This impression results from Kirzner's use of the metaphorical, "common sense" notion of profit opportunities existing "out there" in some objective sense independent of their perception or discovery by enterprising individuals. Kirzner's approach has encouraged the treatment of equilibration as an em-

pirical matter subject to doubt. It is necessary to challenge such interpretations insofar as they confuse necessary features of action with contingent ones and imply that action in the unhampered market may be "disequilibrating" or "insufficiently equilibrating" and that praxeological theorems that presume a "tendency toward equilibrium" are necessarily open to empirical falsification.

The category of objective profit opportunities is praxeologically meaningful only as an *ex post* concept, in which case there is no question of undiscovered opportunities.[60] Yet, the contrary is implied within the framework of Prof. Kirzner, who is led to adopt the metaphorical notion of "objective" profit opportunities existing *ex ante* (and hence capable of going undiscovered) in order to counter the opinion that entrepreneurial innovation is disequilibrating. By treating profit opportunities as existing "out there" and by positing their eventual "discovery," Kirzner is able simply to dismiss the innovative (and allegedly disequilibrative) aspects of entrepreneurship.[61] In doing so, he is drawn uncomfortably close to the Robbinsian outlook according to which entrepreneurship merely involves the "efficient" administration of *given* means and ends, that is, the exploitation of given profit opportunities.

In fact, it is unhelpful to view, as general equilibrium theorists do, the direction in which market processes are aimed as one that can be represented by a stable system of simultaneous equations. This view entirely neglects human imagination and innovation. It refers to a world where the *means* and *goals* of acting people are fixed, so that a hypothetical "optimal solution" can be defined. This kind of equilibrium solution presupposes definite limits to entrepreneurial achievement. Nonetheless, Kirzner apparently accepts the static concepts of Pareto optimality and general equilibrium as standards against which entrepreneurial actions must be judged. It is only in such a context of "existing" or "given" opportunities that profitable actions can be relegated to the category of "arbitrage," while actions *not* undertaken can be related to "missed" profit opportunities.

More fundamentally, whenever one speaks of unexploited opportunities for profit, one departs from the domain of theoretical science and exemplifies the perspective of the historian or would-be entrepreneur. Kirzner's "profit opportunities" exist in the mind of the analyst but are somehow divorced from "the already constituted meanings of active participants in the social world."[62] In other words, the ends–means framework recognized by the analyst differs from that recognized by market participants. The procedure of injecting an independent "imagination" into one's analytical framework takes its revenge by begging important questions, (1) Why should equilibration be a feature of the real world (where actors may be chronically "unalert")? (2) Do praxeological theories that presume equilibration in fact depend upon the soundness of certain empirical assumptions?[63] In contrast, the praxeolog-

ical approach does away with the question of "alertness" as it disallows the category of "unexploited profit opportunities."

Subjectively defined, equilibration refers to the systematic exploitation of profit opportunities *as they exist in the understanding of market participants.* It makes no reference to any set of "objective" opportunities as determined by the conjectures of the social scientist. Either the set of opportunities is delimited in this strict, praxeological manner, or it is not scientifically delimitable at all.

The claim that all action is equilibrating does not imply that actors are ever actually in a state of equilibrium proper. The concepts "equilibrium" and "disequilibrium" have for the praxeologist a purely heuristic significance. Theorists wishing to explain a process of market price adjustment require a framework upon which to hang the components of their analysis. Thus, they adopt a terminological expedient: they refer to the outmoded price, a price that has become incompatible with changes in the apprehended ends–means framework, as a "disequilibrium" price. The appropriate price, that which ineluctably replaces the disequilibrium price as a consequence of actions manifesting the revised understanding of means and ends, is labelled the "equilibrium" price. The process of price adjustment can only be comprehended by viewing it as a dynamic process of prices which are at once equilibrium prices in relation to those that they have replaced and disequilibrium prices in relation to those that will follow. Because individuals' understandings of ends and means are in constant flux, prices undergo constant revision. But their adjustment is always in the direction of, and never away from, equilibrium, so long as it reflects free entrepreneurial acts. As each price adjustment is itself a vehicle of information about means and ends, it follows that the adjustment of one price may lead to the obsolescence of others. The statement that action is "equilibrating" merely refers to the logical proposition that action continuously accounts for changes in the imagined framework of means and ends, i.e., changes in the structure of imagined profit opportunities.

Ludwig M. Lachmann, who questions the claim that the market harbors a tendency toward equilibrium, takes a view just opposite Kirzner's by embracing the Schumpeterian argument that entrepreneurial action is mainly disequilibrating. However, like Kirzner, Lachmann attempts to address the issue of equilibration by employing Walrasian (or Robbinsian) criteria. Equilibrium is viewed by him, not as the focal point of a heuristic lens through which all action can be analyzed, but as a determinate state of affairs defined with respect to some objectively given set of exploitable means and ends. Of course, with respect to such a static ideal, many actions (and innovative actions especially) are disequilibrating. They confound achievement of the equilibrium "solution" by altering the set of "existing" means and ends. People's imaginations equip them to extend the boundaries of the possible. Given that

this is so, the idea of equilibration or of a tendency toward equilibrium ought to refer, not to a tendency to approach some *given,* concrete state, but to the tendency of plans to be modified in a systematic way according to the changing imagination, aspirations, and capacities of market participants. Praxeologically, one can abstract from such ever-present change, thereby forcing the means—ends framework to stand still. However, by doing so, one does not succeed in identifying the prerequisites for the achievement of general equilibrium. On the contrary, one *defines* a state of nonaction wherein equilibrium in one sense is already achieved, but, in another, equally meaningful sense is forever out of reach. In other words, the only *meaningful* sense in which action can be said to be equilibrating is the dynamic one which assumes continually changing means and ends and the *absence* of equilibrium proper. In contrast to this subjective, praxeological view, Lachmann's position, like Kirzner's to which he is in part responding, is distinctly nonsubjective: entrepreneurship can only be disequilibrating in the main with respect to a nonsubjective, Walrasian, or static vision of some general equilibrium "target."

The praxeological view just presented attempts, where those of Kirzner and Lachmann have failed, to make sense out of the idea of a tendency toward equilibrium while totally rejecting Walrasian criteria and their implications. By adopting a strictly subjective approach, praxeology also immunizes itself from Lachmann's skepticism (insofar as the *logical* validity of its inferences is concerned—the empirical question of coordination must be addressed later on), preserving the apodictic status of its conclusions which rest upon the premise that entrepreneurial action is equilibrating.

To summarize, "general equilibrium" is a moving target. Its location is determined, not by any objective conditions, but by the confines of people's imaginations. In order for the target to be reached, people either must become perfectly dull or they must become perfectly content. In either case, it must be true that they have exhausted their abilities to conceive of new means for the elimination of uneasiness (the general end of all action). So long as people are neither completely dull nor completely content, they must necessarily act. To ask whether general equilibrium can ever be achieved is therefore to ponder the exhaustibility of people's imaginations. It is to wonder whether innovation and unexpected change will disappear. This is an area of inquiry that concerns philosophy of mind and not praxeology, which is concerned with action. All that can be said with certainty is that people, in acting, employ imagined means to their fullest extent (action is *equilibrating*) and that, if their actions are successful, their imagination and understanding are not based upon illusion and result in increased well-being (action is socially *coordinating*).

Denial of the existence of coordination is in fact the more important part of the current assault upon the praxeological method. We are now prepared

to consider this empirical issue. Only first it is necessary to respond to the charge that the praxeological concept of equilibration is "tautological," "empty," and therefore useless as a means for gaining practical knowledge about the real world.

Prerequisites for Successful Action

The concepts of monetary surplus and loss are based on economic calculation using market prices. Such calculation is possible only in an order characterized by exchange, the social division of labor, and private ownership of the means of production. With the aid of monetary calculation, entrepreneurial profit and loss—the stimuli that determine the direction of equilibrative adjustments—become *social* phenomena distinct from the *ex post* categories of psychic profit and loss. Calculation makes possible a link between equilibrating action and entrepreneurs' satisfaction of the wants of others. It allows entrepreneurs to perceive the wants of others as if they were the *means* toward fulfillment of their own *ends*.

Monetary surplus represents a reward to enterprise for the successful satisfaction of consumers. But this *ex post* surplus is not itself to be confused with the *ex ante* concept of entrepreneurial profit: it is a confirmation of the fact that entrepreneurs' imagination and understanding (of means and end, *including* their own, possibly unique, capabilities) were not based upon illusion or incorrect anticipation of the future. Entrepreneurial profits exist, as it were, only at the "margin" of action, not before or after.

The crucial point is that monetary calculation provides essential guidance for entrepreneurial understanding and action. In the absence of such calculation, the imagination of profit opportunities, i.e., entrepreneurial speculation, would indeed become an entirely haphazard process, bearing no meaningful relationship to the state of consumer preferences: "Monetary calculation is the guiding star of action. . . . [Man] calculates in order to distinguish the remunerative lines of production from the unprofitable ones, those of which the sovereign consumers are likely to approve from those of which they are likely to disapprove."[64]

Without monetary calculation, entrepreneurs would lose vital evidence with which to form their conjectures and would not even be able to judge whether their *previous* conjectures were accurate or not. They therefore would be without means for informed direction of their future actions. It is only when market prices exist that calculation, the meaningful ascertainment of profit or loss, success or failure, is possible. In particular, the entrepreneurial function of subjectively distinguishing "profit" from rents and other factor returns is not conceivable without market prices: "The different sources of income can be separated only by referring to these incomes *as determined by prices on the market.*"[65]

Only in this way can an entrepreneur estimate implicit (opportunity) costs and thereby determine that, for example, "he is suffering a loss in his business." Then, "If the loss continues . . . he will be impelled to shift his various resources to other lines of production. It is only by means of such estimates that an owner of more than one type of factor . . . can determine his gains or losses in any situation and then allocate his resources to strive for the greatest gains."[66]

The existence of market prices, which itself depends upon private ownership and exchange of the means of production, is therefore a necessary prerequisite to economic calculation.[67] This is the fundamental conclusion of the praxeological critique of socialism. The necessity (*not* sufficiency) of market prices for entrepreneurial success, including entrepreneurial calculation and understanding, can be ascertained without appeal to other, necessary assumptions regarding the use and dissemination of knowledge. Its truth does not depend on the "alertness" of entrepreneurs in the unhampered market. It derives from consideration of the pure logic of the equilibration process: in the context of market prices, this process *might* promote coordination. Otherwise, an essential ingredient is lacking, for which there are no promising substitutes.

Many other important, practical conclusions of praxeology are based upon the insight that interference with market prices may disrupt enterprise and competition. Such interference acts to lessen the potential for successful entrepreneurial adjustments in the affected markets. Every act of free exchange provides clues to the preferences and, indirectly, the ends, of actors engaged in the exchange. Market prices convey information reflecting understanding derived through a continuing process of such exchanges. Such prices are essential instruments by which entrepreneurs, employing *verstehen* or common sense, attempt to form judgments of consumer desires using past preferences as evidence.

By the same token, interference with market prices may also corrupt entrepreneurial understanding, causing the disappointment of expectations and fostering discoordination. Any nonmarket price—a price fixed by fiat rather than through voluntary exchange—confronts numerous entrepreneurs, not with potentially useful information, but with a lie; it presents to them a facade of preferences and priorities which in fact have no basis in the valuations of market participants. Consumer uneasiness may even be aggravated by entrepreneurial actions guided by nonmarket prices. Hence, the praxeological concern with this type of government intervention.

Praxeology does not attribute the failure of socialism to its inability to achieve the conditions of static equilibrium: on the contrary, socialism cannot succeed, according to praxeology, because entrepreneurial *action* (which includes also the speculative decisions of central planners) cannot succeed without the aid of market prices. Moreover, praxeology sees interference with or

absence of competitive market prices as a key to explanation of the failure of many *particular* market processes.[68] For example, the trade cycle is explained as a phenomena initiated by disruption of rates of interest from their "natural" levels, i.e., the levels that reflect consumer time-preference and that would prevail under a system where banks (including central banks) functioned purely as intermediaries of voluntary savings. An artificially lowered rate of interest and accompanying expansion of credit necessarily leads to the distortion of a wide range of other market prices (by provoking overestimation of the real supply of loanable funds). The *necessary* consequences that arise from this include widespread alteration of profit and loss signals and a greater channeling of entrepreneurial activity into undertakings that eventually prove unsustainable.[69]

In its references to the effects of intervention, praxeology naturally engages in conjectural history. Nevertheless, whenever the described intervention is present, all of the consequences that praxeology attributes to it will follow. It is the task of history proper to determine whether any actual event corresponds to a certain hypothetical counterpart examined by praxeology. This matter of historical identification is, *contra* Hayek, the only "question of fact" to which praxeological conclusions, including ones that (as we have seen) are relevant to catallactics, need to defer.[70] There is no question here of any need for or possibility of "verification" or "falsification" of praxeological theories either in the manner suggested by positivists or by appeal to common sense.

We have still to deal with the implication, present for instance in Hayek's essay, that the results of praxeology, although varied and profound, are nevertheless "tautological" and, therefore, of no independent, practical significance. Here, it may simply be answered that if, in fact, praxeological results are tautologies, then they are tautologies of great importance. In a sense, they resemble tautologous statements of the sort: $2 + 2 \neq 5$. This statement, one might claim, provides no fresh knowledge of the real world. Nevertheless, it is essential to insist upon its truth whenever anyone is bold enough to deny it. Similarly, the conclusions of praxeology would perhaps be of little value were there not people anxious to defy them, for example, by seeking to avoid the harmful consequences of inflation by means of price controls, by throwing obstacles in the way of rivalrous competition and entrepreneurial innovation, or by advocating socialism as a means for the rational allocation of resources. The demonstration of the inappropriateness of such programs is the prime contribution of (praxeological) economic theory to human welfare. It is a contribution of more than merely verbal significance.

Thus far, we have seen that many praxeological conclusions (relevant to catallactics) *do not* depend upon assumptions about knowledge, alertness, and entrepreneurial understanding; they deal with people *as such* and do not require appeal to common sense or empirical assumptions. We have also seen

that, although logically necessary, conclusions derived by praxeology are not intrinsically empty or without practical importance. However, a complete answer respecting this last point cannot be given until the issue of *coordination* is addressed. We have not yet entirely escaped the claim that praxeology may, after all, be useless.

The "Common Sense" of Coordination

As used in this article, *coordination* and *equilibration* are not synonyms. Coordination, which depends upon the correctness of entrepreneurial expectations, is not a praxeological concept. While we cannot think of free action as nonequilibrating, we can conceive of actions that are noncoordinating. In order to establish whether a particular concrete state of affairs exemplifies coordination or the compatibility of plans, social scientists must resort to the common-sense method of specific understanding employed in historical analysis. They must therefore abandon the strict subjectivism of praxeology and allow themselves to impute specific ends and aspirations to individuals. Then, in order to determine whether the actions of individuals are compatible with one another, they contrast them with an ideal-typical "plan" of their own construction. In other words, they treat the actions of other individuals as means and judge their efficacy with regard to a set of imputed ends.

To maintain that individual plans can be coordinated is to affirm the existence of social causation. The idea that such causation operates is related to the belief that social actions are or may be largely *successful.*[71] Praxeology conceives of a sequence of social events as coordinated insofar as they result mainly in psychic profit rather than psychic loss. The notion of coordination thus becomes a corollary to the praxeological construct of the progressing economy.[72].

But to say that progress actually exists requires an appeal to *understanding:* "Whenever economic history ventures to classify economic evolution within a certain period according to the scheme stationary, progressing, or retrogressing, it resorts in fact to historical understanding [*verstehen*] and does not 'measure.'"[73] There can thus be no question of an answer to the question of coordination in any sense admitting to either "apodictic certainty" or to empirical "falsifiability": psychic profit and loss are subjective, immeasurable phenomena.

A progressing economy requires, first of all, that entrepreneurs are neither so dull nor so content as to never imagine opportunities for profit at all. Otherwise, there would be no innovation or accumulation, and society would settle into the praxeological fiction of the "evenly rotating economy." In such a situation, coordination is complete in the sense that there is equilibrium, but it is obviously not coordination in the sense of compatibility of plans, for the evenly rotating economy presupposes the absence of true plans aimed at

the elimination of felt uneasiness. It involves, in place of changing plans, the cyclical mechanical motions of lifeless automatons.

Ignoring the extreme case of the evenly rotating economy, coordination requires also that there be adequate entrepreneurial *foresight;* an ability to anticipate future change and to thereby avoid psychic disappointment. Here is where expectations enter into the analysis. It is also where the doctrines of Shackle and Lachmann assert themselves concerning the kaleidic character of the future.

In a world in which the future is truly kaleidic, coordination and its counterpart, economic progress, are not possible. Action in such a world, even in the unhampered market, leads not to "spontaneous order," but to chaos. Speculation becomes a matter of sheer guesswork, useless and counterproductive—and this will be the case even where there is a freely functioning price system. Under such conditions, action cannot truly be said to be "purposeful" at all, for actors' belief that they are able to achieve their purposes can only be an illusion. Praxeology would in this case be a body of tautologous assertions of academic interest only.

Thus, for example, although the existence of market prices is *necessary* for coordination because it provides the only reliable means for people's actions to be guided by the wants of others, it may not be *sufficient.* It could be that anticipations are generally disappointed, so that wealth does not accumulate. Coordination and its representative, economic progress, will then be impossible even with an unhampered price system.[74] Such possibilities form the crux of the Shackleian challenge to praxeology.

On the face of things, it is easy to sympathize with Kirzner's desire to dismiss the divergent expectations or kaleidic future hypothesis. "Paris," Kirzner observes, "gets fed." This seems to be an appropriate empirical answer to what is in essence an empirical assertion. It might easily be supplemented by a litany of trite observations regarding the accumulation of capital, general improvement of well-being, remarkable scientific and technical achievements, etc., that have been sponsored by the capitalist system. Such a response is also inviting because it suggests that praxeology is not, after all, at loggerheads with historical understanding; that, in general, markets *do* generate order whereas interference tends to have the destructive effects that praxeology predicts. Nevertheless, the response, based as it is upon appeal to common sense, is always vulnerable to rejection. Those who understand by "order" and "progress" something other than what Kirzner has in mind when he refers to the arrival of food at Paris may freely disagree with him. In so doing, they do not, of course, deny the praxeological notion of equilibration. They merely claim that this notion—and the central role it assigns to the existence of market prices—evade the fundamental issues.

In short, praxeology, having broken away from the "fully informed" schema of neoclassical economics, finds its conclusions challenged by alter-

native views of precisely the opposite extreme. Its new opponents claim the future to be marked by complete ("radical") uncertainty; a kaleidic future in which action is futile and purposefulness is merely an illusion.[75] If, in fact, this view of reality is correct, then the theories of praxeology are, to repeat Hayek's words, merely "formal" and "tautological." They cannot then tell us anything of practical value, for they are based upon inferences drawn from a faulty premise, namely that qualitative regularity and causality exist in the sequence of social events. The truth, it is suggested, is just the opposite: the future is unknowable; there is no link between it and the past. Expectations are bound, as often as not, to "diverge" and, therefore, to be disappointed. Choice—whether informed by market price signals or not—can only be haphazard under these conditions. Action may make life more and more chaotic. It generates, at best, merely a stationary economy—one with efforts at improvement continually frustrated—and certainly not a progressing economy. It would be just as well if people did not act (i.e., adjust their plans) at all.

Implications of the "Kaleidic Society"

Exponents of the doctrine of the kaleidic society have suggested that the praxeological method presupposes a thesis of historical determinism. They believe that in implicitly rejecting their view, praxeology assumes a rigid link between the patterns of people's actions in the present and their patterns in the future. Such an assumption contradicts the Austrian notion of purposefulness and involves as well a tacit denial of free will.

This representation of praxeology is based upon a serious confusion of its tenets with those of general equilibrium analysis. Moreover, it reveals a failure to appreciate the distinction, recognized by praxeology, between "fatalist" determinism and "activist" determinism.[76] The doctrine of fatalist determinism maintains that the course of social events is beyond human control; its thesis, to the extent that it is accepted, "paralyzes the will and engenders passivity and lethargy among the human species."[77] There is no place in this doctrine for purposeful action.

Activist determinism refers to "the insight that every change is the result of a cause and that there is a regularity in the concatenation of cause and effect."[78] It is distinct from fatalist determination (and therefore from materialism and from what Karl Popper refers to as the "nightmare" of physical determinism[79]) because it allows for the category of *mental* (or social) causation. People's actions, according to the thesis of activist determinism, are "determined" by the ideas (ends, knowledge, and understanding) they hold. But praxeology treats these ideas as ultimate data; it does not seek to explain them by tracing them back to prior causes. This is how praxeology separates itself from psychology.

What the current critics of praxeology assert is this: If there is *no* regularity or uniformity in human ideas, if the future is marked by kaleidic change, then people cannot anticipate the actions and requirements of their fellows. Speculation therefore becomes haphazard. Action within society, since it necessarily involves speculation about other people's reactions, although it is believed to be purposeful, is vain. Even routine actions presuppose routine behavior on the part of others. All life in society is thus a random, irrational struggle.

This thesis amounts to a denial of mental or social causation or of activist determinism. Praxeology cannot "prove" this denial to be unfounded. It treats the existence of causality, including social causality, as an ultimate given, a priori even of human purposefulness:

> The philosophical, epistemological, and metaphysical problems of causality and of imperfect induction are beyond the scope of praxeology. We must simply establish the fact that in order to act, man must know the causal relationship between events, processes, or states of affairs. And only so far as he knows this relationship, can his action attain the ends sought. We are fully aware that in asserting this we are moving in a circle. For the evidence that we have correctly perceived a causal relation is provided only by the fact that action guided by this knowledge results in the expected outcome.[80]

The questions of coordination and the possibility of progress are one and the same, and both have to do with the existence of social causation. The doctrine that the future is kaleidic, if it means anything at all, means the denial of spontaneous order, coordination, progress, and, fundamentally, social causation, for the first of these are merely manifestations of the last.

No evidence can dispose of the suggestion that the future is kaleidic and that social causation is lacking. Yet current efforts of Austrian economists include attempts to develop a theory of entrepreneurial prediction or understanding that might resolve the problems implied by the uncertainty of the future. This seems to be part of the intent of Rizzo and O'Driscoll in their book *The Economics of Time and Ignorance*.[81] Such work may uncover useful evidence concerning conditions that encourage entrepreneurial success. Nevertheless, it is not likely to satisfy critics who maintain that the future is beyond the grasp of entrepreneurial ability. Any efforts of this new Austrian "research program" to reconstruct praxeology on the basis of a theory of knowledge would in this sense be misguided. The problem is that any explanation of entrepreneurial prediction and understanding must make reference to ideal-typical representations of human thought patterns and preferences (as are employed, for example, in Schutz's work). Such representations already *presuppose* the regularity and uniformity rejected by those who hold the future to be kaleidic:

> If an ideal type refers to people, it implies that in some respect these men are valuing and acting in a uniform or similar way. When it refers to institutions, it implies that these institutions are products of uniform or similar ways of valuing and acting or that they influence valuing and acting in a uniform or similar manner.[82]

Those who consistently believe Shackle's doctrines are bound to view explanations of human understanding that employ ideal-type constructs as unjustified and question-begging.

The only other recourse open to those who seek an empirical or falsifiable refutation of Shackle's thesis is to attempt an explanation of social causation itself; that is, an explanation of how a person's actions may bring about a particular set of responses on the part of other people. To pursue such a course of study would require one to entertain a belief in strict behaviorism. Attempts to develop a theory of social causation would degenerate into a search for social "responses" to entrepreneurial "stimuli." Were such attempts able to succeed, they could at best provide a basis for a theory, not of people's actions, but of their *reactions,* and would, therefore, encompass a denial of purposefulness. Any such research program must ultimately collapse under the weight of its own self-contradictory presuppositions.[83] But to the extent that it is seriously undertaken by Austrian economists, it would as thoroughly undermine their school's viewpoints as would wholesale adoption of Shackle's views.

Although evidence cannot refute the hypothesis that the future is kaleidic, reason can expose the contradictions that must result from its consistent embrace. Praxeology has employed this approach in the past in criticizing the doctrines of historicism and logical positivism.

The idea that social change is kaleidic implies, as has been shown, the denial of both fatalist and activist determinism. This leaves only the alternative of complete indeterminism: the social events of the future have no necessary connection with those of the past. In such a world, people would have no reason to act. They would have no reason to believe that any particular action (insofar as its success depends upon the valuations of other people) would lead to any particular, desired state of affairs. They could therefore have no basis for preferring one set of actions to another. Such a situation would constitute no less a "nightmare" than Popper's physical determinism. It would, as its proponents suggest, demolish the categories of "order" and "coordination"; but it would also render meaningless the idea of free will. Human will, in order to be useful, must be able to gain some degree of command over its circumstances.

Consistently applied, the doctrine of the kaleidic society must also lead to the abandonment of all quests for knowledge about human action. In the

world that it postulates, both theory and history would be useless. People could learn nothing from the past. Moreover, its meaningful investigation would be impossible:

> If that which is becoming were altogether independent of the past and in no way related to it not only would historic events have no connection with each other but we should not have any extended events at all. We cannot speak of any historic process unless there is continuity, unless there are elements of identity between the present and the past.[84]

Moreover, "to deny that the past molds the future is to deny that there is any continuity or any process."[85] Thus, the search for theory, i.e., for necessary and universal patterns in human action, would be fruitless.

Oskar Morgenstern also has argued that the assumption of radical uncertainty is incompatible with the pursuit of theoretical knowledge:

> Next to the assumption of complete, unlimited foresight, there must be rejected, too . . . the assumption that there exists no foresight at all. That would mean complete [chaos] in the conduct of men. . . . Such an assumption would make the existence of the economy just as impossible as that of economic theory which, as does all science, has to posit a minimum of uniformity in the world. That there is no kind of foresight would be the equivalent to the assertion that acts of the individuals could not be arranged at all. . . . So it can be maintained that some positive degree of "knowledge" as to future behavior, that is, one with more or less established assumptions about the future, is absolutely necessary for the economy.[86]

All theory presupposes the existence of a degree of qualitative regularity and uniformity in the concrete phenomena of reality. The classification of events and institutions presupposes such a belief; so, indeed, does the very existence and use of language. Thus, it is utterly contradictory for upholders of the doctrine that the future is kaleidic to involve themselves in theoretical discussions, especially when such discussions refer to institutions such as banks or money or to classes of events such as the trade cycle or inflation. Such categories, including all ideal-typical constructs employed in economic history and in the hypotheses of social science, have meaning only by virtue of an appeal to the regularity and continuity of events in the social world. Thus, it is futile to attempt, *pace* Hayek, to explain "why [people] should ever be right." Rather, acceptance of the fact that people can be right is a requirement imposed by the rules of reason themselves. Given this a priori fact, we may proceed directly to consider "why people commit mistakes" without troubling ourselves with attempts to investigate the actual mechanisms of social causation.

Of course, in making these points, I do not pretend to refute the position of an extreme nihilist who would completely deny a place for causality in the sequence of social events. I merely observe that, to be consistent, such a person would have to refrain from making assertions regarding the value and significance of particular market arrangements. More fundamentally, people who wish to deny that there is causation in the social world need to explain their *own* participation in the market and in the discussions of economic theory.[87]

The logical alternative for believers in kaleidic change who seek to engage in economics is to adopt a tempered version of the kaleidic society thesis. In this case, they might maintain that the future is only *potentially* kaleidic and that history does witness temporary periods of relative stability and even progress. In the midst of such intervals, institutions exist that possess a degree of permanence. Economic theory may deal with these institutions and with the human actions that give rise to them, although it must recognize that its conclusions are never a description of necessary or universally valid truths. This outlook, of course, defines historicism. There is no point in repeating here the familiar epistemological arguments that oppose it.[88]

To summarize: Praxeology cannot refute historicism or any other variant of the thesis that the future is unconnected with the past. It treats the category of causality, including mental and social causality, as a priori. It assumes a world marked neither by perfect certainty nor by kaleidic change and continually diverging expectations. In other words, it takes as given a set of conditions that make *purposeful* human action possible, and it then asks what circumstances hamper, and which ones assist, the likelihood of agents' success. In proceeding in this manner (instead of seeking to actually explain "why men should ever be right"), praxeology takes the only route available to theory that avoids self-contradiction. It adopts as its starting point—but does not try to explain—"the actual persistence of human habits and institutions" that "is one of the great facts of history which we cannot ignore if we are to retain any understanding."[89]

A stalwart might still argue that praxeology, like Euclidian geometry, is purely formal and arbitrary rather than necessarily true. On this view, praxeology may not apply to any actual experience of social reality. But expressing the argument in this manner immediately reveals its absurdity, for to imagine a social "experience" to which the logic of action does not apply is to imagine away social experience altogether. This is because the idea of "experience" itself presupposes the categories of causality and regularity on which praxeology depends: "In a universe lacking [regularity] there could not be any thinking and nothing could be experienced. For experience is the awareness of identity in what is perceived; it is the first step toward a classification of

events. And the concept of classes would be empty and useless if there were no regularity."[90]

So long as there can be meaningful experience of social phenomena, then this experience will be one for which the deductions of praxeology are valid. To imagine otherwise is to imagine a social environment free from meaningful experience altogether. Thinking and acting people cannot consistently regard their world as one in which the laws of praxeology are mere formalities.

Of course, it may be that a world exists in which praxeology would not provide useful knowledge. But this would not be a world in which either purposeful action or economic knowledge mattered or would be possible. The observations of any "nonpraxeological" economics, even if valid, could not serve any useful purpose. Furthermore, theories of "knowledge dissemination" and of the "market process," however informative they may be, can no more "replace" praxeology than they can undermine the doctrine of the (radically) kaleidic society. Nor should they be viewed as prerequisites to the drawing of valid praxeological conclusions.

Notes

1. For evidence of Shackle's influence, see *Method, Process, and Austrian Economics,* Israel M. Kirzner, ed. (Lexington, Mass.: Lexington Books, 1982).

2. See *Human Action,* 3rd ed. (Chicago: Henry Regnery, 1966), chapters I–VI; *Epistemological Problems of Economics* (New York: New York University Press, 1981); *Theory and History* (New Haven: Yale University Press, 1957); and *The Ultimate Foundation of Economic Science* (Kansas City, Kans.: Sheed Andrews and McMeel, 1978).

3. Ludwig M. Lachmann, "Ludwig von Mises and the Extension of Subjectivism," in Kirzner, *Method,* p. 32.

4. Prof. Lachmann also refers to his own method as praxeology. In this study, the term *praxeology* is used in the narrower sense employed by Mises and Rothbard as well as by Kirzner in *The Economic Point of View* (Kansas City, Kans.: Sheed and Ward, 1976).

5. Cf. Murray N. Rothbard, "Praxeology: The Method of Austrian Economics," in *The Foundations of Modern Austrian Economics,* Edwin G. Dolan, ed. (Kansas City, Kans.: Sheed Andrews and McMeel, 1976), pp. 19–39.

6. *Epistemological Problems,* pp. 197–98.

7. On empiricism and the "problem of induction," see Errol Harris, *Hypothesis and Perception* (London: George Allen & Unwin, 1970), chapters I–IV. Cf. also Hume's *Treatise of Humane Nature,* book I, part III, section VI.

8. *Epistemological Problems,* p. 5.

9. See Brand Blanshard, *Reason and Analysis* (La Salle, Ill.: Open Court, 1973), p. 82.

10. See Lawrence H. White, *The Methodology of the Austrian School of Economics* (Auburn, Ala.: Ludwig von Mises Institute, 1984), p. 7.

11. William James, *The Principles of Psychology* (New York: Dover, 1950), p. 8.

12. Murray Rothbard, "In Defense of 'Extreme Apriorism'," *Southern Economic Journal* XXIII (3) (January 1957), pp. 314–20.

13. *Epistemological Problems,* p. 30.

14. See William P. Montague, *The Ways of Knowing* (London: George Allen & Unwin, 1925), p. 90: "The truth of a given proposition is proved to be necessary when its contradictory implies self-contradiction." As a general point, it should be noted that the positivist assertion that all a priori statements are either tautologous or meaningless is itself a priori and therefore, by their criteria, meaningless (since it is by no means a tautology). See Blanshard, p. 240. The source of the argument from contradiction is Aristotle's *Metaphysics,* Book Γ, Chapter 3.

15. *Contra* John B. Egger. See "The Austrian Method," in *New Directions in Austrian Economics,* Louis M. Spadaro, ed. (Kansas City, Kans.: Sheed Andrews and McMeel, 1978), p. 20.

16. But see Marion Bowley, *Nassau Senior and Classical Economics* (New York: Octagon Books, 1964), chapter I, on Senior's anticipation of the praxeological method.

17. Richard Langlois says, regarding the notion of "apodictic certainty," that "the post-Humean mind rebels at the hubris of such a claim" ("Austrian Economics as Affirmative Science: Comment on Rizzo" in Kirzner, *Method,* p. 82). According to defenders of praxeology, such "post-Humean" thinking is itself problematic. It involves a denial of necessity and causation that, taken seriously, would lead to the abandonment of all theoretical and historical pursuits. (Cf. Morris Cohen, *The Meaning of Human History,* pp. 64, 101–2). We shall see that the controversy in Austrian economics is a direct consequence of misguided attempts to apply such "post-Humean" thinking to the theoretical science of human action.

18. See Weber's essay "'Objectivity' in Social Science and Social Policy" in *Methodology of the Social Sciences,* Edward Shils and H.A. Finch, ed. (Glencoe, Ill.: Free Press, 1949), pp. 49–112.

19. We shall see how this view applies to the concepts of entrepreneurial profit and equilibration in the section "Equilibration and Coordination."

20. *Epistemological Problems,* pp. 180–81.

21. Ibid., p. 149. See also Mises, "The Treatment of 'Irrationality' in the Social Sciences," *Philosophy and Phenomenological Research* IV (4) (June 1944), pp. 527–53.

22. Frank Knight, "The Limitations of Scientific Method in Economics," in *The Ethics of Competition and Other Essays* (New York: Harper Bros., 1935), p. 25.

23. See Ludwig Lachmann, *The Legacy of Max Weber* (Berkeley: The Glendessary Press, 1971), p. 25.

24. Thus, in his *Methodology of the Social Sciences,* Weber writes:

> Pure economic theory . . . utilizes ideal-type concepts exclusively. [It] makes certain assumptions which scarcely ever correspond completely with reality but which ap-

> proximate it in various degrees and asks: how would men act under these assumed conditions *if* their actions were entirely rational? It assumes the dominance of *pure economic interests* and precludes the operation of political or other non-economic considerations. (pp. 43–44) (emphasis added)

Compare this to Mill's summary of the classical method: "Political economy . . . reasons from *assumed* premises—from premises which might be totally without foundation in fact, and which are not pretended to be universally in accordance with it." (John Stuart Mill, *Essays on Some Unsettled Questions of Political Economy,* 2nd ed. [London: Longmans, Green, Reader, and Dyer, 1874], p. 137).

25. Mises, *Notes and Recollections* (South Holland, Ill.: Libertarian Press, 1978), p. 122. See also *Epistemological Problems,* pp. 74–79.

26. *Loc. cit.,* p. 159.

27. English translation by George Walsh and Frederick Lehnhart (Evanston, Ill.: Northwestern University Press, 1967), pp. 242–45.

28. Ibid., p. 244.

29. Ibid., p. 245. Mises refers to Schutz's book in *Epistemological Problems* (pp. 125–26fn.), but proposes to "reserve dealing with [Schutz's] ideas for another work." The promised discussion has never appeared in print.

30. From the reprint in Maurice Natanson, *Philosophy of the Social Sciences* (New York: Random House, 1963), p. 342 (emphasis added).

31. Ibid., p. 345.

32. *Epistemological Problems,* p. 77.

33. Mises, *Ultimate Foundation,* p. 43 (emphasis added).

34. Mises, *Theory and History,* p. 311.

35. Ibid.

36. Mises, *Ultimate Foundation,* p. 49.

37. Ibid., p. 50.

38. Mises, *Theory and History,* p. 311.

39. Hayek's "Economics and Knowledge" was first published in *Economica* IV (New Series, 1937), pp. 33–54, and reprinted with revisions in *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), pp. 33–56. All references are to the reprint.

40. Hayek only recently made public his rejection of the praxeological method. (See "An Interview with F.A. Hayek," Cato *Policy Report* 5, February 1983, pp. 6–7.) Nevertheless, he has long maintained that his intention in 1937 had been to show Mises the deficiencies in the praxeological approach.

41. Compare Mises, *Ultimate Foundation,* pp. 44ff., and *Human Action,* pp. 38–41.

42. "Economics and Knowledge," p. 33 (emphasis added).

43. Ibid., p. 55.

44. Ibid., p. 47fn.

45. Ibid., p. 34.

46. This reference to social causation purposefully avoids mention of the element of time. In fact, as will be shown, what social causation actually implies is not merely that people will have the capacity to understand the *past* valuations of other people,

but that they will have some insight into the relationship of these valuations to *future* valuations. Only in this way may actors have reason to assume that, given their own actions *A*, some set of reactions *B* will follow rather than an entirely random, unpredictable result. The existence of social causation implies that future social events are in some sense molded by the past. An implication is that there will be a degree of qualitative regularity and uniformity in values and institutions.

47. G.L.S. Shackle, *Epistemics and Economics* (Cambridge, England: University Press, 1972), p. 91.

48. Ibid., in the preface. Cf. also "Time, Nature, and Decision" in *The Nature of Economic Thought* (Cambridge, England: University Press, 1972), pp. 71–84.

49. *Theory and History,* p. 269. Spiro J. Latsis, in his paper "A Research Program in Economics" (*Method and Appraisal in Economics,* Cambridge, England: University Press, 1976, pp. 1–41) is also unable to comprehend the difference between the rationalism of praxeology and that of neoclassical equilibrium analysis. Thus, he describes Mises' principle as one that asserts that "human actions *are adequate or appropriate to the situations in which they occur*" (p. 4, emphasis in the original). In fact, praxeology does not reckon actions as "adequate" or "appropriate." According to it, the actions of a tribal witch doctor are no less rational than those of a modern surgeon. They are simply guided by different beliefs. Thus, contrary to Latsis's suggestion (p. 7), it is impossible for an agent to act in such a way as to "falsify" the praxeological thesis of rationalism.

50. "Mises and the Extension of Subjectivism," p. 37.

51. Of course, discussions of evolutionary processes and other exercises in conjectural history may be viewed as more "dynamic" than investigations in the pure logic of choice, but the latter remain dynamic nonetheless.

52. Further discussion of the differences between praxeology and neoclassical general equilibrium analysis appears later in this article.

53. See in particular his "Reflections on Hayekian Capital Theory" (unpublished ms., 1975); "From Mises to Shackle: An Essay in Austrian Economics and the Kaleidic Society," *Journal of Economic Literature* 14 (March 1976), pp. 54–62; and "Mises and the Extension of Subjectivism," op. cit.

54. Ludwig M. Lachmann, classroom communication.

55. This point is also stressed in White, *Methodololgy,* pp. 26–27.

56. See Roger Koppl, "Alfred Schutz and George Shackle: Two Views of Choice" (unpublished ms., 1982).

57. "Economics and Knowledge," p. 45.

58. It is therefore necessary to reject Lawrence H. White's attempt to distinguish between arbitrage and entrepreneurship by suggesting that in the former, profit opportunities may be said to have an "objective" existence. See White's essay "Entrepreneurship, Imagination, and the Question of Equilibrium" (unpublished ms., 1976), p. 4.

59. Israel M. Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973).

60. While profit opportunities cannot be defined *ex ante* by "objective" criteria (being fundamentally products of entrepreneurial imagination), this does not mean

that their successful exploitation *ex post* does not ultimately rest upon appeal to consumer wants. The *success* of entrepreneurial imagination depends crucially upon existence of market prices, which inform entrepreneurial understanding. More will be said about this in later sections.

61. Lawrence H. White, "Uncertainty and Entrepreneurial Expectations in Economic Theory" (unpublished ms., 1977), pp. 68–69.

62. *Phenomenology of the Social World,* p. 9.

63. Thus, even Kirzner is forced to hedge on such fundamental issues as the "completeness" of the competitive process by remarking (in *Competition and Entrepreneurship,* p. 97) that competition is "at least potentially present" even if entrepreneurs fail to be alert.

64. Mises, *Human Action,* p. 229.

65. Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles* (Princeton, N.J.: D. Van Nostrand, 1962), p. 542 (emphasis in the original).

66. Ibid., p. 543.

67. Yet these conditions are not sufficient. Successful calculation also depends on entrepreneurial understanding.

68. Attempts to explain market phenomena by referring to "divergent expectations" or other uncaused "natural" failures of entrepreneurial understanding are not truly explanations at all.

69. In his article, "The Role of Expectations in Economics as a Social Science" (*Economica* 14, February 1943, pp. 108–19) reprinted in *Capital, Expectations, and the Market Process* (Kansas City, Kans.: Sheed Andrews and McMeel, 1977), pp. 65–80, Lachmann denies that the conclusions drawn by the Austrian theory of the trade cycle follow necessarily from the premises involved in that theory. Lachmann claims that a timely adjustment of entrepreneurial expectations may prevent the usual consequences from arising due to the existence of a market rate of interest (r) below the natural rate (n). Mises, in his reply ("'Elastic Expectations' and the Austrian Theory of the Trade Cycle," *Economica* n.s. 10, August 1943, pp. 251–52) concedes the validity of Lachmann's claim. Nevertheless, properly worded, the theory remains logically valid; its conclusions refer to consequences that arise *if* authorities succeed in promoting investment beyond levels warranted by the supply of voluntary savings (S_v) by way of the issue of created credit (S_c). Now the market rate of interest, r, is the rate that equates the total demand for bank credit, D, with its *total* supply, $S_V + S_C$, so that the market clears. In the absence of created credit, the market rate r equates S_V with D and so is equal to the natural rate, n. The adjustment of expectations described by Prof. Lachmann can only refer to a reduction in D such as is needed to prevent it from exceeding S_V even in the face of the banks' offer of credit at cheaper prices. In other words, the banks' attempt to issue created credit are frustrated. (Alternatively, expectations may operate through the anticipatory raising of prices, so that although the nominal demand for credit rises, there is no increase in real demand.) In either case, the effect is to prevent a divergence between r and n from ever occurring. Therefore, the "elasticity of expectations," far from suggesting a possibility wherein a discrepancy between r and n does not have trade-cycle implications, merely suggests that entrepreneurs may frustrate attempts by banks to create the necessary discrepancy in the first place. The validity of the trade-cycle theory is not affected.

70. This is not to deny that certain propositions generally granted praxeological status may be seen at some point to depend upon unacknowledged empirical assumptions. Yet it is not the case that the greater part of catallactics is comprised of such propositions merely because they presume a "tendency toward equilibrium. This conclusion is defended in the final section of this article.

71. See Mises, *Human Action,* pp. 22–27.

72. An exception is the evenly rotating economy, which is a limiting case, as will be discussed later in this article.

73. Mises, *Human Action,* p. 251.

74. Lachmann is led to note, concerning the importance of market prices ("Reflections," p. 129), that "The beacon that had been designed to keep entrepreneurs from straying from the narrow path of convergent expectations turns out, on most nights, to be rather dim." It might be countered that a dim beacon is better than none at all, but this answer will not persuade those who believe that the future is truly kaleidic.

75. It is respecting the extremes of perfect knowledge (neoclassical schema) and complete uncertainty ("kaleidic society") that Roger Garrison upholds the view of "Austrian Economics as Middle Ground" (in Kirzner, *Method,* pp. 131–138). Garrison notes that these polar views "represent the extreme circumstances under which economic theory is either trivial or impossible. It is on that expansive band between the two poles that Mises' concept of human action . . . has applicability." See also Oskar Morgenstern, "Perfect Foresight and Economic Equilibrium," in *Selected Economic Writings of Oskar Morgenstern,* Andrew Schotter, ed. (New York: New York University Press, 1976), pp. 169–83.

76. On this distinction, see *Theory and History,* pp. 117–80.

77. Ibid., p. 178.

78. Ibid., p. 177.

79. Karl Popper, "Of Clocks and Clouds," in *Objective Knowledge* (Oxford, England: Oxford University Press, 1972), p. 217.

80. Mises, *Human Action,* p. 23. See also *Ultimate Foundation,* p. 20: "All we can say about causality is that it is a priori not only of human thought but also of human action."

81. New York: Basil Blackwell, 1984.

82. Mises, *Theory and History,* p. 316.

83. See Morris Cohen, *Reason and Nature: An Essay on the Meaning of Scientific Method* (New York: Dover, 1978), pp. 334–41.

84. Morris Cohen, *The Meaning of Human History,* 2nd ed. (La Salle, Ill.: Open Court, 1961), pp. 63–64.

85. Ibid., p. 64. This is what is implied by the denial of what I have called social causation.

86. "Perfect Foresight and Economic Equilibrium," in *Selected Economic Writings of Oskar Morgenstern,* Andrew Schotter, ed. (New York: New York University Press, 1976), p. 175.

87. All discourse, scientific or otherwise, presupposes mental causation: it involves belief that there is an exploitable relationship between our ideas and actions and the ideas and actions forthcoming in our fellows. Through discussion, and theo-

retical discussion especially, one attempts to *cause* others to *change* their beliefs and actions in some anticipatable manner. This is not simply a metaphorical way of putting things. It appears so only because we are thoroughly ignorant of the causal process involved. Similarly, entrepreneurial actions presuppose social causation. This is the basis for the belief on the part of entrepreneurs that they may successfully predict (understand) and influence the future choices of others.

88. Cf. Mises, *Epistemological Problems,* chapter 2, and Karl Menger, *Problems of Economics and Sociology* (Urbana: University of Illinois Press, 1963).

89. Cohen, *Human History,* p. 64.

90. Mises, *Ultimate Foundation,* pp. 15, 21.

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Competition and Political Entrepreneurship: Austrian Insights into Public-Choice Theory

Thomas J. DiLorenzo

Public choice can be defined as the application of economic theory and methodology to the study of politics and political institutions, broadly defined. Neoclassical price theory has been one of the principal tools of the public-choice theorist, having been applied to address such questions as why people vote, why bureaucrats bungle, the effects of deficit finance on government spending, and myriad other questions regarding the operations and activities of governments. There has indeed been a public-choice "revolution" in economics. But neoclassical price theory has its limitations, many of which have been investigated by Austrian economists. These limitations have implications for the study of public choice. Namely, if neoclassical price theory is itself flawed, then perhaps its applications to the study of political decision making has produced uncertain results.

In this article, I shall explore two strands of Austrian economics—theories of competition and of entrepreneurship—and their implications for public-choice theory. I do not claim to provide an exhaustive examination of public-choice theory from an Austrian perspective, but only to offer a few insights. The first section notes some limitations of applying the neoclassical competitive model to the study of political decision making. The next discusses the implications of placing more emphasis on the role of political entrepreneurship in the study of public choice. The final section contains a summary and conclusions.

Competition, Entrepreneurship, and Public Choice

One area in which the neoclassical competitive model has been applied by public-choice theorists is the economics of local public finance. There exists a large volume of mostly empirical research purporting that when metropolitan areas are composed of larger numbers of governments, competition

among governments for population and, consequently, tax base induces them to be more cost-conscious, thereby putting downward pressures on government spending (DiLorenzo, 1981a, 1981b, 1982, 1983). Thus, on efficiency grounds, public-choice economists often take the position that more governments within a metropolitan area are preferred to fewer. This is a direct application of the neoclassical competitive model, which holds that more firms in an industry leads to stronger competitive forces. It is also derived from the related structure-conduct-performance (SCP) paradigm of industrial organization theory.

Industrial Organization and Public Choice

The SCP paradigm asserts that a more concentrated market structure is likely to be more monopolist because, in such a setting, the cost of collusion is lower. But this assumption has been called into question by research that constitutes yet another revolution in economic theory—a revolution in the field of industrial organization (Goldschmidt, Mann, and Weston, 1974; Brozen, 1982). One of the significant features of the "revolution" in the field of industrial organization is that many researchers have taken a more dynamic view of the market as a process. Thus, they have moved closer to the Austrian view of the nature of competition. By taking a more dynamic view of how industries evolve over time, economists have learned (or relearned, according to DiLorenzo and High, forthcoming) that an important reason why industries become concentrated is the superior efficiency of one or a few firms. "Dominant" firms can only remain that way by continuing to offer competitive products at favorable prices, in the absence of government-imposed entry barriers. Substitutes and potential entry have placed effective limits on monopoly pricing by firms in concentrated industries (Brozen, 1982). Thus, the traditional antitrust prescription of divestiture to avoid monopolization is now widely believed to be sometimes harmful. Focussing attention on the reasons why industries become concentrated has advanced our knowledge over the days when it was simply assumed that market concentration meant monopolization and "market power."

This shift in research emphasis is welcomed by many Austrians, who for decades have criticized the neoclassical competitive model as almost devoid of behavioral content, given its emphasis on static equilibrium conditions rather than the process of competition. "Competition is by its nature a dynamic process whose essential characteristics are assumed away by the assumptions underlying the static analysis. . . . Advertising, [price] undercutting, and improving . . . the goods or services produced are all excluded by definition—"perfect" competition means indeed the absence of all competi-

tive activities" (Hayek, 1948, p. 96). By viewing competition as a static equilibrium condition rather than as a dynamic, rivalrous process, economists are prone to condemn competitive activities as monopolistic.

These developments in the economics of industrial organization are relevant to the study of public choice. If the neoclassical competitive model—and its derivative, the structure-conduct-performance (SCP) paradigm—are themselves flawed, perhaps the model's applications to the study of the local government "industry" are also subject to question. I contend that by relying on static, market structure models of the local government "industry," public-choice economists have often drawn false conclusions. However, by relying on static models, they have not erred in the same direction as the structuralist industrial organization economists. Rather than condemning as monopolist many practices that are inherently competitive, they have done the opposite. By focussing on government structure at a point in time rather than on the dynamic, historical process by which the institutional structure of government evolves, they have sometimes praised as "competitive" government actions that are inherently monopolistic.

Consider, for example, how public-choice economists often interpret U.S. Census Bureau data on local government structure. Among public-choice economists who have studied local government, it is generally agreed that the greater the number of government units in a metropolitan area (the more "fragmented" the governmental structure), the better. Fragmentation creates interjurisdictional competition, which supposedly provides incentives for lowering the costs of service provision. This purportedly lowers expenditures and taxes and also results in higher-quality government services. These conclusions are usually drawn from cross-section data on government expenditure, regressed against several "determinants" of public expenditures, with some sort of proxy for interjurisdictional competition, i.e., number of government units in a metropolitan area. More often than not, the independent variable for government structure reveals that more fragmented metropolitan areas have lower levels of government expenditure, *ceteris paribus*. These empirical studies are similar to the early empirical work in industrial organization that found a positive correlation between market concentration and profitability. More concentrated metropolitan governments are thought to lead to higher levels of *political* "profits" in the form of higher spending than would otherwise occur.

But just as taking a more dynamic or historical view of industrial market structure can yield different interpretations of the causes of market concentration, it can also change one's view of the meaning of a more or less concentrated structure of local government. Consider the example of off-budget government spending at the state and local levels (Bennett and DiLorenzo, 1983).

Off-budget Spending and the Government Process

Historically, tax revolts and fiscal constraints in the form of statutory or constitutional restrictions on taxing, spending, or borrowing at the state and local levels of government have been met by politicians not by catering to "the will of the people," but, rather, by subverting that will by creating off-budget enterprises (OBEs) that permit them to preach fiscal conservatism by continuing to practice fiscal profligacy. The "solution" politicians have for more than a century applied to the "problem" of taxpayer demands for tax or expenditure restraint is disarmingly simple: Separate corporate entities are created by state and local governments, which could issue bonds that are not subject to the legal restrictions on public debt or even to voter approval. These entities are called a variety of names, including districts, boards, authorities, agencies, commissions, corporations, and trusts. Regardless of their title, an essential feature of all such organizations is that their financial activities do not appear in the budget of the government unit that created them. One distinguishing feature of OBEs is that their operations, at least in theory, are not financed from taxes, but from revenues generated by their activities. Because the taxpayer is not deemed to be liable for the financial obligations of OBEs, voter approval is not required for the debt issued by such organizations and, more importantly, debt restrictions do not apply. However, the idea that off-budget finance should not require voter approval because the projects financed are self-supporting is a myth, for billions of taxpayer dollars are used to subsidize OBE activity (Bennett and DiLorenzo, 1983). The array of activities undertaken by OBEs is quite large and includes the financing of school buildings, airports, parking lots, recreation centers, courthouses, subways, bridges, tunnels, highways, parks, lakes, sewer systems, sports arenas, electric utilities, race tracks, outer space programs (in California), and housing, to name a few examples. In short, any activities that are undertaken on budget by state and local governments (or by private enterprises, for that matter) are also undertaken by OBEs in every state.

Even if debt restrictions did not exist, politicians would benefit from off-budget activities. The public sector is constrained by numerous regulations designed to protect the public interest. Virtually none of these applies to any OBE. For example, civil service regulations do not apply, so it is easier for politicians to create patronage jobs off-budget; there are no requirements for competitive bidding procedures on contracts, so campaign contributions can be obtained and loyal supporters can be rewarded; the members of the boards of directors of every OBE are political appointees who are not elected or responsible to voters, so that the will of politicians cannot easily be frustrated by a recalcitrant bureaucracy. OBEs are given wide powers by law. They are granted monopoly franchises, may have powers of eminent domain, can override zoning ordinances, are exempt from regulations and paperwork that

impose heavy costs on private enterprises, have no legal restrictions on collective bargaining agreements, and are often specifically exempted from antitrust laws regarding price fixing.

Unfortunately, it is impossible to obtain accurate data on the number of OBEs that exist or on their activities. Most states do not keep statistics on their numbers. One thing is known with certainty, however: There are thousands of OBEs throughout the nation, including more than 2,500 in Pennsylvania alone as of 1977 (Schlosser, 1977).

One implication of this research for public choice theory is that the structure of the local government industry at any one point in time does not necessarily reveal how "competitive" government is. Bureau of the Census data on the number of government units in metropolitan areas includes many OBEs, designating them as special districts, public corporations, statutory authorities, and so on. But an increase in the number of such entities often results in a government that is increasingly detached from the consent of the governed, is not subject to direct voter approval at the ballot box, and grants itself extraordinary powers—even by government standards—of eminent domain, zoning authority, and immunity from civil service, collective bargaining, antitrust, and other laws that others in society must comply with. A strong argument can be made that avoiding taxpayer demands for fiscal restraint is the whole purpose of off-budget spending, which renders government more monopolist. To designate these developments as "competitive" or "efficient" is misleading, at best. But this is precisely the problem public-choice economists experience when applying the neoclassical competitive model to the study of local government (see, for example, Blewitt, 1984).

Efficiency and the Structure of Local Government

Competitive markets are praised by neoclassical economists because, among other reasons, they promote allocative efficiency. Austrian economists, however, have little use for such notions because of their belief that all costs and benefits are subjective. To state that a certain allocation of resources is allocatively efficient and maximizes "social welfare" is to assume that benefits and costs are objective and measurable by some outside observer/social engineer. Moreover, to claim that one allocation of resources is superior to another on neoclassical efficiency grounds requires one to make interpersonal utility comparisons, a sheer impossibility. For instance, if an industry is judged to be producing less than the competitive level, a common policy prescription to promote efficiency is to somehow induce the firm(s) to increase their production (through divestiture, for instance). This may harm the producers since it forces them to do something they did not voluntarily choose to do, but it is said to be efficient because the utility gain to some other group

in society—usually called consumers—is said to outweigh the utility loss to the producers.

Policy recommendations based on such efficiency norms often attenuate the rights of political minorities such as "monopolist" producers on the grounds that their utility loss is outweighed by the utility gains of others. This arbitrarily assumes that the property rights of the former group are unimportant. In short, what passes for science is loaded with normative judgments.

There is an alternative (and equally normative) definition of "efficient" institutions that has its roots in Adam Smith's *Wealth of Nations* and embraces the notion of individualist property rights norms: Those institutions are efficient that facilitate mutually advantageous, voluntary exchange (Buchanan, 1964). From this perspective, a "better" allocation of resources can only be determined by people themselves, not by professional maximizers of social welfare functions. The standard of evaluation is ultimately consent among individuals. Also, according to this perspective, the proliferation of the number of local governments cannot be said to be "efficient," since the growth of government embodies a further reallocation of resources from the private to the public sector. The private sector is the exclusive domain of mutually advantageous exchange. Outside of its role of enforcing and protecting private property rights, all government resource allocation is necessarily coercive in the absence of direct democracy and voting rules mandating unanimous consent. The proliferation of local government units, on- or off-budget, represents an expansion of the domain of rent-seeking behavior, which is necessarily coercive, at the expense of a contracted private sector and of the domain of voluntary exchange.

Public-choice economists typically criticize a consolidated local government structure as monopolist compared to the alternative of a larger number of jurisdictions within a metropolitan area. In many instances, this criticism is probably well grounded. One centralized school district, for instance, is likely to be even more monopolist than if there were several to choose from by "voting with your feet." As George Orwell might have said, all governments are monopolist, only some are more monopolist than others.

However, it is not clear that the relevant alternative to a fragmented government structure within a metropolitan area is a more centralized, monopolist government. Another alternative is a return to private-sector provision of the *private goods* now supplied by local governments: education, libraries, hospitals, airport operation, fire protection, parking lot operation, water supply, police protection, sewerage treatment, parks and recreation, operation of liquor stores, mass transportation, and myriad other activities. One thing all these activities have in common is that no strong case can be made that any of them is a public good. They are all divisible in consumption and exclusion is not costly. Moreover, they are all things that are supplied throughout the

country by private businesses as well as by governments, leading one to question the existence of any economic rationale for government provision.

Governments usually grant themselves distinct advantages whenever direct competition with the private sector is permitted (which it often is not) by not having to pay taxes or comply with costly regulations imposed on private enterprises. Thus, these are often money-making operations for local governments that have taken over services that would have alternatively been provided by private businesses. Government imperialism is a more likely explanation than market failure for why these activities are carried out by hundreds of local government jurisdictions. Governments are redirecting resources from the private to the public sector as private firms are either banned by law from competing with government monopolies or are driven out of business because of the special advantages that government service providers have. Viewed in this way, it appears that the public-choice characterization of the "efficient" organization of local government is grossly misleading.

Public Choice and Political Entrepreneurs

Austrian economists often claim that neoclassical economics ignores many important economic phenomena by not sufficiently emphasizing the role of entrepreneurship in the economic organization. Ludwig von Mises broadly defined entrepreneurship to encompass capitalists, workers, consumers, and others: "Economics, in speaking of entrepreneurs, has in view not men, but a definite function" (1966, p. 246). The function of the entrepreneur is to react to (and create) change in the market. The efficiency of markets does not depend upon the equality of price to marginal costs, the familiar equilibrium condition of neoclassical price theory, but, rather, "it depends on the degree of success with which market forces can be relied upon to generate spontaneous corrections. . . at times of disequilibrium" (Kirzner, 1974, p. 6). Entrepreneurship is the engine of economic growth and wealth creation in capitalist economies, for according to Robert Tollison:

> When competition is viewed as a dynamic, value-creating, evolutionary process, the role of economic rents in stimulating entrepreneurial decisions and in prompting an efficient allocation of resources is crucial. . . . [P]rofit seeking in a competitive market order is a normal feature of economic life. The returns of resource owners will be driven to normal levels . . . by competitive profit seeking as some resource owners earn positive rents which promote entry and others earn negative rents which cause exit. Profit seeking and economic rents are inherently related to the efficiency of the competitive market process. Such activities drive the competitive price system and create value (e.g., new products) in the economy. (1982, p. 577)

But neoclassical economics does not view competition as a "dynamic, value-creating, evolutionary process." Rather, it is a static equilibrium condition. And in equilibrium, there is no place for the function of entrepreneurship, since in equilibrium, there are no changes in the given data of endowments, technologies, or preferences. By downplaying or ignoring the role of entrepreneurship and of competition as a dynamic, rivalrous process, neoclassical economics has probably underestimated the wealth-creating and welfare-enhancing capabilities of capitalism.

Similarly, by applying the static, neoclassical model to the study of political "markets," public-choice theorists have probably downplayed or ignored the role of *political* entrepreneurship. But this has not led them to ignore the role of entrepreneurship in *creating* wealth and facilitating exchange, as with the study of private markets. The essence of political entrepreneurship is to *destroy* wealth through negative-sum rent-seeking behavior. Thus, adherence to the static, neoclassical model is likely to lead one to understate the beneficial economic effects of private markets while, when applied to the study of public choice, understating the destructive effects of politics.

In much of public-choice theory, interest groups are viewed as entities that coalesce to express a demand for wealth transfers. In seeking political profit, politicians respond by supplying the transfers through legislation and regulation. Politicians are accordingly labeled "brokers" of legislation (Tollison and McCormick, 1981). Thus, just as a perfectly competitive, profit-maximizing firm would cater to consumer demands, politicians passively respond to the wishes of interest groups. But the price theory analogy is not entirely accurate, for in a world of uncertainty, producers are constantly searching for and *creating* profit opportunities by advertising, offering new or different products, and other activities aimed at stimulating the demand for their goods or services. They do not merely respond to changing consumer demands. Similarly, political enterpreneurs do not just passively respond to interest-group pressures; they also try to stimulate the demand for their "services," i.e., the provision of wealth transfers (Mitchell, 1984). Although it has been relatively neglected in the public-choice literature, Richard Wagner (1966) described the importance of political entrepreneurship in a hypothetical example where interest groups are outlawed.

> Consider farm interests after pressure groups are outlawed. It clearly seems contrary to intuition and common sense to claim that farmers would no longer have [political] activities undertaken to increase their real incomes. For a reconciliation we must turn to the political entrepreneur and observe the impact of the outlawing of lobbying upon his profit opportunities. If a political profit existed before the institutional change [i.e., outlawing lobbying], what reason exists for the belief that such profit will not exist after the change? Clearly, for a reduction in the political profit from farm votes,

> either voting or organizational rules must be changed. Since the outlawing of pressure groups is unrelated to either of these two features, the profit must still exist after pressure groups are outlawed. Therefore, some political entrepreneur would carry their cause to congress. (p. 165)

Wagner further stated that various institutional arrangements often emerge to promote individual interests when free-rider problems prevent the formation of effective interest groups. For instance, one role of government bureaucracies is to serve the wishes of political entrepreneurs with whom they share a common objective: an expansion of the agency's activity (and budget). Bureaucracies have strong incentives to promote and stimulate a perceived need for their activities—every bureaucracy is a vigorous lobbyist. Peter Woll (1977) noted the importance of bureaucratic lobbying in his book, *American Bureaucracy:*

> The ability of administrative agencies to marshal support in favor of particular programs is often severely tested, and as a result the agencies have frequently created public relations departments on a permanent basis to engineer consent for their legislative proposals. It has been estimated that the executive branch spends close to half a billion dollars [in 1971] a year on public relations and public information programs. . . . [A]gencies are expending huge amounts of funds, time, and effort on indirect and direct lobbying activities. (p. 194)

As recent examples of bureaucratic lobbying expenditures, the U.S. Department of Agriculture in 1984 officially employed 144 full-time public affairs persons with a budget of $6.5 million. The entire department, including subagencies, employs 704 people involved in public affairs (Palmer, 1985). The Department of Education had 21 public affairs professionals and a $1.5 million budget; and the Pentagon listed 1,066 full-time public relations employees. Similar programs are sure to be found in other agencies as well.

The effect of political advertising is likely to be public acquiescence in the continued growth of the government wealth-transfer process. Unlike private advertising, political advertising does not foster competition and lower prices by facilitating comparison shopping, for no comparisons are permitted. Governments usually grant themselves statutory monopolies in the goods and services they provide. Nor are there strong constraints on false advertising by government because of the absence of competitive pressures. Few private businesses, for instance, would risk criticizing false advertising by government enterprises for fear of regulatory retribution by the government authorities. Nor can one expect government regulatory agencies such as the Federal Trade Commission to crack down on fraudulent claims made by government itself. Thus:

> Politicians cannot be held liable for their promises. If a hot dog manufacturer's all-meat product turns out to be 30 percent chicken and bread crumbs, he will most likely encounter difficulty with the government, even if consumers buy the product. But when the government's comparable product turns out to be 60 percent baloney, no regulatory agency will take action. (Wagner, 1976, p. 81)

Moreover, the principal function of political advertising "would seem to be to promote acquiescence about the prevailing public policies. The purpose of public advertising would be to reassure citizens that the fact that their public goods are composed of 60 percent baloney indicates good performance" (Wagner, 1976, p. 97). In this way, political entrepreneurship in the form of public advertising facilitates the process of rent seeking.

Another example of political entrepreneurship is tax-funded politics (Bennett and DiLorenzo, 1985). Hundreds of millions of dollars per year are doled out by the federal government to special interest groups including Ralph Nader-type consumer groups, environmentalists, welfare rights lobbyists, civil rights organizations, labor unions, senior citizens organizations, and various conservative political activists, to name a few examples. The funds are obtained through grants and contracts ostensibly for helping consumers, the unemployed, the elderly, minorities, the environment, and so on, but then are diverted (illegally) for partisan politics. In these instances, Congress is directly stimulating the perceived demand for its "services" by giving taxpayers' money to special interests to lobby, campaign, register voters, publish books (as well as op-eds and political training manuals), hold media events, and conduct other forms of partisan politics. Politicians use tax-funded politics to fabricate demands for legislation and government activity to stimulate the demand for their services. Interest groups that receive government funding can be more blatant in their political activities than government bureaucracies can since it is illegal for government employees to engage in on-the-job political activity. And, as Gordon Tullock (1983) pointed out, "interest groups normally have an interest in diminishing the information of the average voter. If they can sell him some false tale which supports their particular effort . . . it pays. They . . . produce misinformation" (p. 71).

In sum, focussing on the role of political entrepreneurship is likely to improve one's understanding of the government process. Demand-side models of the political process (such as the median voter model) can be misleading if they fail to incorporate the fact that political entrepreneurs are experts at fabricating false crises to convince the public to acquiesce in their policy proposals. Voters are rationally ignorant, and much of the information about politics they do receive is propaganda issued by self-serving politicians, interest groups, and bureaucracies. It does not pay to be as well informed about politics as about one's own personal affairs, which permits political

entrepreneurs to manufacture a false "will of the people." Joseph Schumpeter (1942) recognized this more than four decades ago: "Human nature in politics being what it is, [politicians] are able to fashion and, within very wide limits, even to create the will of the people. What we are confronted with in the analysis of political processes is largely not a genuine but a manufactured will. . . . [T]he will of the people is the product and not the motive power of the political process" (p. 263).

Even though private and political entrepreneurship both serve to transmit information, they produce fundamentally different results. The nature of market activity is to enhance people's propensity to truck, barter, and exchange—generally a positive-sum game—and entrepreneurship facilitates this process. By contrast, the nature of most government activity, including political entrepreneurship, is to promote wealth transfers, which is, at best, a zero-sum game. Mancur Olson (1982) provides evidence that such rent seeking is, in fact, a negative-sum game and a major cause of economic stagnation.

Conclusions

Austrian economics and public choice are two of the most exciting areas of economic research. With its emphasis on competition as a dynamic, rivalrous process and the role of entrepreneurship, Austrian economics clarifies how markets work. Public-choice theory has been absolutely revolutionary in focussing attention on how the tools of economics can be employed to better understand how governments work. This article is, if anything, a plea to consider the two research programs as complementary. Economic reasoning can and will be applied to advance our understanding of the political process, but one need not adopt the entire neoclassical economic framework to do so. The two strands of Austrian economics discussed here—theories of competition and of entrepreneurship—offer some insights into the government process that neoclassical economics ignores, at best, and possibly even misinterprets. One implication of this is that the type of public-choice research conducted might take on a different focus. Specifically, it would be a wise investment of intellectual resources to conduct more historical studies of the evolution of political institutions from a public-choice perspective. Public choice *is* often a study of comparative institutions, but economic history is one research approach which has, unfortunately, been relatively neglected by public-choice theorists. There is much to learn from economic and political history from a public-choice perspective that just cannot be captured by regression equations of the "determinants" of government spending, taxing, and borrowing.

Not only can a careful consideration of the usefulness of Austrian economics to the study of public choice expand our knowledge of government

institutions; it can also prevent us from making mistakes. I have claimed elsewhere (DiLorenzo, 1984) that the economics of rent seeking has become confused. One reason for this is the failure to properly distinguish between rent seeking and profit seeking by not viewing real-world competition as a dynamic, rivalrous process. Consequently, some authors have condemned as "wasteful rent seeking" many activities (e.g., competitive advertising, product innovation, research and development, the market for corporate control) that are an essential part of a dynamic, competitive market. This is a step backward in the public-choice revolution, something that might have been avoided by being aware of some of the limitations of the neoclassical competitive model and its applications to public choice.

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Why the Austrians Are Wrong about Depressions

Gordon Tullock

For many years, I have been critical of the Austrian theory of depressions and this led Walter Block to ask me to put my criticisms in print. Since in oral discussions, I am frequently accused of misrepresenting the theory, I asked him to give me a canonical version and he gave me the Rothbard pamphlet, "Economic Depressions: Causes and Cures."[1]

The pamphlet begins by presenting a Ricardian theory which is, of course, the foundation not only of the Austrian theory, but of most modern monetarist work. Rothbard, as I, thinks the Ricardian theory a major step forward, but incomplete. Our differences concern what should be added on to that theory. I shall not here attempt to derive a correct theory of depressions, but simply explain why I feel that the Austrian theory is not a serious contender for that honor.

Before turning to my main criticism, however, I would like to pick three nits. First, Rothbard never explains why the inflation that is part of his theory cannot simply be continued or even accelerated. I understand why Mises without our modern experience thought that it was impossible, but anyone familiar with the present world must realize that inflations can, at least, continue for very long periods of time and reach very high levels of monetary depreciation. As a personal item, I have lived through three hyperinflations and can testify that it is undeniably unpleasant, but not really a disaster.[2] It's the flu, not pneumonia.

The second nit has to do with Rothbard's apparent belief that business people never learn. One would think that business people might be misled in the first couple of runs of the Rothbard cycle and not anticipate that the low interest rate will later be raised. That they would continue unable to figure this out, however, seems unlikely. Normally, Rothbard and the other Austrians argue that entrepreneurs are well informed and make correct judgments. At the very least, one would assume that a well-informed business person interested in important matters concerned with the business would read Mises and Rothbard and, hence, anticipate the government's action.

My third nit deals with Rothbard's apparent belief that the depression and booms are cyclical. There are statistical tests that will detect cycles if they exist and these have been applied to the historic data. The result of the tests is a random walk rather than a cycle. Since Rothbard urges as one of the strong points of his theory explaining the cyclical nature of depressions and booms, this statistical finding would seem to be of considerable importance to him.

These are nits and not my major objection. My major objection, putting it quite bluntly, is that if the process that Rothbard describes did occur, there would be many corporate bankruptcies and business people jumping out of the windows of office buildings, but there would be only minor transitional unemployment. In fact, measured GNP would be higher as a result.

Suppose, then, the government forces down the rate of interest:

> For business men, seeing the rate of interest fall, react as they always would and must to such a change of market signals: they invest more in capital and producer's goods. Investments, particularly in lengthy and time consuming projects, which previously looked unprofitable now seem profitable, because of the fall of the interest charge. In short, businessmen react as they would react if savings had *genuinely* increased.[3]

This passage deserves a little analysis. First, it should be noted that if the business people are now building more factories than they were before, which is what Rothbard says, then, in fact, savings that are available for building factories must have increased. In fact, they have. What has happened is that the government by inflationary measures is transferring a certain amount of money from the general citizenry into the investment accounts and, hence, the money for building these additional factories is made available.

The second point that must be emphasized is his argument that investments in "lengthy and time consuming projects" are made. It should be noted here that Rothbard may possibly be confused by the Austrian theory of capital which involves a waiting time theory. In fact, most manufacturing processes take relatively little time. There are, of course, exceptions—building ships, large buildings, wine (if anyone is determined to let it reach its maximum market value), etc.—but mostly what takes the time is building the factory, not the actual production once the factory is completed. Austrians are quite correct in referring to this as a roundabout method of production, but one should not believe that because Henry Ford, shall we say, paid immense amounts of money in the 1920s mechanizing his factory, it actually took a long time for iron ore entering the River Rouge plant to be turned into a model T. The roundaboutness was building the steel mill and the assembly line and then depreciating it.

This matter is of some importance because the interest rate is of great

significance in deciding whether or not to build a new factory, buy an expensive machine, etc., but of very little significance in deciding how much to produce in an existing factory. In my own experience as member of the board of directors of a small company, we frequently discuss interest rates at great length when we are considering capital expenditures. I cannot recall the interest rate even being mentioned in any of our discussions of production matters.

Let us assume with Rothbard that, after a while, the government finds itself unable to keep the interest rate low and its shoots up again. Business people, to quote Rothbard, "had overinvested in capital goods and underinvested in consumer products."[4] I am not positive exactly how business people invest in consumer products. Walter Bloch suggests that this phrase "refers not only to retail inventories, but also to actual manufacture and also promotion of items of final consumption."[5] I shall accept that interpretation for what follows.

For our analysis, we shall assume that the interest rate which should have been 5 percent had been forced down to 3 percent although that seems a rather large cut granted the generally quite feeble instruments that governments have for lowering the interest rate. If they have not anticipated the later rise, some businesses will clearly go bankrupt, but let us go through a number of different possible situations.

First, a good deal of the productive capital will in fact have been inherited from the period before the government began to drive interest rates down. This is particularly true with such things as buildings and ships which are long and hard to produce, but it will also be true with much other equipment.[6] There is no reason why this machinery should be particularly damaged by what has happened, nor is there any reason to believe that there is too much of it under the current circumstances.

The second issue would be those new capital investments made during the period of the artificially depressed interest rate and that have been completed. Let us for this purpose consider only those capital investments that have been made in industries that produce consumer goods and leave the investments in industries producing capital goods until later.

Clearly, the businesspeople who made these investments will lose money; some of them will go into bankruptcy. But this is a sunk cost. There is no reason why this equipment should stop being used. Indeed, there is now more equipment of this sort than there would have been had the government not depressed the interest rate. Thus, the demand for labor to work with it will be higher than it would have been had these investments not been made.[7] What happens is that the products of these industries would have to be sold at a price that covered their operating cost but not their capital cost.

Bankruptcies again would occur, but we would anticipate that as a result of this additional capital equipment and additional production—together

with the fact that the material has to be sold at a price that does not cover capital cost (hence, a lower price than had originally been planned)—there should be higher living standards.

We must now consider those factories (factories designed for consumer products) that have not yet been finished when the interest rate rises. Whatever has already been built is once again a sunk cost, a cost that should be ignored in deciding whether or not the machinery or factory should be finished. Thus, if the interest rate went from 3 to 5 percent, most factories that are more than about 40 percent finished would still be completed. The same rule would apply to those special machines that take a long time to build. Once again, bankruptcies and loss of money would be expected, but the additional investment necessary to complete the machinery or the factory would be capable of paying 5 percent.[8]

Rothbard apparently believes that the 1920s was a long period of artificially depressed interest rates.[9] The overwhelming bulk of all capital investment caused by those low interest rates would have been completed by 1929 or, at least, brought close enough to completion so that even under the higher interest rates, finishing it off would be a profitable operation. The number of factories, apartment buildings, ships, etc. left incomplete because the operation had not gotten far enough along so that it was still profitable to complete them, would have been a fairly small part of the total new equipment acquired in the 1920s. Thus, once again, one would anticipate higher living standards and high employment.

But there would be those factories and machine tools that were less than 40 percent completed and, hence, for which production stopped. This brings us to the producer goods industries. The first thing to be said here is that the producer goods industries are always a fairly small part of the economy. In that small part, however, undeniably a Rothbard, Austrian type of depression would cause a cutback in production and laying off of personnel. Many factories, apartment buildings, and machine tools would be far enough along so that their completion would still be sensible with the new interest rates, and the cutback would not be total, but nevertheless it would be painful.

Note that new investment in equipment for the capital goods industries benefits from much the same effects as the new equipment investments anywhere else. That is, the equipment or factory that had been completed would now be available for production whenever prices rose above the current operating cost. Once again, an outburst of bankruptcies would be anticipated.

That producer goods industries are highly unstable, with booms and depressions that are much more severe than for the rest of the economy, is very well known.[10] Certainly, everybody in those industries knows it. If people in the capital goods industries failed to make their plans for the contingency of a very severe depression, one would be most surprised.[11] Under the circumstances, one might anticipate difficulties in these industries, but one

would also assume that everybody in such industries realized that it was a temporary phenomenon and it was only a question of sitting on your hands for a while. Further, one would also assume that the bulk of them had taken precautions against such readily predictable contingencies. After all, these industries are well known to be extremely unstable, and one would assume that both capitalists and skilled laborers who invest in acquiring a position in the industry would have done so with full knowledge of the situation.

The end result of all of this is that we would anticipate that in an Austrian-style depression, there would be a good deal of unemployment in the capital goods industries, but this is, after all, a small part of the total industrial picture. Of course, such industries would not be able to buy as much in the way of consumer goods as they would otherwise, and this would add to the fall in prices which would have to be absorbed by other industries. Indeed, it would increase the bankruptcy rate. Because of the size of the capital goods industries compared to the rest of the economy, however, the forcing down of prices in other industries made necessary by this unemployment would once again cause bankruptcies but not unemployment.

Consider another way of stimulating investment. Suppose that the government taxed consumer goods and used the money to subsidize investment. Suppose further that after a while, it stopped the subsidy. This is not good policy, but the net effect would be that production after the end of the subsidy would be higher than if no such subsidy had been offered. Indeed, we have a sort of example in the farm program. Among the many effects of this bit of government mismanagement, there has been an increase in farm capital above what would have occurred without the program. If the program were terminated tomorrow, there would be bankruptcies among farm owners, but both *hired* labor and consumers would benefit.

Looked at from the standpoint of ordinary employees in a nonproducer goods industry, the Austrian cycle would mean that their living standard was artificially depressed during the boom period, because funds that they would prefer to spend on consumption were being diverted to investment. During the depression however, their living standard would benefit, first, because with more capital goods, the demand for complementary services (mainly labor) is greater than it otherwise would be and, second, because prices for consumer goods are lower. Laborers would be exploiting the capitalists.

Notes

1. Although "Economic Depressions: Causes and Cures" appears on the cover of the pamphlet, the title page gives *Depressions: Their Cause and Cure*. Whatever the title, it is published by Constitutional Alliance, Inc., Lansing, Mich. (no date).

2. I was personally somewhat protected from them since I was an American diplomatic official.

3. Rothbard, p. 21.

4. P. 22.

5. Letter of 5 Jan., 1987.

6. The factory that I am associated with in Iowa is still using some machinery which is over twenty-five years old. This is probably typical.

7. Leftists might disagree. Capital-induced unemployment through labor-saving machines is part of their orthodoxy.

8. Under modern circumstances, prefabricated factory buildings do not really take very long to erect. Nor is the manufacture of most production equipment a long process. The roundaboutness of investment occurs in the depreciation.

9. Probably the largest single government action lowering interest rates was the rapid retirement of a sizable fraction of the war debt. For some reason, Austrians never mention it.

10. As a child in the machine tool center of Rockford, Illinois, who remembers the Great Depression, I can testify to this.

11. Here again, Rothbard appears to believe that one of the advantages of the Austrian theory of depressions is that it explains why the producer goods industries suffer more in depressions than other industries (p. 25). It does, but so far as I know, so do all other theories of depression except those highly abstract theories that do not look at interindustry impact. In any event, why they are particularly depressed in depressions and particularly booming in boom times is fairly obvious.

"Social Utility" and Government Transfers of Wealth: An Austrian Perspective

David Osterfeld

The Nature of the Free Market

One of the tenets of the Austrian position is that the free market invariably increases "social utility." If government interferes with the market process, Ludwig von Mises wrote, "it can only impair satisfaction; it can never improve it" (p. 744). The reasoning is as follows. Since any voluntary exchange will take place only when each participant expects to benefit, "the very fact that an exchange takes place," says Murray Rothbard, "demonstrates that both parties benefit (or more strictly *expect* to benefit) from the exchange." Thus, since the free market is nothing more than "the array of all voluntary exchange that takes place in the world," and since "every exchange demonstrates a unanimity of benefit for both parties concerned, we must conclude" that, provided all major externalities have been internalized, as they would be in a world of universal private property, "*the free market benefits all its participants*. . . . We are led inexorably, then," says Rothbard, "to the conclusion that the processes of the free market always lead to a gain in social utility. And we can say this with absolute validity as economists, without engaging in ethical judgments." (1956, p. 250).

This statement demands careful consideration in order to understand precisely what is and is not being claimed. In the real world, peoples' expectations about the future are often mistaken and, hence, businesses suffer losses or go bankrupt and anticipated profits from investments often do not materialize. Further, individuals are often disappointed because their *proferred exchanges* are rejected. Are not both of these cases examples of where the market renders at least one individual worse off and thus refutes the Austrian position that the market *always* increases social utility?

Future Expectations

It is certainly true that businesses sometimes go bankrupt and the expected profits from investments do not materialize. But the Austrian claim is that

individuals maximize their utility *ex ante*. This is certainly consistent with bankruptcy, unprofitable investments, the purchase of (losing) lottery tickets, etc. This can be easily demonstrated. Assume for simplicity that one has a .5 chance of having an investment yield a profit and a .5 chance of suffering a loss. If the individual believed that a profit would increase *future* utility more than a loss would reduce it, the discounted *present* value of that investment would be positive. This means that, *regardless of the actual outcome,* the decision to invest would increase one's present utility, while the decision not to would reduce it. Thus, the decision to invest would increase one's utility *ex ante,* even if it proved to be a mistaken choice and thus reduced utility *ex post.*

The significant point is that it is not the market, itself, that was responsible for reducing one's utility, but the uncertainty of the future. And this uncertainty, it must be emphasized, is an ineradicable element of nature and is therefore *independent* of any particular economic system.

In fact, since there are gains from trade to be made on the market by enabling others to reduce the risks they face, the market actually works to minimize uncertainty by enabling individuals to purchase insurance against practically any risk imaginable (Rothbard, 1970a, pp. 498–501; Rothbard, 1970b, p. 161).

In short, reduced utility resulting from mistaken expectations about the future is not inconsistent with the Austrian position regarding decisions *ex ante*. Further, such mistakes are due to the uncertainty of the future. This uncertainty is not the result of the market but is inherent in nature (Mises, pp. 105–6; Rothbard, 1970a, p. 5). Finally, it is actually the market process that operates to minimize this uncertainty.

Rejected Offers

But what of the second category of action? Would it not be correct to say that one who had an offer of an exchange rejected had utility reduced?

Assume for the sake of simplicity that two job applicants, Abbott and Costello, have equal ability. If Abbott offers to work for, say, $5.00 per hour while Costello makes an offer of $4.75 per hour, the employer will hire Costello. But if Abbott makes a counter offer of $4.50 per hour, the employer would then hire Abbott. Costello must now decide whether he will offer less than $4.50 per hour. Suppose he decides against this. Abbott would then be hired at $4.50. Clearly, both participants, the employer and Abbott, gain. But what of Costello? Did he not lose? Was not his utility reduced? The answer is no. First, Costello had the option of underbidding Abbott. The fact that he did not do so indicates that for him no job was a better option than a job at less than $4.50 per hour. Thus, Costello chose the better of the two options that actually faced him. That option was to make no exchange. That is, if

Costello were coerced, either by a gun-wielding employer or the government, into working for less than $4.50 per hour, his utility would be *lower* than it would be in the absence of coercion. Thus, Costello made the choice which maximized his utility given the options facing him at the time of that choice.

But Costello desired a job at $4.75 per hour. His hopes were dashed when Abbott offered to work at $4.50 per hour. Was not his utility reduced by having his hopes for the job at $4.75 dashed? Costello's failure to get the job does not mean that he is any worse off than he was *before* he made his offer. He did not have the job before he made the offer; he does not have the job after his offer was rejected. Thus, his *realized* or *real-world* utility plane is unchanged. What has happened is that his hoped-for increase in utility did not materialize; that is, his *realized utility plane* is lower than his hoped-for or *fancied utility plane,* i.e., the utility resulting from an alternative that either could not occur or could occur only through the use of violence. Of course, there must always be a discrepancy between one's actual and desired abilities, between one's realized and fancied utility planes. If this were not the case, if everyone's desires were fully satisfied, all action would cease, for any action would, by definition, entail a reduction in utility (Mises, pp. 13–14).

Put differently, the free market operates to increase every individual's *realized* utility plane. To complain of a discrepancy between realized and fancied utility planes is simply to complain that one's desires have not been fully satisfied. But this complaint reduces itself to the mundane observation that more is better than less, that abundance is better than scarcity. But scarcity, like uncertainty, is an ineradicable element of nature that is independent of any particular economic system. In fact, while scarcity cannot be eliminated, one can point out that the market is the most efficient institution for production yet discovered and is therefore a powerful engine for reducing scarcities. This can be briefly demonstrated.

Since consumers only buy what they intend to use, one can make a profit only by producing what consumers desire. This, of course, means that it is the consumers who ultimately direct production by their buying and abstention from buying. To produce their goods, the entrepreneurs must bid for the needed resources. They therefore stand in the same relation to the sellers of factors of production as the consumers do to the sellers of final goods. Thus, the price for the factors of production tend to reflect the demand for them by the entrepreneurs. Since what the entrepreneur can bid is limited by expected yield from the final sale of a product, factors are channeled into production of those goods most intensely demanded by consumers. If returns are not high enough to cover the cost of a particular operation, there is, in the eyes of the consumers, a more important use for the factors of production elsewhere. The market, therefore, allocates resources to their most productive point relative to the priority system that the consumers have established.

This can be demonstrated by the following. Assume that the market is in

equilibrium. Also assume that a new technological breakthrough has enabled the production of a new commodity that is highly valued by consumers. The production of the commodity, however, requires the use of factor *A*. Those entrepreneurs who perceive this new profit opportunity will begin to bid for the factor. This increased competition for the available supply of *A* will cause its price to rise, forcing some of the users to *A* to curtail their purchases. But who will be the ones forced to curtail their purchases? Clearly, it will be those utilizers of *A* who are receiving the least remuneration for their product from the consumers, i.e., those who are employing *A* in its least productive point. In this way, the supply of *A* is channeled from uses that the consumers value less highly into uses they value more highly. But further, the rise in the price of *A* will encourage other entrepreneurs, also anxious to make profits, to expand the production of *A*. In this way, the free market works to employ "every possible factor of production for the best possible satisfaction of the most urgent needs of the consumer" (Mises, p. 744).

The important point is that if market prices are interfered with, they become distorted and no longer reflect the demands of society. Resources are misallocated and production impeded. Since these inefficiencies reduce the size of the economic product relative to what it would have been on the unhampered market, intervention can only serve to increase the discrepancy between realized and fancied utility.

The Nature of Government

Government is the agency that exercises a monopoly on the legal use of coercion in society. Government is not a productive institution. It has no resources that it has not first taken from others. This means that in order for it to *defend* individuals from aggression by others, it must *first* exercise *prior* aggression, *viz.,* taxation, in order to obtain operating revenues. Thus, violence is inherent in every act of government.

In order to understand what may be called the logic of the Austrian analysis of government, it is necessary to distinguish between the actual or *real-world situation* (the existing state of affairs) and what may be termed the *counterfactual situation* (the state of affairs that *would have occurred* had its emergence not been coercively prevented). Since on the free market, all individuals must either remain on the same utility plane or move to a higher one, the market (provided major externalities have been internalized) increases "social utility." And because coercion, either present or prior, is inherent in government, *any* government intervention into the market *must* reduce at least one individual's actual or realized utility relative to that person's counterfactual utility, that is, to what it would have been on the unhampered

market. The conclusion of the Austrian approach is, as Rothbard points out (1956, pp. 252–53), that "no act of government . . . can increase social utility." Hence, he continues, "a free and voluntary market 'maximizes' social utility," provided, he quickly adds, terms such as *maximize* and *increase* are interpreted in an ordinal rather than a cardinal sense.

Currently, in excess of 50 percent of the budgets of practically all governments in the world are devoted to transfer payments. This makes wealth transfers, at least quantitatively, the most important function of government. The official justification for these activities is that they increase "social utility." Since transferring wealth from some individuals to others reduces choice sets of the former while expanding them for the latter, this means that some are forced to choose between options that provide them with less utility than those they would have chosen on the market, while others are able to choose from options that would not be open to them on the market. Since the utility of some is reduced while that of others is increased, any claim that social utility has been increased implies the ability to compare, if not measure, the utilities of different individuals. Thus, the *justification* for wealth transfers clearly implies the use of utility in its cardinal sense (Simon), defined here as the ability to measure and/or compare the utilities of different individuals. Those who maintain that wealth transfers can and do increase social utility should be able to support this claim with adequate evidence. The claim will be examined using two different standards: (a) what may be termed absolute *or apodictic certainty* and (b) the more relaxed standard of *reasonable certainty.*

What can be said with *absolute certainty* about the effect of government wealth transfers on utility in a cardinal sense? Since, despite numerous creative attempts, no one has been able to show that direct interpersonal comparisons of utility are possible, *nothing* can be said with absolute certainty about social utility when there are both gainers and losers. It is possible that the beneficiaries benefit more than the losers are harmed, thereby increasing social utility. The reverse is also possible. This means that it is impossible to ascertain whether a given government action increased or decreased net social utility or left it unchanged. As Rothbard has put it (1956, p. 252), "As economists we can say nothing about social utility in this case since some individuals have demonstratably gained, and some have demonstratably lost in utility, from the government action." But there is *one* possibility from which it is possible to draw conclusions that are *absolutely certain* even when coercion is present. If a coercive act (a) makes no one better off, but (b) leaves at least one person worse off, it follows that social utility is reduced.

The results of the foregoing are interesting. One may say with certainty that the market *always* increases social utility. On the other hand, one can *never* state with certainty that any act of government ever increases social utility, and the only conclusion one could ever make with absolute certainty

is that a given act of government *reduced* "social utility." And this, as we shall see, is not as unlikely as might be thought.

This is as far as one can go while remaining in the realm of *absolute* certainty. However, by relaxing the standards from absolute to *reasonable* certainty, one cay say much more.[1] There are two ways to examine this issue: (1) indirect, interpersonal utility comparisons within a given time-slice and (2) intrapersonal utility comparisons over time. The question is, even using the relaxed standard of reasonable certainty, do these approaches provide any convincing evidence that coercive wealth transfers may increase social utility?

Indirect, Interpersonal Utility Comparisons

In ordinary speech we make interpersonal comparisons of mental states. We often hear or make statements to the effect that *A* is happier, sadder, more in love, or in greater pain than *B*. Granted that such loose talk can hardly qualify as scientific assessments, nevertheless, it would be rash to dismiss it as meaningless.

There is, it is obvious, wide variation in *what* makes different individuals happy or sad plus some variation in *how* individuals express these mental states. But that there is a great deal of sameness or commonality, especially in the outward expressions of our mental states, cannot be denied. For example, laughter denotes happiness; a grimace, pain. One can state with conviction, even of strangers, that they had happy expressions, showed friendly faces, were pictures of health, did not look well, or were in pain.

In a similar vein, people's tastes are in large part a product of their past personal histories, the quality and quantity of their education, and their culture. It is therefore reasonable to suppose that there is a great deal of variety, especially cross-culturally, in what affects our utilities. Observation appears to confirm this. But, again, this should not be interpreted as meaning that there are not equally significant similarities. Observation bears this out as well. Whenever and wherever people in socialist countries have been permitted to express their preferences (as in post-Mao China and, to a lesser extent, in the countries of Eastern Europe and the Soviet Union during the past two decades or so), they have opted for higher standards of living. A major reason socialist politicians have been so successful in the third world is that they have been able to convince large numbers of people that "redistribution" from the rich to the poor will bring them abundance. It seems clear that such politicians would receive very little support if they promised oppression and poverty. Indeed, the uniformity of the desire for material wealth, even cross-culturally, is remarkable, with Japan being only the most striking example. It is not too much to say that the life-style of the "materialistic West" is the envy of the world. Indeed, the lure of the "American Way of Life" sparked the largest migration in the history of the world (Sowell, 1981, p. 3).

This is not to say that all individual preferences are identical—which is obviously not the case. It is only to say that there is probably enough similarity to enable us to make rough comparisons with reasonable certainty.

This conclusion is strengthened by the "law of marginal utility" which informs us that *all* individuals *always* act to satisfy their most urgent (satisfiable) desire first, their second most urgent desire second, their third most urgent third, etc. This, of course, deals solely with intrapersonal rankings of preferences and therefore does not, in itself, permit interpersonal comparisons, much less measurement, of utility. But while this law says nothing about either the content or degree of particular individuals' utilities, it does show that all individuals act according to the same *process* or *principle, viz.,* the maximization of their utility, broadly conceived.

Put differently, the fact that all of us are members of the same species, homo sapiens, means not only that we must, by definition, possess certain essential traits in common, it also means that *introspection* is an available tool in understanding the members or units of that class. "Whenever we discuss intelligible behavior," Hayek has observed:

> We discuss actions which we can interpret in terms of our own mind. . . . If we can understand only what is similar to our own mind, it necessarily follows that we must be able to find all that we can understand in our own mind. . . .
>
> If what we do when we speak about understanding a person's action is to fit what we actually observe into patterns we find ready in our own mind, it follows, of course, that we can understand less and less as we turn to beings more and more different from ourselves. But it also follows that it is not only impossible to recognize, but meaningless to speak of, a mind different from our own. What we mean when we speak of another mind is that we can connect what we observe because the things we observe fit into the way of our thinking. (pp. 66–68)[2]

If Hayek is correct, then such universal principles of human action as the law of marginal utility combined with the observed similarities in such things as individual preferences and the outward manifestation of mental states permit us, after making due allowance for the observed variation in individual preferences, not to measure utilities but, rather, to make reasonably certain rough comparisons of utility.

If one insists on conceiving of utility in cardinal rather than ordinal terms, it follows that one must view it, just like any other phenomenon amenable to measurement, in terms of a continuum rather than a dichotomy. But since one cannot make *exact* measurements but, at best, only rough comparisons, the result would resemble a black/white color spectrum. One can distinguish black from white, but as one moves down the spectrum, one cannot

tell where black ends and white begins. There is a massive "gray area" in between which is neither black nor white. Similarly, one can distinguish a child from an adult. One can even chart the evolution of the child into an adult, marking not just the years, but the months, days, hours, and even seconds. Yet, despite the precision of the measuring instrument, one is still unable to point to an exact time that the child becomes an adult. The same is true of the "utility continuum." Given (a) the differences in individual preferences and (b) the indeterminacy of interpersonal utility comparisons, assessments of differences in interpersonal utility planes are possible with even reasonable certainty *only at polar extremes.* To expect any more than this would be like trying to thread a needle with a jackhammer.

What, then, can be said with reasonable certainty of interpersonal utility comparisons? Compare, for example, the position of multimillionaire Robert Baron, III, with that of an indigent, Herb, living at or near starvation. An extra dollar would enable Robert to satisfy a preference that is ranked, say, one millionth on his utility scale while that same dollar would enable Herb to satisfy a preference that is ranked fifth on his. It is reasonable to suppose that the satisfaction of Robert's one millionth preference would not provide as much utility to Robert as the satisfaction of Herb's fifth preference would provide to him. It is, of course, conceivable that the reverse is the case. But for a dollar to provide Robert with more satisfaction than the indigent would so deviate from what observation, experience, and introspection tell us is typical for human beings as to be characterized as abnormal. And, since an abnormality is, by definition, a departure from the norm, the burden of proof is on those who assert an abnormality to demonstrate its existence rather than on others to disprove the assertion. In the absence of some fairly convincing demonstration of why and how either Robert's or Herb's sensibilities differ so markedly from those of ordinary human beings, the claim can be treated with a large degree of skepticism, if not contempt.

Does this lead to the conclusion that a massive redistribution of wealth would increase social welfare? I think not.

Wealth transfers can be divided into three types: (1) upward wealth transfers, where wealth is transferred from poorer to wealthier individuals or groups, (2) intragroup wealth transfers, where wealth is transferred from one poor individual or group to another poor individual or group, or from one middle-class individual or group to another, etc., and (3) downward wealth transfers, where wealth is transferred from wealthier individuals or groups to poorer ones.

Upward transfers of wealth would reduce the choice set among those whose choice set is already relatively small and expand the choice set among those whose choice set is already relatively large. The result is clear. It would reduce preference satisfaction among those who were already in the position of satisfying the fewest of their preferences. And it would increase satisfaction

among those already in the position of satisfying the largest number of their preferences. Since such transfers move us in the position of polar extremes, one can be reasonably certain that upward transfers of wealth reduce social utility and, therefore, could not be justified on the basis of welfare criteria.

Since polar extremes are not present in intragroup transfers, it is reasonable to suppose that the benefits of the recipients are roughly offset by the costs to the payers. It is not possible, therefore, with any degree of certainty to show that transfers either did or did not increase social utility. Given this uncertainty, such transfers in and of themselves could not be justified on the basis of welfare considerations.

Downward transfers present the most interesting case. We have already seen that it is reasonable to assume that an additional dollar for Herb would increase Herb's utility more than the loss of a dollar by Robert would reduce his utility. Hence, downward transfers would appear to increase social utility. But appearances can be deceiving. For transfers, especially if they are either downward or intragroup, initiate a process whose outcome makes even the initial beneficiaries of the transfers worse off than they would have been even without the transfer. In order to understand this process, we need to turn to the second approach, the intrapersonal comparison of utility over time.

Intrapersonal Utility Comparisons over Time

The second approach differs from the first in that it does not attempt to compare the utilities of different individuals, but to compare the utilities of the same individual at different times.

Wealth can be obtained through two fundamentally different means: (1) voluntarily (i.e., through production, by exchange, or as a gift) or (2) coercively (i.e., by taking it from others).

Assume that Robert's wealth was obtained coercively. The transfer of all or a large part of Robert's wealth would reduce his utility. But there are additional results. Since he could no longer benefit from his coercive activities, the transfer would act as a deterrent or disincentive to coercion. And if Robert were permitted to retain noncoercively obtained wealth, the transfer would operate as an incentive for him to divert his energies from coercion to production. The result would be not only an increase in Robert's utility from what it was after the transfer, but his production would increase "social output" and, therefore, social utility. Moreover, if the transfer went to those who had originally earned the wealth, not only would it increase their utilities immediately, but keeping the rewards or gains from their production would, it is likely to assume, stimulate producers to expand their outputs, thereby increasing not only the utilities of the producers but social utility as well.

If we assume that Robert obtained his fortune voluntarily, the incentives created by wealth transfers are exactly reversed. The immediate effect of the

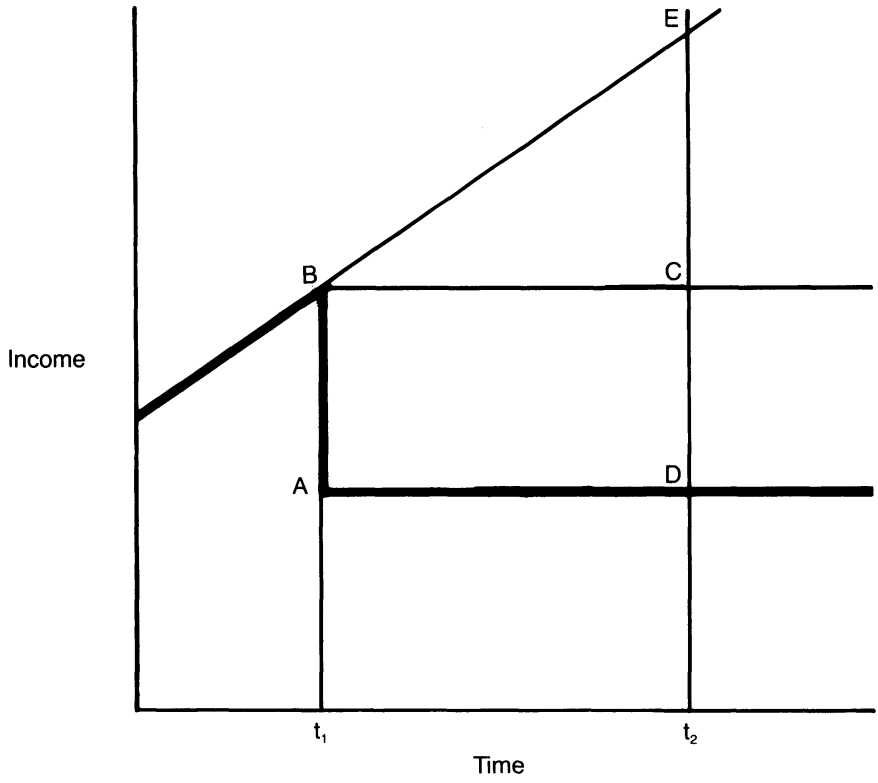

Figure 1. Robert

government transfer from Robert to Herb would be, as shown in figures 1 and 2, to reduce Robert's utility while increasing Herb's. But this is only the beginning of the process. How would Robert react to the continued appropriation of his earned income (the area *ABCD* in figure 1)? Put differently, how would he react to policies that prevented him from raising his utility beyond a certain level, say *A* in figure 1?

If Robert has obtained the highest utility plane possible under the circumstances, he would, of course, cease trying to increase his utility and rest content with simply maintaining it at the current level. This means that the transfer activities would, at time t_2, result in a discrepancy between Robert's realized income, *D,* and his counterfactual income, *E.* Moreover, it means that society as a whole would be impoverished by the loss of Robert's production equal to the area *BCE.*

The wealth transfer is likely to have an equally significant impact on

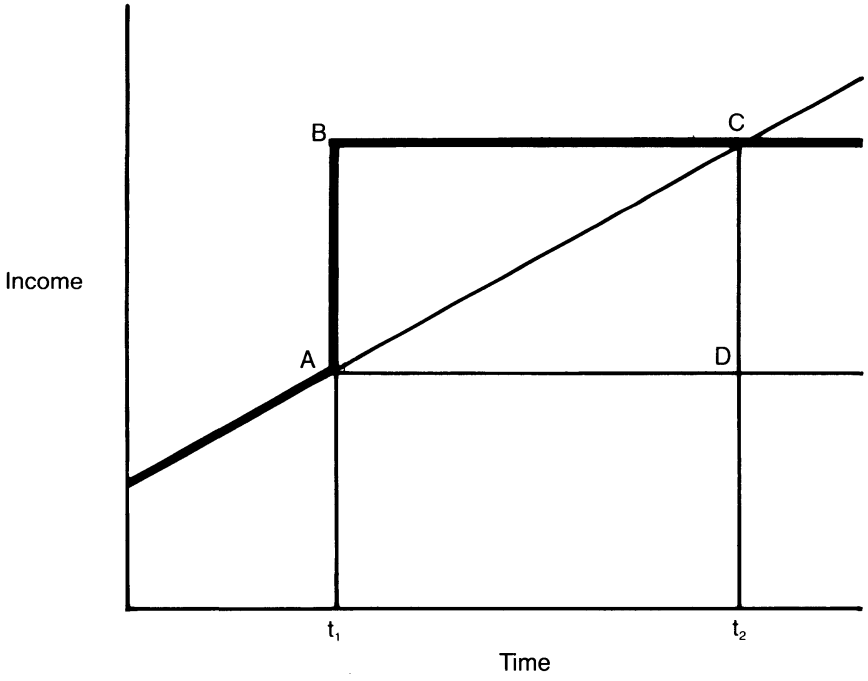

Figure 2. Herb

Herb's behavior. Since the transfer brings about an immediate increase in Herb's income from *A* to *B* (in figure 2), and since Herb knows that the government will not permit his income to drop below that level, it is obvious that it would reduce, perhaps even eliminate, his incentive to produce. So long as Herb's earned income falls below *B*, his work is simply wasted effort on his part. That is, since work is a disutility, any work yielding an income at or below line *BC* would reduce Herb's utility since he could obtain the same or greater wealth without work. Thus, the transfer means that Herb would be better off by reducing the hours he works or by not working at all. If, for simplicity, we assume that Herb reacts to the transfer, like Robert, by maintaining his earned income at his current level (*A* in figure 2), the transfer, represented by the area *ABCD*, increases Herb's income at time t_1. At time t_2, his total income (earned income plus transferred income) is *C*. But this is the *same* income that he *would be enjoying* had he not received any transfers in the first place. Hence, other things being equal, Herb is no better off at t_2 with transfers than he would have been in their absence; and "society" is poorer to the extent of Herb's lost production, i.e., the area *ACD* in figure 2.

The result is interesting. The government transfer hurt Robert. On the other hand, it did not benefit Herb, at least in the *long run*. Since no one was benefited and at least one person was hurt, the transfer "benefits" actually *reduced* social utility in this case.

One possible counterargument is that both Robert and Herb simply exchanged more leisure and a smaller income for a larger income with more work, and, since leisure is a valuable good which contributed to one's utility, neither has had their utility levels reduced. We are constantly making incremental adjustments between leisure and wealth. But it is important to recognize that if one's preferred option is additional wealth and if this option is coercively barred, then even if additional leisure is the best of the remaining options, it still represents a decline in utility. If there is a reduction in the overall economic growth rate in a particular country and if that reduction can be traced to government policies, it is clear that most if not all of that government's citizens would have preferred the additional wealth. This, of course, would be especially true if the slowdown resulted from declining productivity and therefore produced little if any additional leisure. Recent empirical studies (see, e.g., Landau; Olson; and Krauss, especially pp. 157–60), provide some indication that this, in fact, is the case.

Similarly, if economic output increases following a reduction in government regulation, one can conclude that all or most members of the society preferred additional income to leisure and that enforced leisure, provided there was some, meant that the members' realized utility was below their counterfactual utility. The dramatic increase in agricultural output in those third world countries that have recently reduced government interference in the agricultural sector compared to the continued low or even declining outputs of those countries with prohibitive taxes on and extensive government involvement with agriculture indicates that low economic output does not represent a preference for leisure over wealth (*The Economist;* Osterfeld, 1985a; *Time;* and Francis).

One can also argue that there is no reason that long-run interests should take precedence over short-run interests. But it is a serious mistake to phrase the issue in this way. Individuals maximize their utility by making trade-offs "at the margins." They choose to consume X units of good A, $X + 1$ units of good B, and $X - 2$ units of good C, etc. In similar fashion, individuals maximize their utility by choosing to satisfy some desires in the present, others at $t + 1$, and still others at $t + n$. One may choose to eat a hamburger now, buy an automobile next year, and go to college in ten years. We live in both the present and the future. We are constantly making trade-offs between satisfying certain desires now and satisfying other desires at various times in the future. The important point is that if one is to choose the optimal mix of present and future satisfactions, the "rules of the game" should not be rigged so as to encourage or even induce individuals to behave in the short run in

ways that produce long-run results that even the actors themselves would disapprove of. For example, a 100 percent tax on all production would, it is fair to assume, eliminate all productive behavior. This would be the result even though the consequences would be (a) easy to foresee and (b) those that everyone would disapprove of. In short, the tax would induce or *trap* people into behaving in the short run in ways that would produce in the long run results which they not only could predict but would regard, *even at the time of their choices,* as undesirable or irrational. Whether or not a choice is rational depends on both the goals and values of the individual making the choice and the context within which the choice is made. It is possible that *within a given context,* the most rational choice open to individuals has consequences that even they would regard as "irrational," i.e., counter to their own preference rankings. There is increasing evidence that government tax policies, transfer payments, and the like place individuals within decision-making contexts of this type.

There is, for example, substantial evidence that the Great Society and War on Poverty programs of the 1960s not only failed to eliminate poverty in the United States but actually led to an increase not only in the number but in the percentage of poor. In trying to explain this phenomenon, Charles Murray (p. 9) pointed out that "A government's social policy helps set the rules of the game—the stakes, the risks, the payoffs, the tradeoffs, and the strategies for making a living, raising a family, having fun, defining what 'winning" and 'success' mean. . . . The most compelling explanation for the marked shift in the fortunes of the poor," from the mid-1960s on, says Murray,

> is that they continued to respond, as they always had, to the world as they found it, but that we . . . had changed the rules of their world. . . . The first effect of the new rules was to make it profitable for the poor to behave in the short term in ways which were destructive in the long term. Their second effect was to mask these long term losses—to subsidize irretrievable mistakes. We tried to provide more for the poor and produced more poor instead. We tried to remove barriers to escape from poverty, and inadvertently built a trap.

Numerous other studies, both of the United States (see, for example, Gwartney and McCaleb; Gallaway and Vedder; Lee; Osterfeld, 1980) and of foreign nations (Lee; Kraus, Bauer, Bauer and Yamey; Sowell, 1983; Osterfeld, 1982; Osterfeld, 1985a; Osterfeld, 1985b, Bandow), reached much the same conclusions: government transfer programs, tax policies, and the like make it rational for the poor to choose options that will retard or even reverse their economic development, i.e., it induces individuals to make choices counter to their *own* preferences.

There is one remaining but vitally important question: how long would it take for natural economic growth to put someone like Herb on a higher utility plane than he was on after the receipt of the income transfer? This cannot be stated with certainty. It depends on many factors such as the size of the benefits received by Herb and the overall disincentive impact of income transfers.

Nevertheless, some rough assessments can be made. Norman Macrae (p. 20) has shown that between the year 1 A.D. and 1776 (the date of publication of Adam Smith's *Wealth of Nations*), average per capita income remained fairly constant at about $250 (in 1975 dollars). The percentage of mankind living below the poverty level was 99 percent. Today, that percentage is considerably less than 65 percent. Since world population has increased sixfold during this time, this represents an *eightyfold* increase in world output in the two-hundred—year time span between 1776 and 1975.

If one uses more current data, Landau (p. 460) has shown that the annual growth rate of per capita GDP for the sixteen most developed market economies averaged 6.3 percent for the 1955–73 period. The average share of government was 27 percent in 1955, but rose to 43 percent by 1979. Interestingly, the average economic growth rate for the sixteen countries dropped to a mere 2 percent during the 1973–79 period. Landau's rather cautious conclusion (p. 473) is that "the growth of government consumption and investment expenditure has helped 'cause' the slowdown in economic growth."

If, then, one assumes that 6.3 percent is the *normal* growth rate for a free market economy, per capita output would double every eleven years. This means that if transfers increased Herb's income by, say, a relatively modest 33 percent, his realized income, even with transfers, would fall *below* his counterfactual income in less than four years. If growth rates were faster, which seems likely since the 6.3 percent growth rate occurred while government was consuming 27 percent of the GDP, the time frame would be even shorter.

Thus, there is good reason to believe that government transfers actually reduce "beneficiary" income over even relatively short periods of time. And since the evidence also shows that the vast majority of people prefer more wealth to less wealth, it is reasonable to conclude that government transfers from rich to poor reduce the intrapersonal utility of all involved including the recipients.

Conclusion

The market process, provided it operates within a legal framework that internalizes externalities, operates so as to perpetually increase the utilities of all participants. In contrast, government intervention reduces social utility.

This can be demonstrated with certainty when utility is interpreted in ordinal terms. Although nothing can be said with certainty when utility is interpreted in cardinal terms, we have found no convincing evidence that any government transfers ever increase social utility, but considerable evidence that they reduce it. In short, the best available evidence indicates that government transfers inevitably reduce social utility regardless of whether that concept is interpreted in ordinal or cardinal terms.

It may be objected that only government transfer policies have been considered and that other government policies may have very different effects. But the fact is that there are no "other" policies. All government policies transfer wealth either explicitly or implicitly. Minimum wage rates, for example, "represent an implicit transfer *within the least advantaged classes*, from the most unskilled workers (who can no longer get any sort of job) to the best unskilled (who are integrated relatively more easily into the labor market). In the last analysis it is a regressive social measure" (Lepage, p. 122), i.e., it is an upward transfer of wealth.

Recognition of this significant but often overlooked fact has profound ramifications. For, if *all* government policies transfer wealth and if all the available evidence shows that transfers reduce social utility regardless of whether that term is interpreted in ordinal or cardinal terms, then the inescapable conclusion is that, based on social welfare criteria, government is an unjustifiable institution. Yet, even such insightful and normally courageous Austrians as Mises and Hayek have stopped short of pushing their analyses to their logical conclusions. Mises, for example, noted that since there will always be antisocial individuals, the preservation of social order necessitates the use of violence to crush such peacebreakers. Thus, the state is *sine qua non* of any tolerable social order (Mises, pp. 148–49). Unfortunately, since Mises, much like John Locke three centuries before him, never entertained the notion that police and court services could be supplied competitively, he ignored the anarchist implications of his own analysis and inconsistently advocated a (minimal) state.

More recently, several authors have investigated the possibility that police and court services might be supplied competitively and have concluded not only that this would be feasible but that it would be *desirable* as well. It is no accident that the most notable of these is Mises' protege Murray Rothbard (see Rothbard, 1970b; Rothbard, 1973. Also see Perkins and Perkins; Tannehill and Tannehill; Tuccille; Friedman; Sanders; and Osterfeld, 1986).

Notes

1. Whether one wishes to admit as evidence conclusions based on such relaxed or weak assumptions is another question altogether.

2. Adam Smith (1969, pp. 3–5) reaches much the same conclusion:
As we have no immediate experience of what other men feel, we can form no idea of the manner in which they are affected, but by conceiving what we ourselves should feel in the like situation. Though our brother is upon the rack as long as we ourselves are at our ease, our senses will never inform us of what are his sensations. . . . By our imagination we place ourselves in his situation, we conceive ourselves enduring all the same torments, we enter as it were into his body, and become in some measure the same person with him, and thence form some idea of his sensations, and even feel something which, though weaker in degree, is not altogether unlike them. . . . Whatever is the passion which arises from any object in the person principally concerned, an analogous emotion springs up, at the thought of his situation, in the breast of every attentive spectator.

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Austrian Methodology: The Preferred Tax Type

Jeffrey Herbener

This article illustrates the usefulness of the methodology of the Austrian school of economics. No scientific inquiry can occur without a method, be it carefully considered or willy-nilly. Yet, mainstream economists pay little attention to the methods they use. Apparently they are satisfied to mimic the method of physics.

For economists as a whole, the Austrians stand virtually alone as students of methodology. The usefulness of the economic theory developed from their method challenges mainstream economists to reconsider their own methodology.

This article poses such a challenge by presenting an Austrian school critique to the indifference curve analysis proof that an individual prefers an income tax to an excise tax of equal amount. The first section gives a brief overview of the Austrian methodology, a theory of property rights plus the resulting market system, and, finally, the effect of invasion into the market. The second section reviews indifference curve analysis and its application to tax types. The third contains the Austrian critique of indifference curve analysis and its application to tax type. The last section provides concluding remarks.

Austrian Methodology

Austrian economists study all human action, including economics, using the axiomatic-deductive method of logic.[1] This methodology employs the rules of deductive logic to derive conclusions from basic premises. These conclusions will be true if the premises are true and the logical steps used in their derivation are valid.

The science of economics begins with the premise that each individual human acts. The existence of human action is self-evident. Furthermore, the premise rises to the status of a axiom since any attempt to refute the premise is human action. The entire body of economic theory derives from the fundamental axiom (and, as needed, ancillary premises).[2] For example:

Let us consider some of the immediate implications of the action axiom. Action implies that the individual's behavior is purposive, in short, that it is directed toward goals. Furthermore, the fact of his action implies that he has consciously chosen certain means to reach his goals. Since he wishes to attain these goals, they must be valuable to him; accordingly he must have values that govern his choices. That he employs means implies that he believes he has the technological knowledge that certain means will achieve his desired ends. Let us note that praxeology does not assume that a person's choice of values or goals is wise or proper or that he has chosen the technologically correct method of reaching them. All that praxeology asserts is that the individual actor adopts goals and believes, whether erroneously or correctly, that he can arrive at them by the employment of certain means.

All action in the real world, furthermore, must take place through time; all action takes place in some present and is directed toward the future (immediate or remote) attainment of an end. If all of a person's desires could be instantaneously realized, there would be no reason for him to act at all. Furthermore, that a man acts implies that he believes action will make a difference; in other words, that he will prefer the state of affairs resulting from action to that from no action. Action therefore implies that man does not have omniscient knowledge of the future; for if he had such knowledge, no action of his would make any difference. Hence, action implies that we live in a world of an uncertain, or not fully certain, future. Accordingly, we may amend our analysis of action to say that a man chooses to employ means according to a technological plan in the present because he expects to arrive at his goals at some future time.

The fact that people act necessarily implies that the means employed are scarce in relation to the desired ends; for, if all means were not scarce but superabundant, the ends would already have been attained, and there would be no need for action. Stated another way, resources that are superabundant no longer function as means, because they are no longer objects of action. Thus, air is indispensable to life and hence to the attainment of goals; however, air being superabundant is not an object of action and therefore cannot be considered a *means*, but rather what Mises called a "general condition of human welfare." Where air is not superabundant, it may become an object of action, for example, where cool air is desired and warm air is transformed through air conditioning. Even with the absurdly unlikely advent of Eden (or what a few years ago was considered in some quarters to be an imminent "postscarcity" world), in which all desires could be fulfilled instantaneously, there would still be at least one scarce means: the individual's time, each unit of which if allocated to one purpose is necessarily not allocated to some other goals.[3]

This scarcity implies that an individual cannot fulfill all goals but must allocate means to the most highly valued ends, leaving less valued ends unfulfilled.

Means used to accomplish ends are called goods. Conceptually, action

toward means can be either production, consumption, or exchange. Production is an act that furthers a good toward its final stage where it is consumed. Consuming a good renders service (value) to the individual consumer. Voluntary exchange of goods is an act of production that moves goods from less valuable to more valuable uses. All such voluntary trades occur in (or constitute) the market.

Property Rights. Since individuals exchange possession of goods and service (alienable property) in the market, any explanation of markets must contain a theory of ownership rights to property.[4] Briefly, the system of property rights that generates free market exchange as a by-product contains five parts: (1) Each individual owns himself, some parts of which are exchangeable (e.g., labor) and some parts of which are inalienable (e.g., free will). (2) When an individual mixes his labor with other resources, he comes to own the property created. (3) In a similar manner, the first individual to transform virgin land becomes its just owner. (4) The only other way to justly acquire ownership rights to property is voluntary exchange. (5) An individual can defend his property against aggressive violent invasion—coercion—by using a proportional amount of defensive violence to repel the invader. Finally, these rights are absolute and equal for all individuals.

The Market. Free market exchange will result from this system of property rights, with the following effects.[5] First, each voluntary exchange provides benefit for all traders. Individuals demonstrate their gain by the very act of voluntary trade. Taken together, all such acts create the greatest possible value of goods and, thus, maximize the utility of the individuals in the market. Second, harmony exists between individuals since each person's welfare depends on gaining the voluntary cooperation of others. If a person disrupted this harmony, he would injure himself. Third, man extends his power over nature to produce goods because he claims them as his own. This occurs through specialization and division of labor which the existence of trade makes possible. Fourth, individuals produce in a pattern desired, not by themselves, but by others. That is the only way to earn wealth on the market. Fifth, voluntary trading results in a set of market prices. These prices are established in accord with the values individuals place on various goods; therefore, each individual can use these prices to calculate how to effectively serve others. These activities create wealth which is reflected in the increased value of goods and the existence of profit. Finally, the market contains incentives for production and improved living standards. This is a direct consequence of ownership of produced property. The market renders mutual benefit, harmony, peace, power of man over nature, efficiency, calculation, and productivity. But what of involuntary exchange—the opposite of the market?

The next section traces the effects of placing a protection racket that engaged in such coercion within a market community.

Invasion of the Market. The protection racket will engage in several actions. First, the racket extracts payment from individuals with the use or threat of physical violence. This involuntary exchange violates the individual's property rights by establishing a hegemonic relationship of command and obedience. The racket and its favorites benefit while the victims suffer. Second, the racket provides differing amounts of protection to different individuals regardless of an individual's desire for it. Without voluntary payments, the racket cannot know the strength (if any) of the individual's demand for protection. Thus, even if it desires to, the racket cannot efficiently provide the pattern of protection services that individuals desire. Third, the racket's activity does not increase the value of goods in the community and probably decreases their value. When providing protection, the racket diverts resources from producing goods that individuals demonstrably desire on the market. Instead, these resources produce what the protection racket and its favorites desire. The preracket pattern of market production, exchange, and consumption is completely transformed into a less efficient (less valuable) pattern. These effects will hold true when any group establishes the hegemonic relationship.

Government. The effects of government activity are analogous to those of the protection racket. Taxes are involuntary payments extracted by the threat or use of force. If not, individuals would gladly make these payments voluntarily and could voluntarily withdraw them. Taxes cannot exist in the market, but are always invasions into the market. As with any other form of violence, taxes disrupt the effectiveness of voluntary activity (destroy wealth).

In the same manner as the protection racket, all government activity (i.e., taxing and spending) transfers wealth from one group to another, destroying some in the process. This misallocation occurs as government coerces individuals to give up part of their income (which was created by servicing the desires of others) and then uses these funds to bid resources away from them. Individuals are burdened and resources are reallocated from serving individual desires to satisfying the ends of government officials. The extent of the burden of this misallocation is directly proportional to the level of taxation and government expenditures compared to the level of private income. In other words, the type of tax is much less significant than the level of taxation (and expenditure).

Because of the coercive nature of government activity, two additional results come forth. First, by voluntarily purchasing an item on the market, an individual demonstrates that he values the item more than the money price. But in paying taxes, he makes no such demonstration. The government

does not know, as a business does, the value individuals place on its activity. Since government cannot obtain the information and incentive by demonstrated preferences of individuals, they cannot efficiently serve individuals. Second, the government creates a disjunction between benefit from and payment for their activities. The taxpayer pays and the benefits go to government officials and those who obtain government expenditures. This creates both a class of forced riders and a class of free riders. In Rothbard's words:

> One of the conclusions of this analysis is that the purely free market maximizes social utility, because every participant in the market benefits from his voluntary participation. On the free market, every man gains; one man's gain, in fact, is precisely the consequence of his bringing about the gain of others. When an exchange is coerced, on the other hand—when criminals or governments intervene—one group gains at the expense of others. On the free market, everyone earns according to his productive value in satisfying consumer desires. Under statist distribution, everyone earns in proportion to the amount he can plunder from the producers. The market is an interpersonal relation of peace and harmony; statism is a relation of war and caste conflict. Not only do earnings on the free market correspond to productivity, but freedom also permits a continually enlarged market, with a wider division of labor, investment to satisfy future wants, and increased living standards. Moreover, the market permits the ingenious device of capitalist calculation, a calculation necessary to the efficient and productive allocation of the factors of production. Socialism cannot calculate and hence must either shift to a market economy or revert to a barbaric standard of living after its plunder of the preexisting capital structure has been exhausted. Any and every intermixture of government ownership or interference in the market distorts the allocation of resources and introduces islands of calculational chaos into the economy. Government taxation and grants of monopolistic privilege (which take many subtle forms) all hamper market adjustments and lower general living standards. Government inflation not only must injure half the population for the benefit of the other half, but may also lead to a business-cycle depression or collapse of the currency.
>
> We cannot outline here the entire analysis of this volume. Suffice it to say that in addition to the praxeological truth that (1) under a regime of freedom, everyone gains, whereas (2) under statism, some gain (X) at the expense of others (Y), we can say something else. For, in all these cases, X is not a pure gainer. The indirect long-run consequences of his statist privilege will redound to what he would generally consider his disadvantage—the lowering of living standards, capital consumption, etc. X's exploitation gain, in short, is clear and obvious to everyone. His future loss, however, can be comprehended only by praxeological reasoning.[6]

Such is the nature of government and the effects of its activity derived from the Austrian method. The next section discusses the indifference curve analysis and its application to the problem of optimal tax type.

Traditional Analysis

Methodology

The indifference curve analysis attempts to construct a model of individual behavior using the axiomatic-deductive method.[7] It begins with five premises. First, an individual can compare different market baskets (combinations) of goods. In any comparison, the individual either prefers basket *A* to basket *B*, prefers *B* to *A*, or finds *A* and *B* of equal value. Second, an individual has transitive preferences: if *A* is preferred (indifferent) to *B* and *B* is preferred (indifferent) to *C*, then *A* is preferred (indifferent) to *C*. Third, the individual prefers more of any good to less of the good. Fourth, only two goods (*X* and *Y*) exist. Fifth, an individual will trade successively smaller amounts of *X* for each additional unit of *Y* he can acquire while maintaining a fixed amount of utility.

From these premises, the following conclusions (stated in geometric terms) are derived. The first premise implies the existence of indifference curves. Each curve shows all combinations of the two goods that render equal satisfaction. From the second premise it can be inferred that indifference curves do not intersect. The third premise implies that (1) indifference curves have negative slopes and (2) the farther a curve lies from the origin, the greater the level of utility. Finally, indifference curves are convex to the origin as implied by the fifth premise.

Proof

This section reviews how various authors have used the indifference curve technique to "prove" that an excise tax makes a consumer worse off than an income tax of equal amount.[8] An individual has the choice between commodity *X* and other goods (*M*). These options plus the individual's income render the budget constraint M_OX_O in figure 3. Given a set of preferences that generate a well-behaved indifference map, the individual selects the combination at point *A* obtaining a utility level of U_o. From this initial situation, the traditional analysis seeks to show that an excise tax reduces utility more than an income tax when the two raise the same amount of tax revenue.

The proof proceeds by imposing an excise tax, then allowing the individual to adjust to the tax, then offering an income tax, and finally letting the individual select between the two posttax situations. Imposition of an excise tax on *X* increases the price of *X*, causing the budget line to rotate inward to M_OX_E. As a result, the individual adjusts to combination *B* with a utility level of U_E. After the adjustment, the government receives M_OM_I in tax revenue.

An equal income tax raises the same tax revenue (M_OM_I) as the excise tax, but does not alter relative prices. Graphically, the income tax shifts the

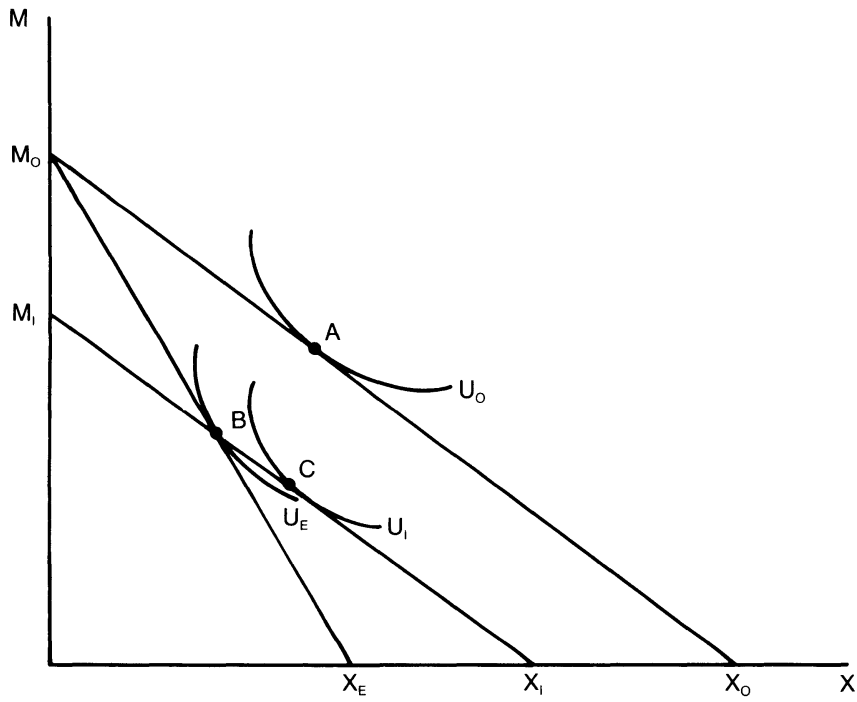

Figure 3

original budget line parallel to M_IX_I. Compared to the excise tax budget line, the individual's feasible opportunities increase by the triangle BX_IX_E. The individual responds by purchasing more X and less M, moving from point B to point C. This readjustment increases satisfaction from U_E to U_I, while allowing the government to raise the same tax revenue. Furthermore, this conclusion does not depend on the individual's relative preference for X and M. Starting at point B, there must exist a combination on BX_I that renders more utility than combination B. A well-behaved indifference map (implying the tangency of U_E at point B) insures this result.

The rationale for preferring the income tax stems from the substitution effect of the excise tax. By construction, the income effects of the two taxes are identical. Thus, the excise tax differs from the income tax by increasing the relative price of X. As a result, the individual suffers from both an income effect and a substitution effect. (The latter further restricts the individual's feasible opportunities beyond the harm done by the income tax.) Faced with fewer alternatives, the individual must endure a decline in utility.

Austrian Critique

Methodology

In the axiomatic-deductive method, a true conclusion emerges if the premises are true and the logic is valid. A false conclusion could stem from one or a combination of two types of errors: a false set of premises and/or invalid logic. For the preceding analysis, these errors are analyzed in turn beginning with the premises.[9]

Preferences are subjective to each individual. The existence of human action implies that an individual can rank different alternatives from highest valued to lowest valued. An observer can discover a small piece of this ranking only when the individual demonstrates his preferences in voluntary action. Such demonstrations only occur in choosing one alternative instead of another. Indifference never leads to choice; thus, it has no role in a value-free model of preference.

For example, examine the typical construction of an indifference curve.[10] The individual begins with some market basket, say basket *A*, in his possession. Then he is offered basket *B*. He has two alternatives: retain *A* (forgo *B*) or acquire *B* (forgo *A*). There exists no "indifference" alternative. He may *say* he is indifferent, but by choosing one alternative over the other, he *demonstrates* preference.

Furthermore, subjective preferences of different alternatives depend upon the individual's situation. Each time that environment changes, so can his entire preference ranking. Even if an indifference map existed, it could continually shift during the course of an analysis as the individual accepted different market baskets.

Turning to the process of logic, the indifference curve method makes an unanalyzed switch from verbal to mathematical logic between premises and conclusions. This can create error depending on the case involved. Given the premises, an indifference curve is drawn by connecting, with a smooth curve, all market baskets that render the same amount of satisfaction. The conclusions are stated as mathematical properties of this smooth curve. Yet, drawing the curve implies a level of quantification far beyond ranking. It implies that the individual's subjective values can be expressed as a functional relationship between two goods. In addition, the function is smooth and continuous and, thus, it has derivatives at each point. Yet, these characteristics cannot be derived from the premises. They have the status of unanalyzed assumptions. Since their truth is unestablished, so is the truth of any conclusion drawn from them by deduction.

This shift to mathematical logic also implies that mathematical operations can be performed on the satisfaction acquired from different goods. Utilities can be added, subtracted, multiplied, divided, differentiated, etc.

These are also conditions not contained within the premises and, thus, they are open to the criticisms just listed.

In addition, under analysis, these assumptions are false. No unit of measure exists to quantify preferences; thus, they cannot be measured. Furthermore; calculus cannot be employed since derivatives imply infinitesimal changes. But human action only occurs in perceptible discrete lumps. What is true for the derivative is true for the slope of a curve at a point.

Application

Using indifference curve analysis, authors have concluded that with a given amount to pay, an individual prefers an excise tax to an income tax. Assuming the validity of the indifference curve method, several criticisms exist regarding this application.

Return to the protection racket analogy to recreate the analysis. The racket decides to make the burden of its plunder as light as possible on the victims. (Why they or the government would want to do this is left to your imagination.) It tells each citizen the following: "You must pay x amount in tribute, but we will allow you to choose one of two payment methods. Either we will take x out of your income or we will raise the price of electricity (or some other good) that you purchase until your expenditure on electricity increases by x." When the citizen selects one or the other method, we have an answer to the question. But suppose a mainstream economist conducted an analysis and found that each citizen would always prefer the first alternative because, compared to the second, he will suffer less. The citizen's response would likely be, "Why should I suffer at all? I really prefer no protection racket." In fact, returning to figure 3, the mainstream economist's method actually shows that the individual prefers no tax (point A) to either type. To conclude that the individual is better off at point C, the mainstream economist must make a massive value judgment in favor of the protection racket's claim to take the citizen's wealth (comparable to validating the same claim by the government). He becomes an ethicist by recommending that the government should use the income tax. In turn, the hapless citizen knows what to think of this "value-free science."

It does not suffice to retort that the government provides services to the individual; so does the protection racket. The point is that the individual demonstrates that these services are not worth their opportunity cost when he chooses not to purchase them on the market. In addition, the indifference curve technique says nothing about the benefits of government activity, only about burden. This is as it should be since coercion (the method of government) divorces payment for a service from reception of the service—creating forced and free riders.[11]

Beside resting on a value judgment, the indifference curve analysis never asks and, thus, never answers the question it claims to answer. Using the protection market analogy, it proceeds as follows. First, the racket would increase the price of electricity. Second, it would allow the individual to adjust to this tax and then measure the resulting tax revenue. Third, the racket would say, "you can continue to pay x amount via the higher price (which requires buying the same amount forever) or pay x amount out of your income and we will lower the price of electricity to its original level." This is a much different situation for the victim. (Why would the racket or government create such a situation?) His selection of the income tax does not prove that he prefers an income tax to an excise tax of equal amount. It proves that he prefers lower prices to higher prices (as a buyer) and that he prefers more alternatives to choose from than fewer.

The indifference curve analysis does not take as given the amount of tax and then compare the two alternative tax types. It allows the individual to choose the amount of tax under the excise form and compares that solution to the income tax. Imposing other sequences shows why this specific sequence is used.

In figure 4, the individual begins with a budget constraint of M_OX_O. Optimum purchase occurs at point A with a utility level of U_O. If the government imposes an income tax, the original budget constraint shifts inward parallel to M_IX_I. The individual selects point B with a reduction of satisfaction from U_O to U_I. As a result, the government tax revenue equals M_OM_I.

Now the government offers the individual an excise tax designed to raise the same amount of tax revenue. How can they calculate this tax? If they assume the individual will purchase combination B with either tax, the excise tax budget constraint appears as M_OX_E. Yet, under these conditions, the individual will select combination C and increase utility from U_I to U_E. The resulting government revenue equals M_OM_E. The government may react to this loss in tax revenue by increasing the excise tax rate. But the effect on tax revenue depends on individual preferences which remain hidden from government. These preferences only reveal themselves in voluntary choice; thus, no basis exists for the government to make the calculation necessary to collect equal tax revenue (as long as it does not force the individual to buy a given amount). This parenthetical effect constitutes the real "extra" burden of the excise tax, as the problem is constructed. In other words, unless the government prevents any posttax freedom of choice with the excise tax, it cannot conduct the postulated experiment.

The government's problem intensifies if the two tax types are offered simultaneously. Referring to figure 4, such an offer would render a kinked budget constraint such as M_OBX_I. An individual with a strong preference for X would select an income tax. His purchase combination would lie on the segment BX_I, resulting in a smaller tax bill than the excise tax for any point

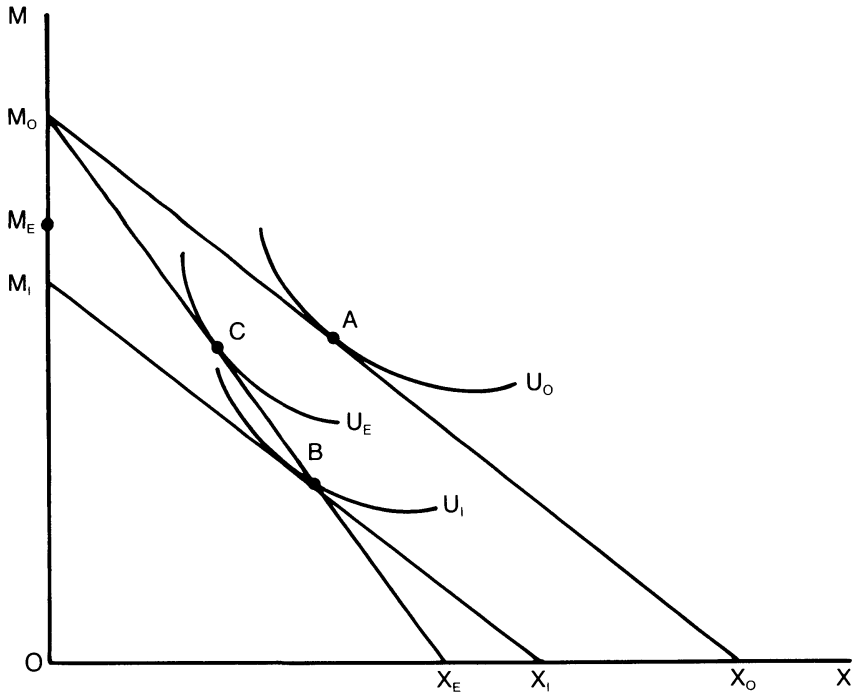

Figure 4

selected along the segment BX_E. An individual with a weak preference for X would select a point along M_OB involving less tax than any point selected along M_IB. Again, the government cannot equate tax revenues from the two types. In this case, it makes no sense to even propose such a constraint.

Only in one of three conceptual cases can the government enforce the equal–tax-revenue constraint (while allowing the individual freedom to choose quantities). The validity of the traditional proof as just rendered relies on the excise-tax–then–income-tax sequence. Yet, no justification is given for this sequence. Surely, it is not based on the observation that the government actually makes such offers. More likely, authors use this sequence because only it allows the government to conduct the postulated experiment. Yet, it does not answer the question posed by the analysis.

As just noted, the individual's preferences are unknown to the government. In addition, they may change during the analysis. For example, the individual may despise the income tax and, thus, prefer the excise tax. Allowing for such an unstable indifference map invalidates the results. Yet, a stable

indifference map reduces the individual to a robot reacting to input with an unchangeable programmed set of responses.

In addition to shifting preferences, the budget lines may shift during the analysis. For example, the individual may sell a product that competes with the good the government taxes. The excise tax would shift demand to his product, shifting his excise tax budget line outward. Such an individual may prefer an excise tax. The indifference curve analysis does not incorporate this important effect.

Finally, since the tax represents a burden to the individual, he will try to avoid paying. Thus, he may choose the excise tax, even if its initial burden is greater, in anticipation of easier avoidance in the future.

This burden has two forms: the loss of income and the distortion of resource use. The indifference curve analysis cannot measure the latter and, thus, is (even if valid) a wholly inadequate framework for this problem. As already demonstrated, the Austrian view is broad enough to incorporate both these effects.

Additional Effects

The major difference between an income tax and an excise tax is that the latter penalizes the production of certain goods.

> The excise tax . . . *in addition,* penalizes the particular industry backward to the factors working in the industry. Now, however, the tax exerts pressure on nonspecific factors and entrepreneurs to leave the taxed industry and enter other, non-taxed industries. *During the transition period,* the tax may well be added to cost. As the price, however, cannot be directly increased, the marginal firms in this industry will be driven out of business and will seek better opportunities elsewhere. The exodus of nonspecific factors, and perhaps firms, from the taxed industry *reduces the stock of the good that will be produced.* This reduction in stock, or supply, will raise the market price of the good, given the consumers' demand schedule.[12]

The major additional harm done by the excise tax relative to the income tax is the further distortion in the use of resources to satisfy consumers. The price increase (which traditional analysis focuses on as a substitution effect) is just a by-product of this distortion. Taking the Austrian view,

> Everyone in the market suffers as a result of an excise tax. Nonspecific factors must shift to fields of lower income; since the discounted marginal value product is lower there, specific factors are hit particularly hard, and consumers suffer as the allocation of factors and price structure are distorted in comparison with what would have satisfied their desires.

> In addition to these specific effects, the excise tax also has the same general effect as *all other taxes, viz.*, that the pattern of market demands is distorted from private to government or government-subsidized wants by the amount of the tax intake.[13]

Turning to the income tax, the Austrian method analyzes not only the decline in real income included in the traditional analysis, but five other effects.

First, the income tax makes work more expensive relative to leisure, tending to induce less work. Counterbalancing this effect is the increased marginal utility of money due to having less income. This effect may induce a person to work harder. In either case, the individual's living standard declines in the form of either less leisure or less income.

Second, an income tax penalizes work for money relative to work for a return in kind. This tends to reduce specialization and break down the market, resulting in lower living standards.

Third, the income tax will raise the individual's time preference, leading to an increase in consumption relative to saving. This will leave fewer funds for capital formation and, thus, lower future living standards.

Fourth, the income tax reduces saving and investment in another way. Even though some of the funds raised by taxation would have been saved, expenditure by government officials is all consumption. All funds saved by so-called transfer-payment recipients represent malinvested funds. If the transfer is discontinued, this saving/investment of nonproducing individuals will be replaced by saving/investment of producing individuals.

Fifth, the income tax taxes the interest payment on savings and, thus, lowers the net interest rate. This induces less saving and investment in marginal investments.

Conclusion

Indifference curve analysis contains several methodological errors. These are sufficient to render its applicability severely limited at best and probably nil in utility analysis. This status should not change unless authors demonstrate the truth of its implicit assumptions. Until then, any conclusions drawn from applying indifference curve analysis should be given the same useless status.

In addition, many errors are committed in the application to selecting an optimal tax type, the foremost being the prior value judgment in favor of the government's claim to an individual's wealth. Perhaps it is time for mainstream economists to reevaluate their methodology.

Notes

1. For further elaboration of this method in economics, see L. Mises, *The Ultimate Foundation of Economic Science* (Kansas City, Kans.: Sheed Andrews and McMeel, 1976) or M. Rothbard, "Praxeology: the Methodology of Austrian Economics," in *The Foundations of Modern Austrian Economics,* ed. E. Dolan (Kansas City, Kans.: Sheed and Ward, 1976).

2. For excellent examples of economic science from this method, see L. Mises, *Human Action: A Treatise on Economics* (New Haven: Yale University Press, 1949) or M. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles* (Los Angeles: Nash, 1970).

3. M. Rothbard, "Praxeology: The Methodology of Austrian Economics," in *The Foundations of Modern Austrian Economics,* ed. E. Dolan (Kansas City, Kans.: Sheed and Ward, 1976), pp. 20–21.

4. M. Rothbard, *For a New Liberty* (New York: Macmillan, 1978), pp. 23–44.

5. For a comparison of the effects of a market and hegemony, see M. Rothbard, *Power and Market: Government and the Economy* (Kansas City, Kans.: Sheed Andrews and McMeel, 1977) pp. 262–66.

6. Ibid., p. 261.

7. For examples of this analysis, see any intermediate microeconomic textbook, such as J. Hirshleifer, *Price Theory and Applications,* 3rd ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1984), pp. 56–81; or E. Browning and J. Browning, *Microeconomic Theory and Applications* (Boston: Little, Brown, 1983), pp. 27–62.

8. The original version of the proof appears in M.F. Joseph, "The Excess Burden of Indirect Taxation," *Review of Economic Studies,* Vol. 6 (June 1939), pp. 226–31. Subsequent versions occur in J.R. Hicks, *Value and Capital* (London: Oxford, 1939), pp. 41–45; G.J. Stigler, *Theory of Price* (New York: Macmillan, 1946), pp. 81–82; E.D. Allen and O.H. Brownlee, *Economics of Public Finance* (New York: Prentice-Hall, 1974), pp. 343–45; M.W. Reder, "Welfare Economics and Rationing," *Quarterly Journal of Economics,* Vol. 59 (August 1945), pp. 577–97; A. Henderson, "The Case for Indirect Taxation," *Economic Journal,* Vol. 58 (December 1948), pp. 538–53; K.E. Boulding, *Economic Analysis,* 2nd ed., (New York: Harper & Row, 1984); and E. Schwartz and D.A. Moore, "The Disturbing Effects of Direct Taxation: A Re-evaluation," *American Economic Review,* Vol. 41 (March 1951), pp. 139–48. More recent versions include: E. Browning and J. Browning, *Microeconomic Theory and Applications* (Boston: Little, Brown, 1983), pp. 104–05; L. Truitt and D. Truitt, *Intermediate Microeconomics* (New York: West, 1984), pp. 76–77; D. Watson, *Price Theory and Its Uses,* 3rd ed. (Boston: Houghton Mifflin, 1972), pp. 109–111; D. Kamerschen and L. Valentine, *Intermediate Microeconomic Theory,* 2nd ed. (Cincinnati: South-Western, 1981), pp. 141–43; H. Kohler, *Intermediate Microeconomics* (Glenview, Ill.: Scott Foresman, 1982), pp. 64–66.

9. For a more complete critique, see M. Rothbard, "Toward a Reconstruction of Utility and Welfare Economics," in *Center for Libertarian Studies: Occasional Papers Series* 3 (New York: Center for Libertarian Studies, 1977), pp. 9–15.

10. For examples of this construction see the last five entries of note 8.

11. When the government offers the good at a zero (or very low) price, it creates free riders—those who are not excluded based on their lack of willingness to pay. In turn, when the government raises tax funds to gain the revenue to provide the service, it creates forced riders—those who pay taxes in excess of the benefit they receive from the service.

12. M. Rothbard, *Power and Market,* p. 93 (emphasis added).

13. Ibid., pp. 93–94 (emphasis added).

The Neglect of the French Liberal School in Anglo-American Economics: A Critique of Received Explanations

Joseph T. Salerno

For roughly the first three quarters of the nineteenth century, the "liberal school" thoroughly dominated economic thinking and teaching in France.[1] Adherents of the school were also to be found in the United States and Italy, and liberal doctrines exercised a profound influence on prominent German and British economists. Although its numbers and authority began to dwindle after the 1870s, the school remained active and influential in France well into the 1920s. Even after World War II, there were a few noteworthy French economists who could be considered intellectual descendants of the liberal tradition.

Despite its great longevity and wide-ranging influence, the scientific contributions of the liberal school and their impact on the development of European and U.S. economic thought—particularly on those economists who are today recognized as the forerunners, founders, and early exponents of marginalist economics—have been belittled or simply ignored by most twentieth-century Anglo-American economists and historians of thought.

A number of doctrinal scholars, including Joseph Schumpeter, have noted and attempted to explain the curious neglect of the school in the English-language literature. In citing the school's "analytical sterility" or "indifference to pure theory" as a main cause of its neglect, however, their explanations have overlooked a salient fact: that many prominent contributors to economic analysis throughout the nineteenth and early twentieth centuries expressed strong appreciation of or weighty intellectual debts to the purely theoretical contributions of the liberal school.

In this article, I present evidence demonstrating that economists as diverse in analytical approach and ideological preference as Eugen von Bohm-Bawerk, Vilfredo Pareto, Francesco Ferrara, Gustav Cassel, and Othmar Spann found scientific merit in the works of various liberal economists. In addition, I suggest that the Turgot-Say subjective value tradition, as embodied and extended in the works of later French liberal economists, was the primary scientific inspiration for two important movements in the evolution of nineteenth-century Anglo-American economics.

One such movement involved British Commonwealth economists writing in opposition to the declining but entrenched Ricardo-Mill orthodoxy in the 1850s and 1860s. Their explicit and thorough grounding in subjectivist liberal economics led them to construct alternative theoretical organons which comprised significant marginalist insights. This movement culminated in the publication of William Stanley Jevons' momentous work (Jevons [1871] 1970).

The second movement, which was heavily indebted to the French liberal Frederic Bastiat, emerged in the post–Civil War United States and involved a thoroughgoing attempt to recast economics as a pure science of exchanges or catallactics whose foundations lie in the subjective data of human wants. American catallactic economists also perfected a tradition of analysis of money, banking, and macroeconomic fluctuations that was traceable to earlier French liberal economists, especially Count Destutt de Tracy. Significant elements of the United States catallactic tradition were embodied in the work of Francis A. Walker, one of the first American economic theorists to achieve worldwide recognition.

In the second section of this article, I adduce significant evidence of the neglect of the French liberal school in the Anglo-American doctrinal literature. The third section surveys the explanations of this oversight proposed by earlier writers and suggests that these explanations fail to come to terms with the extensive influence of liberal economics on the evolution of general economic theory in the latter half of the nineteenth century. Detailed exploration of some of the channels of this influence is undertaken in the next section. The article concludes with a brief suggestion of the direction in which an alternative resolution of the issue must be sought.

Evidence of Neglect

The leaders of the later British classical school dismissed their French contemporaries as, at best, epigones of Adam Smith and David Ricardo. As Marian Bowley ([1937] 1967, 85) points out, compared to Ricardo's abstract analysis, "Say's work necessarily appeared superficial and to have been directed solely to the elucidation of what Ricardians considered the simple problems of market value."

For example, the arch-Ricardian J.R. McCulloch ([1864] 1965, 13–14) charged that "almost all continental economists," in following Say's utility approach to value and price theory, "stumble at the very threshold of the science" and "have yet to make themselves acquainted with its merest elements."

In the view of J.E. Cairnes ([1873] 1965, 232), "every great step in the progress of economic science (I do not think an important exception can be

named) has been won by English thinkers." With respect to the French liberal school, Cairnes wrote that "the most characteristic doctrines of the English school of Political Economy . . . found some of their most powerful champions and most skilful [sic] expositors on the other side of the Channel." Cairnes proceeded to characterize a number of leading liberal economists, including J.-B. Say, Joseph Garnier, J.G. Courcelle-Seneuil, and A.E. Cherbuliez, as "the interpreters to their countrymen of Adam Smith and Malthus, Ricardo and Mill" ([1873] 1965, 313).

Not only did Cairnes portray liberal economists as little more than popularizers of classical doctrines, he also questioned their scientific methods. Regarding Say, he argued that "his reasoning on economic problems is throughout carried on with a side glance at the prevalent socialistic doctrines" (Cairnes [1888] 1965, 30). In particular, Cairnes ([1888] 1965, 31) questioned the *Wertfreiheit* of Say's protomarginal productivity theory of factor pricing, which conceived the various income shares as dependent on "the utility of the functions which land, capital, and labor respectively perform in the creation of the ultimate product." According to Cairnes ([1888] 1965, 31), in this theory, "economic laws . . . are confounded, in order to introduce a *moral* argument in defense of the existing structure of society."[2] In general, Cairnes found "characteristic of the French school . . . a tendency to vicious generalization . . . which, instead of elucidating, darkens the problems."[3]

The attitude of the British classical economists, typified by the statements of McCulloch and Cairnes, that the liberal school contributed nothing that was both original and worthwhile to scientific economics carried over to mainstream Anglo-American economics in the neoclassical era. As T.W. Hutchison (1973, 177) has noted:

> The history of economic thought in the first half or three-quarters of the nineteenth century was and still is portrayed in very Anglo-centric terms, as though the theories which achieved for so long in Britain such an extraordinary dominance and authority . . . enjoyed a similar hold and authority elsewhere in Europe.

This is most clearly evidenced in the fact that standard Anglo-American histories of economic thought typically include treatments of one or two isolated French economists, usually Say and Bastiat, as examples of classical thought on the Continent. Those authors who do identify a specifically French tradition in economics still end up conflating the liberal and classical schools.

For example, Lewis Haney (1949, 847) duly recognizes that "the French school of Liberalists has never been quite identical with the English in its thought." However, Haney (1949, 856) does not acknowledge any substantive doctrinal differences between the two schools and ultimately judges the "Liberalists" to be the "French representatives of the Classical School."

Eric Roll (1953, 319–21) points out that Say's work is firmly rooted in the utility approach to value theory initiated by eighteenth-century Italo-French writers such as the Abbé Condillac. In view of his development and refinement of this approach, Roll (1953, 323) regards Say "as one of the chief founders of the formalist, equilibrium analysis which is the essence of present-day value theory." He also notes that Say "had an almost immediate influence in setting up a tradition. No important French economist after him returned to the Ricardian theory of value" (Roll 1953, 323). And yet, in the same work (318–19), Say is characterized as "an immediate and most faithful disciple of Smith," who gave a peculiar "twist" to the master's doctrines. With the exception of a deprecatory reference to the "optimism" and "providential harmony" characterizing Bastiat's work, Roll (1953, 302) does not discuss Say's French successors in the subjective-value tradition.

The liberal school fares no better in more recent works on economic thought. Two illustrations will suffice.

In his text on economic thought, Henry William Spiegel (1983, 257–60) disposes of Say's contributions in a few pages at the end of a chapter entitled "The Details of Smith's System and Its Reorganization by Say." For Spiegel (1983, 258), Say's *Traité* was not a scientific contribution in its own right, but "the foremost instrument of propagating Smith's thought in the early nineteenth century." Spiegel attributes the great success of Say's book on this level to the fact that "French writers have the great gift of orderly and coherent exposition, which displays logic and consistence in a manner especially suited for purposes of instruction." Finally, Say's position in the subjective-value tradition is given short shrift by Spiegel (1983, 259), who contends that Say was "a forerunner more of the thought than of the full-fledged theory [of subjective value], of which their were earlier pioneers in French economic thought." Following up on this view, Spiegel (1983, 340) summarily dismisses Say's successors in the liberal school with the comment that "classical economics found a persuasive apologist in Bastiat, but there was little scientific work that would have continued the tradition of Say."

Similarly, D.P. O'Brien, in his survey of the classical economists, does not recognize a unique French tradition in economics that extended beyond Say. Thus he writes: "Say it is true was followed by Destutt de Tracey [sic] but the latter was a minor writer and Say's influence was on the whole limited at least in respect of his value theory. Only in Dublin, at Trinity College, was there a continuing tradition of subjective value theory" (O'Brien 1975, 106).

O'Brien's statement epitomizes the almost total ignorance of nineteenth-century French economics that characterizes modern English-speaking economists and even historians of thought. In fact, as I shall argue below, for over one century following the publication of Say's *Traité,* the keystone of French theoretical economics was precisely the subjective theory of value as it was formulated by Say.

Previous Attempts at Explanation

Since World War II, there have been a number of attempts by doctrinal scholars conversant with the development of Continental economics to explain and rectify the lack of recognition accorded the French liberal school in the Anglo-American literature. In his monumental *History of Economic Analysis,* Joseph Schumpeter (1954, 491) challenged the long-entrenched British classical view of Say as one "who had been able to rise to Smithian, but had failed to rise to Ricardian, wisdom." Schumpeter (1954, 492) countered with the insight that Say's work "grew purely from French sources" and represented a development of the great "Cantillon-Turgot tradition" which reached back to the Scholastics. More importantly, Schumpeter (1954, 497) called attention to Say's successors "in spirit and in doctrine" as a self-conscious school of thought which, dating from the appearance of the *Traité,* "boasts of a history of about a century."

Additionally, Schumpeter suggested a number of factors that tended to militate against due recognition of the liberal school. First, Say's facility for clear and concise expression or "superficiality of exposition" is easily confused—and was so confused by the Ricardians—with "superficiality of thought." Ironically, it was the very success of Say's *Traité* that "confirmed contemporaneous and later critics in their diagnosis that he was just a popularizer of A. Smith" (Schumpeter 1954, 491). Second, Say's later followers, in reaction to a strong socialist presence in France prior to 1848, were vociferous in their support of laissez-faire and anti-étatiste doctrines and policies, and, according to Schumpeter (1954, 497), "this naturally accounts for the hostility of modern critics [to Say]. Finally, as a result of their almost exclusive focus on economic policy, French liberal economists "lacked interest in purely scientific questions and were in consequence almost wholly sterile as regards analytic achievement" (Schumpeter 1954, 497).

Seven years prior to the publication of Schumpeter's work, Maurice Lamontagne (1947) published a neglected though important article on French contributions to economic theory in which he anticipates some of the main points made by Schumpeter.[4] In this article, Lamontagne (516–17) notes that Say drew his inspiration, especially in value and price theory, from eighteenth-century Italian and French subjective-value theorists such as Galiani, Turgot, and Condillac. By virtue of their adherence to a utility-based explanation of value and price, liberal economists following Say constituted a self-conscious school of thought, one distinct from the British classical school. According to Lamontagne, "the psychological aspect of value, so clearly indicated in Condillac's work, has never disappeared from the French economic literature. Even Say and his immediate disciples followed the tradition; for that reason they never identified themselves with English Classicism" (522).

Lamontagne demonstrates, moreover, that Say's influence on French eco-

nomics persisted well into the twentieth century. He concludes that "Say is probably the economist who exerted the greatest influence in France; we have to go back to him if we want to give a full explanation of the trend which economic theory has followed in that country. He set up a tradition which is still strong, even in present-day literature" (LaMontagne 1947, 523).

Finally, like Schumpeter, Lamontagne (1947, 528) attributes the modern neglect of the liberal school to its lack of innovation in pure theory dating from the time of Walras.[5] Unlike Schumpeter, however, he ascribes the alleged theoretical sterility of the school to Say's methodological aversion to "the use of formal mathematics" (LaMontagne 1947, 523). He argues further that Say's strictures against the use of mathematics in economics also account for the failure of the Lausanne school and of marginal utility theory to have taken root in France.

In his recent treatise on economic thought, the late Karl Pribram (1983, 191), a European-trained economist, has emphasized the "fairly general indifference of the French nineteenth-century economists to problems of economic theory." He does not believe that this fact can be fully explained by the liberal economists' overriding concern to refute the claims of socialism or by a narrow institutional focus absorbed from the Physiocratic tradition. Rather, Pribram (1983, 191) argues along the lines of Lamontagne that strict adherence to methodological precepts originally laid down by Say "prevented the elaboration of concepts of higher abstraction and the development of procedures of refined hypothetical reasoning."

According to Pribram (1983, 190), Say's position was a reaction against Ricardian economic theorizing that "started from abstract principles which were not perfectly founded in the facts." Say "insisted on the use of Baconian methods of observation as exclusive instruments of economic analysis." Thus, for Say, the task of political economy was to establish "connections among observed facts."[6]

Peter Groenewegen has recently reaffirmed and elaborated Turgot's influence on Say and the liberal school. Groenewegen (1983, 599–605) demonstrates that it is precisely in those areas in which Turgot's influence on Say and French economics is strongest (namely, value and interest theory and economic policy) that the differences between the British classical and French liberal schools are greatest. Even the characteristic French liberal welfare doctrine of "the existence of social harmony under conditions of free trade" is shown to be foreshadowed in Turgot's writings (Groenewegen 1983, 603). In general, the liberal economists considered Turgot "a hero and great precursor of their views" (Groenewegen 1983, 602).

Groenewegen (1983, 605) also argues that the neglect that Turgot's economics has suffered in the twentieth century is largely due to the fact that "his uncompromising position of economic liberalism was seized upon and fully exploited by the French school and carried to extremes." Nor did it help

matters that the liberal school, as the bearer of Turgot's influence in theoretical economics, "was not strong in economic analysis" (Groenewegen 1983, 603).

In sum, doctrinal experts have cited three factors as contributing to the neglect of Say and the French liberal school by English-speaking economists. First, there is the tendency to perceive Say as a superficial expositor of Smithian doctrines, due to the unusual clarity of his style. Second, the tenacity with which Say and the liberal school opposed socialism and government intervention in the economy has provoked the view, especially among modern critics, that liberal economists in general were little more than polemicists and apologists for ultra–laissez faire liberalism. Finally, there is the apparent unwillingness or inability of the school to initiate or absorb innovations in economic theory, especially after the advent of the marginalist revolution.

The problem with ascribing the lack of recognition received by the liberal school wholly to these three factors is that it fails to explain a salient fact: that many prominent nineteenth- and early twentieth-century economists throughout Europe and in the United States expressed a strong appreciation of the purely theoretical contributions of the school. The following section provides a survey of the attitudes of leading Continental economists toward the liberal school and an appraisal of the influence of liberal economic theory on prominent British and American economists who rejected the Ricardian-classical orthodoxy.

The Liberal School's Influence on the Development of Economic Theory

A Survey of Continental Economists

Leading Continental economists were quite cognizant of the French liberal school and its scientific contributions. This is illustrated by numerous references to individual liberal economists in the scientific works of a doctrinally diverse group of Continental authors.

The Swede Gustav Cassel (1903, 25) credits Say with "having introduced the conception of pure interest into the science" and with having "separated the functions of the capitalist from those of the '*entrepreneur*,' capital from business ability, and interest from the reward for such ability." Cassel (1903, 25) also expresses appreciation for Say's "very complete and profound analysis of the mechanism of the market." With this analysis, Say has "provided the general scheme into which every explanation of particular points or sides of [the interest] problem must be fitted as parts of an organic whole."

In Cassel's eyes, however, Say's explication of the market mechanism has implications for economic science far beyond the narrow confines of interest

theory. According to Cassel (1903, 27), "greatest honour" is due Say for having "for the first time, stated *the mutual dependence of demand, price, and cost of production.*" Compared to what Cassel conceives as Say's mutual interdependence analysis of market processes, the account of the market mechanism provided much later by the Austrian school is, according to Cassel (1903, 26 n. 1), "much inferior."

Cassel (1903, 39–40, 62) also notes certain "valuable remarks" of Frederic Bastiat on the conception of the lender's function and points to Bastiat as an earlier writer who formulated the idea of time preference "in very much the same words as those used by Bohm-Bawerk."

Finally, Cassel (1932, 310) attributes to Paul Leroy-Beaulieu, as well as to the American Francis A. Walker, the seminal development of a theory of wages which "sees in the productivity of labour the essential determinant of wages" and which, therefore, foreshadows the marginal productivity theory of factor pricing.

Although he is emphatically out of sympathy with their approach, Knut Wicksell ([1934] 1977, 4–5, 27–28) gives recognition to the "harmony economists," including Bastiat, and "their numerous disciples in different countries." In particular, Wicksell ([1934] 1977, 146) identifies Bastiat's and J.R. McCulloch's conception of the nature of interest as representative of the pre–Bohm-Bawerkian view.

In his monumental *History and Critique of Interest Theories,* Bohm-Bawerk (1959) singles out the interest theories of a number of liberal economists for careful and extended scrutiny. These include Say, Pellegrino Rossi, Bastiat, and Courcelle-Seneuil.

Despite his strong criticisms of Say, Bohm-Bawerk acknowledges the great influence of the latter on the development of nineteenth-century interest theory. Bohm-Bawerk (1959, 80) writes that "despite the obscurity of his views, Say occupies a preeminent position in the history of the theories of interest. He constitutes a sort of junction point at which two of the most important theoretical branches of economic science begin their respective courses."

Although he undertakes a scathing refutation of Bastiat's interest theory, Bohm-Bawerk (1959, 191) is constrained to admit that the theory "created a great sensation in his [i.e., Bastiat's] day . . . and has exerted considerable influence right down to the present" (1884).

In general, however, Bohm-Bawerk appreciates the scientific merit of the endeavors of liberal economists in this field of economics. For example, he refers to Cherbuliez as one of "the more prominent among the economists" who adhered to Senior's abstinence theory of interest (Bohm-Bawerk 1959, 190). Maurice Block is cited as an "outstanding scholar" and "the learned and brilliant author" who penned "richly charged discussions of our theme" (Bohm-Bawerk 1959, 426). Leroy-Beaulieu's work on distribution theory is

hailed as "the most highly respected monograph to appear in France on the distribution of wealth" (Bohm-Bawerk 1959, 88). And Rossi is chosen by Bohm-Bawerk (1959, 323) to represent the many economists who offered eclectic combinations of the productivity and abstinence theories of interest, partly because Rossi's "version of the productivity theory has some marks of originality."

The French liberal school had a profound effect on the course of development of Italian economic thought in the nineteenth and early twentieth centuries.

Francesco Ferrara[7] is generally recognized as the key figure in the revival of scientific economics in Italy in the late nineteenth century.[8] He was an unabashed admirer of the liberal economists and adopted most of their theoretical as well as political doctrines. Indeed, Ferrara's views so closely parallel those of the liberal school that modern doctrinal scholars consider him virtually a member of the school. Thus Schumpeter (1954, 513) refers to Ferrara as an "ultra-liberal," and Haney (1949, 833) describes his views on economic method, theory, and policy as similar to "those of Bastiat and the French optimistic school."[9]

As a proponent of liberal economics, Ferrara considered Say to be the most eminent successor of Adam Smith (Weinberger 1940, 95–96); he also held in high esteem French liberal economists Charles Dunoyer and Michel Chevalier (Cossa 1893, 494). At the same time, Ferrara considered Ricardo's importance to be "overrated," especially in relation to his theory of value (Weinberger 1940, 96), and he belittled the merits of Mill's work (Cossa 1893, 494). Seen in this light, it is clear that Ferrara's innovative "cost-of-reproduction" theory of value, with which he attempted to unify the whole of economic theory, was not intended as a mere improvement on the Ricardian-classical labor theory of value but as the definitive answer to it from the liberal-subjectivist perspective.

As Piero Barucci (1973, 260) argues in his important article on the dissemination of marginalism in Italy, Ferrara's value theory:

> Was meant to be a critical reply to Ricardo's labor theory of value, in which Ferrara did not see any element of subjectiveness. With his reproduction cost he intended to work out a theory of value which took into account both the element of cost and that of utility of goods. The value of a good would be, in this way, the comparison between the utility attributed by a subject to the good itself and the cost he thinks he would have to incur to reproduce the good. Indeed, this theory emphasized the fact of the utility of goods.[10]

Ferrara founded a school that dominated economic thought in Italy from the 1850s to the early 1870s.[11] Like Ferrara, the members of his school "belauded Carey and Bastiat, considered Ricardo and Stuart Mill as dangerous

and sophistical theorists and abhorred the German economists" as advocates of socialism and interventionism (Loria 1900, 116).

The historicist and Ricardian reaction of the 1870s in Italy overwhelmed Ferrara and his immediate followers, but it did not end the liberal school's influence on Italian economics.[12] In fact, Ferrara's subjectivist and proto-Austrian theory of value and distribution had prepared the ground for what Barucci (1973, 264) refers to as "the army of marginalist-liberalists"[13] that coalesced in Italy in the years 1886–90, mainly under the influence of the Austrian school.[14] By 1890, the doctrine of marginal utility was well entrenched in Italy and "the work which Ferrara had patiently prepared was complete at last" (Barucci 1973, 264).[15]

Among the later Italian marginalists who revolutionized public finance theory, Vilfredo Pareto and Giovanni Montemartini owed a substantial intellectual debt to the French liberal economist Gustave de Molinari. In anticipating modern public-choice theory, Pareto and Montemartini drew heavily upon Molinari's path-breaking socioeconomic analysis of the state.

Specifically, Pareto (1966, 18, 108–11) employed Molinari's concept of "tutelage" in developing his own theory of aristocracy.[16] Pareto (1966, 136–37) also integrated his famous theory of the circulation of elites with Molinari's concept of the "silent revolution."[17] At the conclusion of a discussion in his *Manual* of how public office and the taxing process are sought after as means enabling one class to despoil other classes in society, Pareto (1971, 347 n. 8) directs the reader to "the numerous works of G. de Molinari." Finally, we are informed by S.E. Finer (Pareto 1966, 18) that Molinari was "a man whom [Pareto] admired till his dying day."

In his classic protopublic choice analysis of the state as a profit-seeking "public enterprise," Montemartini employs key elements of Molinari's thought. Montemartini ([1900] 1958, 142–43) accepts Molinari's characterization of war as political competition among public enterprises designed to gain and secure income for its proprietors (politicians and bureaucrats) by enabling them to extend their hegemony and taxing power over the populations of rival states.[18] Montemartini ([1900] 1958, 141–42) also affirms Molinari's point that "the suppression of all political enterprise . . . would imply a reduction of costs for the community, because the political enterprise is always a costly form of enterprise, and also because it does not allow free play to private initiative." Barring the economically optimal solution of total abolition of the state, Montemartini ([1900] 1958, 142), following Molinari, expects a reduction in costs as the rights of secession and of formation of competing public enterprises become more widespread.[19]

German economists have always recognized the formative influence of Say and the liberal school on the evolution of theoretical economics in Germany.

Melchior Palyi (1928, 213), in his classic discussion of the introduction

of Smithian ideas on the Continent, contends that "it was the Smith-Say combination rather than Adam Smith alone which, for the following generation in Germany, as all over the Continent, served as the basis for economic thought." On the other hand, "for the German economists, disregarding Thunen, Ricardo remained for at least another fifty years the originator of some rather curious *weltfremd* exaggerations and never became really influential" (Palyi 1928, 191).

Palyi (1928, 214–15) notes that, particularly in the area of value theory, "a strong tradition of theoretical analysis prevailed . . . mostly in the sense of the Smith-Say type of approach." This tradition produced a line of price theorists who formulated supply-and-demand analysis "with an additional emphasis on the subjective factor" and " with closer approach than in the works of the classical writers to modern price-equilibrium concepts." The tradition culminated in the work of F.B.W. Hermann who, starting from basic concepts formulated by Say, developed an approach to price theory "emphasizing consumers' desires and incomes," which came to serve later "as the starting-point of Menger's utility analysis."

In the case of one German theorist who attempted to develop a labor theory of value, which contradicted his earlier subjectivist approach, Palyi (1928, 214) points out that the author was "influenced, as most of the early labor-value theorists on the Continent were, probably more by [the liberal economist] Destutt de Tracy than by Ricardo." Palyi (1928, 209) also recognizes the tremendous influence of Bastiat, whose *Harmonies Économique* "hammered the doctrine of laissez faire and of the natural division of labor into the capitalist minds of the whole Continent."

Hayek (1952, 529) argues that "classical doctrines never really established themselves in Germany" because due "partly to the influence of Condillac and other French and Italian authors of the eighteenth century a tradition had been kept alive which refused to separate value entirely from utility." The writers in this tradition, "of whom Hermann was probably the outstanding and most influential figure . . . tried to combine the ideas of utility and scarcity into an explanation of value, often coming very near to the solution provided by Menger."

Schumpeter (1954, 600) also notes the "utility-theory tradition" that developed in Germany, "perhaps in part under French influence." Hermann is named by Schumpeter (1954, 644) as one who attacked the British classical wage-fund theory, on the basis of Say's insight that "production and distribution reduce to an exchange of services."

Bohm-Bawerk (1959, 124) has called attention to the fact that the use theory of interest, after its original suggestion by Say, had been worked out "entirely by German economists." In particular, it was Hermann who, prior to Menger's perfected formulation of the theory, "put the theory on a firm foundation."

The influence of the French liberal school in Germany is also recognized by the rabidly anticlassical founder of German "universalist" economics, Othmar Spann. In his history of economics, Spann (1930, 108) refers to Say as "the godfather of Adam Smith's doctrines on the Continent" and declares that it was Say's "brilliancy" in systematizing and propounding the ideas of Smith that played a "notable part in their diffusion." Spann (1930, 109) also points out that the long series of "German Smithians," whose "most notable member" was Hermann, rejected Smith's labor theory of value and, following Say, "tried to explain value as arising out of utility." The textbook by K.H. Rau, an early member of this German "use-value" school, "dominated German economic thought for half a century, and had an influence in foreign countries as well" (Spann 1930, 109).

Spann (1930, 209) also remarks on the fact that "Bastiat's teaching . . . exerted much political influence in Germany as well as France," and supplied the theoretical underpinning of the German Manchester school.

In his discussion of contemporary developments in pure theory, Spann (1930, 307) is led to sharply distinguish between German "universalist theory" and "the individualist Anglo-French doctrine." He (Spann 1930, 308) recommends Leroy-Beaulieu's four-volume treatise on liberal economic theory and policy (Leroy-Beaulieu 1910), along with Marshall's *Principles of Economics* and J.B. Clark's *The Distribution of Wealth,* as important textbooks of "individualist classical economics."

The British Anticlassical Movement

The liberal school had an important and substantive influence on a number of eminent representatives of the anticlassical movement that had begun to flourish in Britain during the two decades between the appearance of J.S. Mill's *Principles* and the marginalist revolution. This heterdox group of anti-Ricardians included among its number not only historicists, but also writers whose roots lay in the subjective-value tradition, such as Henry Dunning MacLeod, William E. Hearn, and, of course, Jevons.[20]

The weightiest challenge to the prevailing classical attitude toward the French liberal school was issued by Jevons. In his eagerness to work his way free from the hidebound Ricardian orthodoxy, Jevons looked to Continental, and especially French, economic thought for inspiration and guidance. Thus, in the concluding paragraph of his seminal marginalist work, Jevons ([1871] 1970, 261) expressed appreciation for "a long series of French economists from Baudeau and Le Trosne down to Bastiat and Courcelle-Seneuil." These economists, he argued, had been unduly neglected, "because the excellence of their works was not comprehended by David Ricardo, the two Mills, Professor Fawcett and others who have made the orthodox Ricardian school what it is."

Two years later, in a review of Cairnes' *Essays in Political Economy,* Jevons strongly defended Bastiat against Cairnes' criticisms and upheld the scientific merit of the former's work. In a telling passage, Jevons (1873, 6) lauded Bastiat for, in effect, standing J.S. Mill on his head:

> While Mr. Mill has most erroneously denied that consumption of wealth is a branch of political economy, Bastiat logically commenced with human wants and made the consequent demand and consumption of commodities the natural basis of the science of human wealth. It is probable that when the true logical order of treatment of the science comes to be carefully reconsidered, the order adopted by Mr. Mill will be rejected, and that of Bastiat more nearly followed.

In a lengthy preface to the second edition of his *Theory of Political Economy,* Jevons took pains to identify his predecessors in the mathematical and the subjectivist approaches to economics. At one point, he dismisses the classical doctrine of the wage fund and contends that "the true doctrine may be more or less clearly traced through the writings of a succession of great French economists," including members of the liberal school such as Say, Destutt de Tracy, Bastiat, and Courcelle-Seneuil (Jevons [1871] 1970, 67). Jevons ([1871] 1970, 67) is thus led to conclude that:

> The only hope of attaining a true system of economics is to fling aside, once and for ever, the mazy and preposterous assumptions of the Ricardian school. Our English economists have been living in a fool's paradise. The truth is with the French school, and the sooner we recognize the fact, the better it will be for all the world.

Finally, in surviving fragments of what was intended to be a comprehensive treatise on economic theory, Jevons (1905, 6) grounds economic science on utility, which he declares to be "plainly the subject matter of economics from beginning to end" and "the alpha and omega of the science." In adopting this approach, Jevons (1905, 7) is explicitly following the French economists, "who, almost from the birth of political economy, have placed a chapter on 'Besoins' [wants] at the beginning of their treatises." In sharp contrast, "with few exceptions, English economists have entirely omitted to notice the groundwork of their own science" (Jevons 1905, 7).

Most importantly, there is clear indication in this work that Jevons (1905, 4–5) has come to perceive the marginal concept itself as a means to amend and complete Say and the liberal school's utility approach to the explanation of price formation.[21] In the same vein, Cairnes ([1874] 1967, 17) criticizes Jevons' value theory as no more than an ingenious attempt to revive Say's theory, allegedly already refuted by Ricardo.

Another important anticlassical writer who owed a substantial intellec-

tual debt to the liberal school was William E. Hearn, an Australian economist, historian, and legal theorist of Irish descent.[22] A contemporary of Jevons, Hearn's major work on economics, *Plutology* (Hearn 1864), was published in Australia in 1863 and was first issued in London a year later (Copland 1935, 19; La Nauze 1949, 96). Although the book received almost no critical notice when it first appeared, it later found use as a university textbook in Great Britain (Copland 1935, 19).

The work eventually garnered high praise from a number of prominent economists, including Jevons, Marshall, Edgeworth, F.A. Walker, Sidgwick, and Ingram (La Nauze 1949, 49–52; Copland 1935, 18–19). Of modern economists, Hayek (La Nauze 1949, 52) has referred to Hearn as a "great economist . . . who had a singular gift for stating original and penetrating observations in the most apt and lucid language."

Jevons recognized Hearn as a kindred spirit in the struggle against the Ricardian orthodoxy. Having favorably cited *Plutology* a number of times in the main body of his *Theory of Political Economy,* Jevons devotes a section of the concluding chapter to "Professor Hearn's Views." In this section, Jevons ([1871] 1970, 258–59) declares: "I have the more pleasure and confidence in putting forward these somewhat heretical views concerning the general problem of economics, inasmuch as they are nearly identical with those arrived at by Professor Hearn. . . . It would be a somewhat long task to trace out exactly the coincidence of opinions between us."

Regarding this "coincidence of opinions" between Hearn and Jevons, Schumpeter (1954, 826 n. 2) acknowledges that Hearn's work "in parts does read curiously Jevonian," especially in light of the fact that the work contains a clear statement of the concept of diminishing marginal utility. However, Schumpeter hastens to defend "Jevons' independence as regards the utility aspect."[23]

Turning to the issue of the doctrinal roots of Hearn's economics, the very title of his treatise suggests a strong French influence. As Hearn (1864, 7) notes in explanation, *plutology* is borrowed from the prominent liberal economist Courcelle-Seneuil, who adopted the term to designate the "pure science" of economic theory[24] and distinguish it from the "art" of economic policy, to which he applied the term *ergonomy.*

An examination of the substance of Hearn's treatise further reveals a profound doctrinal and expositional affinity with the liberal school. Like most French economists after Bastiat, Hearn commences with a chapter on human wants. As one modern writer (La Nauze 1949, 56–58) has pertinently commented:

> It was an innovation in English political economy to begin a treatise with a chapter on human wants, and to make the satisfaction of wants a central

> theme. . . . But this is an innovation only in English writing. The prominence which Hearn gives to wants is simply a reflection of his reading from French literature. His chapter is in places almost a transcription from Bastiat's *Harmonies,* and his sub-title echoes Bastiat's frequently repeated phrase, "Wants, Efforts, Satisfactions."[25]

Significantly, it is in this chapter that Hearn (1864, 17–18) formulates the concept of diminishing marginal utility. As Hearn presents it, the concept is a logical deduction from Bastiat's postulates that human wants are unlimited and are hierarchically ordered (Bastiat 1964, 34–46).[26]

In analyzing exchange, Hearn (1864, 237) adopts a sophisticated version of Bastiat's effort-saved approach, which emphasizes that the mutual benefits of exchange derive from the fact that each transactor "obtains at a smaller cost than he otherwise could the means of satisfying a desire or accomplishing a purpose." However, Hearn (1864, 238) advances beyond Bastiat's erroneous deduction that exchange reflects an equality of value between the two goods and anticipates the Jevonian position that "men give objects which they desire less, in return for objects which they desire more."

Hearn (1864, 244–53) employs Say's demand-and-supply approach in explaining the determination of market price. "Desirability" and "difficulty," comparable to Say's "utility" and "scarcity," are seen as the factors underlying demand and supply, respectively. Demand is implicitly treated in the modern sense of a schedule relating quantities purchased to prices, and Hearn (1864, 249–51) gives a clear literary exposition of elasticity of demand or "degrees of desirability."[27] There is also a discussion of the notion of "consumer's surplus" (Hearn 1864, 333, 338).[28]

In distribution theory, where the differences between the French liberal and British classical schools tend to be most pronounced, Hearn stands with the former on most of the disputed issues.

Hearn (1864, 329) explicitly distinguishes the entrepreneur from the capitalist and treats profit as a dynamic and residual income separate from interest. He analyzes wages and interest, not as a question of an aggregate distribution of income shares, but, following Say, as "an ordinary case of exchange" explicable "in the same manner as all other questions of price" (1894, 329). On the issue of land rent, Hearn (1864, 318–19) accepts without qualification the doctrine, peculiar to Bastiat and his followers, that "in human industry the cooperation of nature is always gratuitous." In this view, all rental income is theoretically resolvable into wage and interest income derived from the application of labor and capital to the transformation of natural resources to satisfy human wants (Hearn 1864, 318–25).

Although his discussion of capital may be heavily influenced by John Rae, as La Nauze (1949, 65–71) claims, Hearn (1864, 325–28) adopts the

characteristically French doctrine that capital accumulation leads to a progressive reduction in the rate of interest and, hence, in the relative share of the capitalist vis-à-vis that of the laborer in the final product.[29]

Like most liberal economists, Hearn (1864, 389–94) strongly rejects the more pessimistic implications of the Malthusian population doctrine. His opposition rests on Bastiat's argument (Bastiat 1964, 412–42, 557–67) that a greater population brings with it greater per capita income and wealth. This result is deduced from the observed effects of a larger population, first, in facilitating an extension of the market and the concomitant intensification of the division of labor and specialization and, second, in stimulating increased capital accumulation and more intensive exploitation of economies of scale. The wealthier the population, in turn, the more powerfully does the preventive, as opposed to the positive, check to its growth operate.

Neither are there pessimistic implications to be drawn from the law of diminishing returns to agriculture, so emphasized by the Ricardian school. Hearn (1864, 116) argues that the "steady tendency toward diminishing returns" is not peculiar to land but applies to all "natural agents." As Hearn (1864, 117) correctly explains:

> The comparison has generally been made between a particular portion of land, and some other agent to the quantity of which no limit is expressed; and not, as it obviously ought to be, between a specific portion of each. If we direct our attention to some such definite portion of any other natural agent, we shall at once observe that it presents the same phenomena as land.

Moreover, as Hearn recognizes, the operation of the law assumes a static technology and cessation of capital accumulation. However, according to Hearn (1864, 118–19):

> The condition upon which the law of diminishing returns comes into operation is never realized. That condition assumes that the skill and the power of the labourer are unchanged. But the state of knowledge and of skill, and the resources for aiding his labour at the disposal of the labourer, never do remain unchanged.

Hearn's strikingly modern formulation of the law of diminishing returns is inspired by Say and the liberal school's proto-Austrian emphasis on the crucial link between capital accumulation and the growth of labor productivity, both of which are understood to be theoretically, as well as practically, unlimited.[30] As Say ([1880] 1971, 118) wrote, "the powers of man, resulting from the faculty of amassing capital, are absolutely indefinable; because there is no assignable limit to the capital he may accumulate, with the aid of time, industry, and frugality."

Along with capital, Hearn (1864, 115–16) includes "invention" as another "aid to labour" serving to counteract the tendency to diminishing returns to land or natural resources. The prominent place given to invention in *Plutology* is further evidence of the French, and especially Bastiat's influence on Hearn.[31] This is recognized by La Nauze (1949, 70–71), who observes that the "very prominent place" given to invention in *Plutology:*

> was something new in an English theoretical treatise. . . . The prominence which Hearn gives to Invention is related to his stress upon Wants. . . . Wants are the compelling force in economic life; a confidence that their urgent presence will lead to improvement rather than misery is strengthened by faith in man's inventive ability.

Another noteworthy British anti-Ricardian of this period who drew on the ideas of the liberal school is the obscure, though not uninfluential, writer, Henry Dunning MacLeod. Schumpeter (1954, 1115 n. 7) has summed up MacLeod as "an economist of many merits who somehow failed to achieve recognition, or even to be taken quite seriously, owing to his inability to put his many good ideas in a professionally acceptable form."

Although his efforts were generally ignored by his contemporaries, seminal importance was attached to MacLeod's work by both Marshall and Jevons. Marshall (Haney 1949, 516–17) specifically mentions MacLeod as among the predecessors of Jevons "whose writings before 1870 anticipated much both of the form and substance of recent criticisms on the Classical doctrines of value in relation to cost, by Professors Walras and Carl Menger . . . and Professors v. Bohm-Bawerk and Wieser."

Jevons himself cites MacLeod a number of times in his *Theory of Political Economy.* In the final paragraph of the book, Jevons ([1871] 1970, 261) names MacLeod, along with Hearn and other British and French economists, as one whose work contains "valuable suggestions toward the improvement of the science" but is neglected because of the "noxious influence" of the dominant Ricardian school. In the preface to the second edition of the book, Jevons reveals MacLeod's influence on his own thought. Remarking upon the "mathematical spirit" of the latter's works, Jevons ([1871] 1970, 57) declares: "While I certainly differ from him on many important points, I am bound to acknowledge the assistance which I derive from the use of several of his works."

MacLeod's important contributions to economics emerge from his endeavor to "lay altogether new foundations of the science" (MacLeod 1857, v). MacLeod was unhappy with the prevailing conception of political economy as the science of the production, distribution, and consumption of wealth. MacLeod (1857, 12) argues that "the subject of Exchanges" constitutes "the limit of the pure science of Political Economy." In other words, for

MacLeod (1857, 12), political economy "treats of and includes all things, of whatever nature they may be, whether actually, or potentially existing, that may be bought or sold. These are . . . its proper limits, and its object is to discover and ascertain the laws which regulate their values."

It has been recognized that MacLeod developed his catallactic conception of economics under the influence of earlier British anti-Ricardians (such as Lord Lauderdale and Archbishop Richard Whately) and writers of the French subjective-value tradition, including Condillac, Say, and especially Bastiat (Haney 1949, 513–21; Kirzner 1976, 72–73).

In working out this catallactic approach to the science, MacLeod arrives at a number of protomarginalist insights. For instance, he denies the contention of Smith and Ricardo that the producer confers value on a thing, and he holds that "it is unquestionably certain that it is the *consumer* who bestows value" (MacLeod 1857, 111 emphasis in original). "Value does not spring from the labor of the producer, but from the desire of the consumer" (MacLeod 1857, 127). Political economy is therefore "founded upon the natural wants of the members of Society" (MacLeod 1857, xix).

In analyzing human wants as the foundation of economics, MacLeod (1857, 51) advances beyond Jevons and other early marginalists by explicitly purging the concept of all hedonistic or other psychological connotations. Thus, he reasons that:

> Political Economy has nothing to do with the reasons why people are led to desire certain objects rather than others. . . . [It] has no more to do with the reason *why* people desire certain things, than Astronomy has to do with the metaphysical cause of gravity. All it has to do is to accept the fact, and trace its consequences.

In explicating the determinants of "Instantaneous Value" or "the price actually paid in any transaction," MacLeod (1857, 98–99) clearly formulates the principle of diminishing marginal utility under the heading of "services of different degrees of intensity." The general rule, according to which price is determined, is then expressed by MacLeod (1857, 100) as follows: "Price varies directly as the intensity of the service rendered, and inversely as the power of the buyer over the seller [i.e., competition]." This rule is conceived to be "of universal application" and "to comprehend all transactions of whatever nature they be."

In emphasizing that "the relation between demand and supply is the sole regulator of value," MacLeod (1857, 111), echoing the French subjective-value theorist, Abbé Condillac, anticipates the position of the Austrian marginalists, who were to argue that market prices unilinearly determine, rather are determined by, costs of production incurred. According to MacLeod (1857, 111):

> It is indisputably true, that things are not valuable because they are produced at a great expense, but people spend much money in producing because they expect that others will give a great price to obtain them. . . . Buyers do not give high prices because sellers have spent much money in producing, but sellers spend much money in producing because they hope to find buyers who will give more.

As noted, MacLeod's reconstruction of economics on catallactic foundations and the rich harvest of marginalist insights to which it gave rise were partly inspired by writers in the French subjective-value tradition. In tracing the development of economics as a catallactic science, MacLeod himself emphasizes the important contributions of members of this tradition. Thus, the Physiocrats are designated "the true founders of the Science of Political Economy," and Quesnay is called "the patriarch of modern political economy" and "the Copernicus of Political Economy" (MacLeod 1857, 4–5).

Condillac is viewed by MacLeod as one of the most important writers, along with Adam Smith, to have "emanated from [the Physiocratic] school" (MacLeod 1896, 69). Condillac's treatise, published the same year as the *Wealth of Nations,* "lays down the broad, general outlines of true Economics." Moreover, "in scientific spirit it is infinitely superior to Smith. It is beyond all question the most remarkable work that had been written on Economics up to that time, and it plays a most important part in the history of the science" (MacLeod 1896, 73). In particular, Condillac, like the ancients and the Italian economists of the eighteenth century, "places the origin and source of Value in the human mind, and not in labour, which is the ruin of English Economics" (MacLeod 1897, 70). It is a "fundamental doctrine" formulated by Condillac, namely, that the value of the product determines the costs incurred in producing it and not the other way around, that was later used by Archbishop Whately to send "a deadly shaft into the Economics of Smith and Ricardo" (MacLeod 1896, 71).

In assessing nineteenth-century French economists, MacLeod (1896, 113) severely criticizes Say for abandoning the catallactic approach to economics by defining it as the science of the production, distribution, and consumption of wealth. Say is also condemned for basing value on a nonsubjectivist and contradictory notion of utility as an intrinsic quality of an object (MacLeod 1896, 114).

Despite these criticisms, MacLeod (1896, 111, 120) views Say as a preeminent figure in economic thought, referring to him as a "very distinguished French writer" and to John Stuart Mill as a "disciple of Say," in Mill's rejection of "the fundamental concept of Economics as being the Science of Commerce, or Exchanges, or the Theory of Value." Again, in criticizing Mill's characterization of economics as an "*a priori* science," MacLeod (1896, 120) states that "Mill is in flat rebellion against his master Say," whom MacLeod

(1896, 122) himself follows in identifying economics as an "experimental" science that reasons from observed facts and not hypothetical assumptions. Finally, MacLeod (1896, 135) tells us that "the Economics of J.B. Say reigned supreme in France" for one-half century and was introduced by Mill into England "though with many divergences."

The economist whom MacLeod (1896, 148) admires the most is Bastiat, although he apparently had not read the latter's works prior to his initial attempt at reconstructing economics. Bastiat is described by MacLeod (1896, 135) as "the brightest genius who ever adorned the science of Economics." It was Bastiat's achievement to have "entirely abandoned" the "system of Say and Mill" and to have substituted for it the conception of economics as the "Science of Exchanges" or the "Theory of Value" (MacLeod 1896, 135–36). MacLeod (1896, 138) thinks so highly of Bastiat's contribution that he appears to abandon all scientific reserve when describing it: "Thus Bastiat entirely emancipated himself from the evil influence of J.B. Say. . . . He plucked up by the roots the noxious fallacies which are the Economics of Adam Smith and Ricardo. . . . He simply cleared away the stupendous chaos and confusion and mass of contradictions of Adam Smith and J.B. Say."

The American Catallactic Tradition

After the Civil War, there appeared on the scene a catallactic and subjectivist-oriented movement in American economics which was heavily indebted to liberal economic doctrines, especially as presented in the works of Say, Destutt de Tracy, and Bastiat. Adherents of this approach included such notable economists as Amasa Walker, Arthur Latham Perry, and the former's son, Francis Amasa Walker.

Say exercised an influence on American economic thought that is difficult to overestimate. His *Traité,* in particular, is recognized by doctrinal scholars to have been enormously influential (Haney 1949, 880; Ferguson 1950, 239; Conkin 1980, 28; Bell 1953, 486; Dorfman 1946, 2: 513–14). The book was translated into English in 1821 and went through numerous editions. It was widely used as a college textbook before the Civil War and continued to be used at some schools as late as the 1880s. Moreover, the American textbooks "which were commonly used were adjusted to the teachings of J.B. Say" (Pribram 1983, 206).

Say's influence on the American catallactic economists can be seen in a number of areas. One was methodology, where Say approached economic science as a system of theorematic deductions from a few general and "observable" facts of experience (Roll 1953, 322–23; Rothbard 1979, 45–48; Salerno 1985, 312–14). Say's utility-and-scarcity or supply-and-demand approach to price theory was accepted without reservation as was Say's catallactic approach to distribution theory which "takes value and distribution to

be parts of one problem" (Davenport [1908] 1964, 114). Say's emphasis upon the role of the entrepreneur or "undertaker," as distinct from that of the capitalist, also finds expression in some of the works of the American catallactic tradition.

Tracy's *Treatise on Political Economy* (Tracy [1817] 1970) was translated into English from the unpublished French manuscript under the supervision of his friend and disciple, Thomas Jefferson.[32] The book appeared in 1817, four years prior to the English translation of Say's *Traité*. It was Jefferson's stated hope that Tracy's work would become the "elementary book of instruction" in political economy (Tracy [1817] 1970, i), but the work "found little recognition in the colleges" (O'Connor [1944] 1974, 25). Nonetheless, Tracy's work had a formative influence on Jeffersonian economics and, through the writings of Jefferson himself and his early follower, John Taylor,[33] Tracy's ideas were transmitted to later American economists.[34]

One element of Tracy's thought that was reflected in the works of American economists was his emphatic depiction of society as a purely catallactic phenomenon.[35] Tracy ([1817] 1970, 6, 15, 92) stated it thusly:

> Society is purely and solely a continual series of exchanges. It is never anything else, in any epoch of its duration, from its commencement the most unformed, to its greatest perfection. And this is the greatest eulogy we can give to it, for exchange is an admirable transaction, in which the two contracting parties always both gain. . . . *Commerce is the whole of society.*

It therefore follows that, when the political authorities impose universal price controls that effectively preclude market transactions, "in the strictest sense . . . society is dissolved; for there is no longer any free exchanges."

The liberal economist whose works served as the immediate and explicit inspiration for the American catallactic movement, however, was Bastiat.

The initiator of this movement was Amasa Walker, whose main work, *The Science of Wealth* (1875), was published in 1866 and quickly "attained wide popularity as a textbook (Ferguson 1950)."[36] It went through eight editions and was also translated into Italian (Newton 1968, 6). A condensed "student's edition" was brought out in 1871 and had already gone through four editions by 1875 (Walker 1875, v–x).

In the tradition of Say, Walker (1875, v–vi) founds political economy "like every true science, upon the observation of facts." The foundations of the science reside in two facts (Walker 1875, 18): The "*first fact* of the science" (emphasis in original) and "the foundation of all" is that man "has wants." The second fact is that "these wants can only be satisfied by efforts."

Since its premises are thus demonstrably true, Walker (1875, 19) argues, *contra* J.S. Mill, that political economy is a "positive," and not a "hypothetical," science:

> While the one element of wants or desires is secured in the constitution of man's being, the other element—viz., the relation of labor or effort to them—is fixed in the constancy of nature, and the permanence we attribute to the created world. . . . But, as man's being and nature's laws are found in experience, political economy is to be regarded as a positive science. Nothing in its fundamental principles is hypothetical or problematic.

As O'Connor ([1944] 1974, 264) has noted, "Walker extends the tendency to restrict economics to a science of values." According to Walker (1875, 22), political economy is the science of wealth where "the term 'wealth' includes all objects of *value,* and no other." In strict accuracy, political economy is the "science of values," but the term *wealth* is retained "as being more popular, and as nearer to the customary use of the words." *Value,* in turn, is defined catallactically as "the exchange power which one commodity has in relation to another" (Walker 1875, 23).

The notions of wealth and value employed by Walker come directly from Bastiat's *Harmonies,* and, indeed, Walker (1875, 24) declares that, "of all the writers on the subject, no one seems to have been more full and clear in the definition and illustration of value than M. Bastiat." Walker (1875, 24–27) follows this declaration with almost three pages of quotations and examples drawn from *Harmonies,* which are intended to establish the dual proposition that the value of a thing depends on "the will of the purchaser, as determined by his judgment" and "is the service or labor which [the thing] will command in exchange."

Without examining Walker's theoretical system in any great detail, suffice it to say that, in the departments of production and distribution, his doctrines show a much greater affinity with Say, Bastiat, and the liberal school than with the classical school.[37]

For example, Walker (1875, 27–31), like Bastiat, holds that Nature provides her "utilities" gratuitously, "adds *value* to nothing," and, therefore, land as a purely natural agent generates no income return for its owner. Rent, as conceived by Walker (1875, xiv, 325–26), is the "reward of fixed capital," i.e., the interest return to capital invested in land.

Following Say, Walker views the distributive shares accruing to the various factors of production as determined catallactically, i.e., by the laws governing exchange. Thus, according to Walker (1875, 276, 316–17, 320, 332):

> The law of value is the law of wages. . . . [Wages] depend essentially on the conditions of cost, supply, and demand. . . . The average rate of profits . . . is determined by the same law as wages. Profits are merely *wages received by the employer.* . . . If there are more laborers than are wanted, wages fall; if fewer, they advance: just so with employers or business undertakers. . . . Interest will be governed by the law of supply and demand. This is so evident as not to require argument or proof. . . . rents regulate themselves; or, in other words, are governed entirely by the operation of the laws of value.

Newton (1968, 6) has argued that "the primary contribution [of Walker's work], from the perspective of the development of American theory, was its conception of the entrepreneur as a separate productive factor which must be distinguished from the capitalist." This, of course, is completely consistent with the thesis that the primary influence on Walker's economics was the French subjective-value tradition, which, from the time of Turgot, sharply distinguished the function of the "undertaker" from that of the capitalist.[38]

Walker introduced his close friend, Arthur Latham Perry, to Bastiat's work (O'Connor [1944] 1974, 265; Dorfman 1946, 2:981). Perry's reading of Bastiat inspired him to attempt a radical transformation of political economy from a "science of wealth" to a "science of exchanges."[39]

Perry's description of his efforts in this respect is instructive, because it brings to light the profound influence of Bastiat on his thought. After detailing the early misgivings he had entertained regarding the adequacy of the term *wealth* to encompass the phenomena treated by political economy, Perry (1878, *vi*) declares:

> My mind had almost reached the conclusion in which it has now rested for many years with perfect composure, when my late friend Amasa Walker . . . recommended to me Bastiat's *Harmonies of Political Economy.* I had scarcely read a dozen pages in that remarkable book, when the field of the science, in all its outlines and landmarks, lay before my mind just as it does to-day. I do not know how much I brought to that result, and how much towards it was derived from Bastiat. I only know that, from that time, Political Economy has been to me a new science.

In Perry's hands, political economy is reformulated as the "Science of Buying and Selling," and its domain becomes "Value, or Sales, or Exchanges" (Perry 1891, 61, 66). Accordingly, the "law of supply and demand" is given center stage as "the most comprehensive and beautiful law in Political Economy," and Perry (1891, 52) devotes his treatise to "filling in" the details of this law.

Perry, like Bastiat, seeks the foundations of the science in subjective phenomena connected with human wants and their satisfaction. This is reflected in his dictum that:

> Invisible Desires and Satisfactions felt in connection with Exchanges are among the most constant elements of human nature; they . . . give birth to the relatively more transient (though visible) data of Efforts and Renderings; while inferences and conclusions and even predictions may be securely drawn from all of these, giving a solid ground for political economy to stand on. (Perry 1891, 31–32)

Perry's understanding of the subjectivist basis of economic activity leads him to a radical and un-Ricardian accentuation of the inherent changeability

and unpredictability of economic data and outcomes. This is graphically illustrated in the following quotation (Perry 1891, 42):

> One of the chief charms of Political Economy is the open secret, that it deals not with rigidities and inflexible qualities and mathematical quantities and the unchanging laws of matter, but with the billowy play of desires and estimates and purposes and satisfactions, all of which are mental states, and all of which are subject in the general to ascertainable laws, though laws of a quite different kind from those of Mechanics. Values come and they go. Within certain limits and under certain conditions they may be anticipated and even predicted, but never with the precision of an eclipse or the result of a known chemical combination. . . . [The Science of Value] is a science that deals primarily with *persons* and only secondarily with *things*, with mind and not with matter. . . . And all this is so because Values are relative, because announcements in the market-place to-day may stand listed differently tomorrow and very differently next year, and because old values may disappear altogether and many new ones come in, all in accordance with the incessant changes in the wants and labors and fashions and projects of men.

Perry's theories of exchange and welfare are logically linked with his theory of human wants. Exchange is a mutually beneficial enterprise catering to increased want-satisfaction. Any barrier to this enterprise, such as government intervention, *ipso facto*, reduces economic welfare. The laissez-faire policy prescriptions of the liberal school are thus given a logical foundation in catallactic science.[40]

According to Perry (1891, viii):

> As these universal actions [i.e., buying and selling] among men are always voluntary, there must be also a universal motive leading up to them; this motive on the part of both parties to each and every Sale can be no other than the mutual satisfaction derivable to both; the inference, accordingly, is easy and invincible, that governmental restrictions on Sales, or prohibitions of them, must lessen the satisfactions and retard the progress of mankind.

In the theory of distribution, no less than the theories of value, exchange and welfare, Perry is greatly inclined to take up positions originally staked out by liberal predecessors, especially Bastiat.[41] Thus, for example, Perry (1891, 146–47) denies Ricardo's dictum regarding the existence of "original and indestructable powers of the soil" and counters with the assertion that "There never was any land anywhere fit for cultivation and sale without more or less expenditure of human labor and reserved capital upon it." Moreover, the powers of the land are hardly "indestructible," but "require a constant application of labor and capital to keep up their fertility." For Perry (1891, 148), then "nearly all valuable lands are Capital also, that is to say, products reserved to aid in a further and future production."

From the inclusion of land under the rubric of "capital," Perry deduces several anticlassical and proliberal implications for distribution and production theory.

First, the essential identity of rent and interest is emphasized in the following proposition (Perry 1891, 151): "*the Rent of leased lands whether for buildings or harvests is the same in nature with the Interest on money loaned, and is the measure of the service rendered by the owners to the actual users of the Capital.*" It follows that, since labor and capital are the only two productive factors, the only two distributive shares are interest and wages. Accordingly, "the aggregate products created by the joint agency of Capitalist and Laborer are wholly to be divided between the two. There can be no other claimant even" (Perry 1891, 235).

Second, far from denying the operation of the "law of diminishing returns" in agriculture, Perry (1891, 153), like Hearn, naturally broadens it to apply to all forms of capital, though only under static conditions: "Increase of efforts in connection with any form of capital unimproved by new inventions and uninvigorated by fresh skill, though they may indeed increase the aggregate return, cannot . . . *secure an increase proportioned to the increase of the efforts*"[42] (emphasis in original).

Based on the foregoing considerations, Perry (1891, 176) concludes that Ricardo's rent doctrine is "superannuated"; moreover, the doctrine is inadmissible in subjectivist-oriented catallactic science, because, according to Perry, Ricardo "makes everything turn on the Cost of Production of the Produce, which is Effort, ignoring the ever-varying demands for the produce, which is Desire."

Perry's circumscription of economics within the boundaries of catallactics leads him to reject classical teaching in other areas of distribution theory as well. For example, he argues the "irrelevancy of Malthusianism to the Science of Economics" (Perry 1891, 217), based partly on the view that population questions should properly be regarded as data by a science focussing on exchanges. Perry (1891, 216) reasons that:

> Political Economy presupposes the existence of Persons able and willing to make exchanges with each other, before it even begins its inquiries and generalizations. How they come into existence, the rate of their natural increase, and the ratio of this increase to the increase of food, however interesting as physiological questions, have clearly nothing to do with our Science.

Additionally, while Perry (1891, 217) admits that there is an "abstract antagonism" between "the law of the increase of population" and "the law of diminishing returns from Land," he denies that there exists any "practical tendency" for this to be the case currently or in the future.

In analyzing distribution phenomena as the logical outcome of welfare-optimizing market-exchange processes, Perry affirms the liberal doctrine that

the capitalist and laborer are natural allies, and not antagonists, in the production process.[43] Accordingly, Perry (1891, 238) characterizes the relationship between capitalist and laborer as "a case of pure Buying and Selling." As mutual beneficiaries of this ongoing exchange relation, capitalist and laborer coexist as "joint partners in the same concern," and their "interests are identical" (Perry 1891, 193). In normal circumstances, "The Demand of each class for the product of the other will continue unabated. Profits and wages reciprocally beget each other" (Perry 1891, 193). This is necessarily so, because "It is out of the return-service received from the *sale* of the commodities produced jointly by the capitalists and laborers, that both wages and profits must ultimately be paid" (Perry 1891, 195).[44]

To underscore the mutually beneficial catallactic relationship that is the basis of income distribution and to emphasize the fact that "Economics is a science of Persons from beginning to end," Perry (1891, 181, 183, 238) would replace the standard English terms *labor* and *capital* by *labor-givers* and *labor-takers,* respectively, which are English renderings of terms used by contemporary German economists.

Lastly, while Perry adheres to a flexible variant of the classical wage-fund theory (Newton 1968, 87; Bell 1953, 500),[45] he does affirm the proposition, enunciated by Bastiat and accepted by Hearn, that capital accumulation always results in declining rates of profit and interest and a corresponding increase in the absolute and relative share of labor in the net product (Perry 1891, 233–35).

Perry has been described as "one of the best equipped economists that America produced prior to 1885" (Turner 1921, 179) and his work had a substantial influence in the United States. His textbook, *Elements of Political Economy,* was first published in 1866 and went through twenty-two editions (Bell 1953, 498). Furthermore, as Dorfman (1946, 2:983) notes, "for almost a quarter of a century it was the most popular treatise in the country." O'Connor ([1944] 1974, 265) judges it "the outstanding book of its period." In 1876, Perry's text ranked third behind Mill's *Principles* and Smith's *Wealth of Nations* on a list of the ten "most salable books on political economy" (Bell 1953, 498). Also, the Japanese translation of the 1876 edition "became one of the main sources for the teachings of economics in the early years when Western ideas were being adopted in Japan" (Bell 1953, 498).

Perhaps the most influential American economist of the last quarter of the nineteenth century, however, was General Francis A. Walker, son of Amasa Walker. It has been said of the younger Walker that he "turned classical theoretical ideas on their heads" (Ekelund and Hebert, 1983, 402). And it may be added that he did so under the influence of liberal economic doctrines that he had absorbed from the American catallactic movement.

Walker had helped his father in preparing the latter's textbook for publication in 1866 (Bell 1953, 495; Newton 1968, 7). He published his own treatise on general theory in 1883 and "the book follows the same outline as

his father's [book]" (Bell 1953, 507). The younger Walker's work quickly became "the most popular treatise used in the basic college economics course" and maintained that position until the turn of the century (Newton 1968, 12).

Although Walker diverged from his father and especially Bastiat and Perry on particular questions of scope and method, distribution theory, and labor policy (Newton 1968, 18, 20, 40, 51, 80, 84, 153–54), he generally adhered to the liberal-inspired catallactic approach in most departments of pure theory. Thus, for example, the French historian of thought, Carles Gide (1905, 23 n.1), includes Walker, along with Ferrara and a number of French economists, among the "principal representatives" of the liberal school in the nineteenth century.

Walker (1888, 1) identifies the subject of political economy as "wealth," where wealth is defined as comprising "all articles of value and nothing else." Value is defined in Bastiat's sense of "power-in-exchange."

In his discussion of the appropriate methodology of economics, Walker places himself in the liberal camp. While Walker (1888, 27) chides certain liberal economists such as Bastiat for their lapses from strict *Wertfreiheit,* he declares that "the French writers . . . have, in general, been singularly just in their apprehension of the character and logical method of political economy." He supports the position of Cairnes—which was also that of Say and his father, though Walker does not mention it—that the "premises" of political economy must be factual and realistic as against the position of J.S. Mill and what he refers to variously as "a priori," "Ricardian," or "English" political economy that the assumptions of the science are merely hypothetical (Walker 1888, 12–17).[46]

In value and price theory, also, Walker (1888, 87) declares for the liberal rather than the classical line of approach, contending that "neither cost of production nor cost of reproduction determines the power which an article shall have in exchange. . . . Value depends always on the relation between demand and supply."

Walker, however, does not rest content with a simple supply-and-demand theory, but integrates it with Jevons' theory of final utility. According to Walker (1888, 101), therefore, "market price always measures Final Utility of the commodity, that is, the utility of it to the last purchaser to whom it is just worth while to buy of it, at that price."[47]

A few writers (Bell 1953, 508–9; Newton 1968, 104–5) have noted that Walker developed concepts in value and price theory whose origination is usually ascribed to Alfred Marshall. For various reasons, Walker's contributions in this area were relatively neglected and did not influence his contemporaries (Newton 1968, 106–7). What is of interest here is that these innovations were undetaken by Walker within the framework of the liberal-subjectivist catallactic approach.

The area in which Walker is widely recognized to have made original

contributions is distribution theory (Bell 1953, 509–11; Haney 1946, 880–81; Newton 1968, 39–97). Schumpeter (1954, 867) lists the residual-claimant theory of wages, emphasis upon the role of the entrepreneur, and criticism of the wage-fund theory as Walker's "contributions to economic theory." But all of these are positions that were long held by liberal economists.

From the time of Turgot ([1898] 1971), French economists, in contrast to their British counterparts, sharply distinguished the dynamic and activist role of the entrepreneur, the recipient of profit, from the relatively passive role of the capitalist, who provided monetary advances to initiate the production process and received interest in return. Newton (1968, 33) points out that Francis A. Walker initially "derived the fundamental concept of the entrepreneur from his father." However, the younger Walker eventually became "fully cognizant of the contribution of a line of French writers who, following the precedent of . . . Say, delineated the function of the entrepreneurs, and separated out of English classical gross profits, the interest earned by the capitalist" (Newton 1968, 33–34, n. 21).

The catallactic theory of wages deriving from Say's writing was inconsistent with the concept of a wage-fund and later French liberal writers would have none of it. Walker (1888, 251) himself comments that "when, in 1874, I had occasion to trace the genesis and the literary history of the Wage Fund Theory, I did not find a single French economist infected by the pernicious doctrine which long held sway across the channel." Walker's positive theory of wages, which stressed the productivity of labor, also had its roots in the Say-Bastiat tradition. This is evidenced by the fact that two prominent French liberal economists, Leroy-Beaulieu and Emile Levasseur, independently and concurrently formulated very similar theories (Cassel 1932, 310; Newton 1968, 83; Levasseur 1900, 370–71, 389–90).

Writers of the American catallactic movement were also greatly influenced in the area of money and banking theory by liberal doctrine. This was manifested especially in their staunch opposition to all but 100 percent specie-reserve banks.

For example, Amasa Walker (1875, 151–241) spends almost one quarter of his 450-page treatise on general theory arguing that a "mixed currency," consisting of specie and fractionally backed bank notes and deposits is unfit to act well as either a standard of value or a medium of exchange.

Perry (1866, 246–66), at least in his early writings, goes further than Walker and even questions "the issue of paper money with a 100 percent reserve" (Bell 1953, 501).[48] For Perry (1866, 254), the "fundamental vice" of all forms of paper money, including convertible bank notes or "credit-money,"

> is that there is no natural limitation of its supply. There is relatively no obstacle to its indefinite increase; and therefore the value dependent on such conditions of supply has no sufficient stability; and therefore credit-money

> is necessarily, and by demonstration, inferior to gold and silver money in the cardinal point of a steady value.

Regarding the U.S. experience with "free banking," Perry (1866, 258) argues that natural commercial occurrences such as foreign payments deficits have led to panics that have

> compelled all the banks to confess, what everybody knew before, that they were unable to redeem their promises. These repeated suspensions of specie payments proclaim the whole system to be unsound. They show that credit is no proper basis on which to build a currency. . . . There can be no hesitation in affirming that the expense of maintaining a gold and silver currency for all the wants of the whole country might have been met many times over from the losses resulting from the bank-paper system.

Nor is Perry (1866, 260–61) much more enamored of the National Bank system, which had just replaced the free banking system in the United States. For Perry (1866, 260–61):

> The mischief of it is, this money [i.e., National Bank note issues] cannot regulate its own quantity; it is not guarded, as gold and silver are, by a natural limitation of supply. The vote of Congress would be sufficient to double or treble its quantity. . . . After all that can be said in favor of it, it is credit-money still, and exposed to the dangers inseparable from credit-money, namely, distrust of the people, the undue enlargement and sudden diminution of its volume, a consequent unsteadiness of value, and inconvertibility.

Finally, Perry (1866, 263) praises Peel's Act as a "well-considered scheme of restraint" on the note issues of the Bank of England. Nevertheless, he contends that, the stated intention of the framers of Peel's Act notwithstanding, "the present convertible money of Great Britain does not in fact vary so perfectly in volume and value as a metallic money would do under the impulses of trade" (Perry 1866, 264–65). In fact, Perry (1866, 265) argues that the very existence of Peel's Act "shows that there is something factitious and unnatural about paper money, when so rigid a system of restraint is considered needful to prevent disastrous fluctuations in volume and value."[49]

F.A. Walker ([1878] 1968, 524), in his influential treatise *Money*, critically analyzes the various arguments in favor of fractional-reserve banking and concludes with the proposition that "a paper issued above the amount of specie held for redemption, however carefully managed, tends to excess in greater or less degree."[50] Elsewhere, Walker (1888, 171) argues that "there resides in bank money, even under the most stringent provisions for convertibility, the capability of local and temporary inflation."

Now hostility to banks in general and to fractional-reserve banks in par-

ticular has a long tradition in American economic thought, traceable back to Thomas Jefferson. Jefferson's attitude toward banks is illustrated in one of his typical attacks on the Federalists for trying to establish an aristocratic government "founded on banking institutions, and moneyed incorporations under the guise . . . of their favoured branches of manufacturers, commerce and navigation, riding and ruling over the plundered ploughman and beggared yeomanry" (Dorfman 1946, 1: 444). Jefferson "attacked any issue of bank paper beyond the supply of specie," and, in reaction to the Panic of 1819, he proposed a plan that would lead to "the eternal suppression of bank paper" (Rothbard 1962, 137, 140).

The leading Jeffersonian political economist, John Taylor, elaborated and systematized Jefferson's critique of the Federalist's drive for a "financial aristocracy, based upon a monopoly of monetary powers and privileges" (Wilhite 1958, 335). According to Taylor ([1814] 1950, 268, 313):

> It is . . . the office of paper currency to transfer wealth . . . from man to man, or from nation to corporation. . . . So long as it represent wealth, corporations able to create it [i.e., banks] can . . . draw wealth from the rest of the nation by its means. . . . If then a nation bestows a pecuniary income on an order of nobles or bankers, it conveys so much of its services to this order as the money represents. . . . It is clear that nations, by giving any species of currency to an order or interest, will give it a title to every species of service from the multitude; that the revival by law of a title to such services through the intervention of a currency is a substantial revival of the feudal system.

Taylor's perception of banks as privileged, monopoloid, and inherently inflationary institutions, fundamentally inconsistent with a free society, led him to oppose private as well as public banks (Wilhite 1958, 342; Conkin 1980, 65–71; Dorfman 1946, 1: 301–4).

The Jefferson-Taylor analysis of banks, in turn, can be traced directly to the work of Destutt de Tracy. As Leonard Liggio (1984, 81–82) has recently emphasized, with respect to banking theory, "American economic thought in the 19th century was dominated not by English economic writing but by the political economy treatises of Jean Baptiste Say and Destutt de Tracy, both of which were published in America through the efforts of President Thomas Jefferson."

In his brief but incisive analysis of fractional-reserve banks, Tracy ([1817] 1970, 104) emphatically argues that "these large companies" always have their origination in monopoly privilege granted to them by government, which they receive in exchange for low-interest or gratuitous loans to the political authorities. "It is thus that the one sells its protection and the other buys it" (Tracy [1817] 1970, 105). Inevitably, however, the privileged bank's note issues expand to such an extent that the bank is unable to maintain convertibility and it then is compelled to seek from government the additional

privilege of suspending redemption of its outstanding note liabilities. When the bank receives authorization to suspend specie payments, "Society finds itself in the full state of *paper money*. . . . It is thus all privileged companies end: they are radically vicious; and every thing essentially bad always terminates badly" (Tracy [1817] 1970, 105).

After a sophisticated account of monetary inflation, which emphasizes its sequential diffusion through the economy and its nonneutral "distribution" effects, Tracy ([1817] 1970, 93–94) concludes:

> In vain would it be said that paper money, may be used, without being abused to this excess, constant experience proves the contrary; and, independently of experience, reason demonstrates . . . that it is not made *money*, that is to say having a forced circulation, but on purpose to be abused. . . . All paper money is a phrensy of despotism run mad.

Even in the case where banks are "so sophisticated" not to produce the "horrible danger" of inconvertible paper money, "the advantages promised by them would be illusory or very inconsiderable, and could add but very little to the mass of national industry and wealth" (Tracy [1817] 1970, 105). Tracy therefore prefers a 100 percent specie currency.

Conclusion

My purpose in this article has been to demonstrate that the contributions of the French liberal school to economic theory were recognized and utilized by some economists who are generally considered to have played prominent roles in the initial development of modern marginalist economic theory or who have anticipated and influenced such development. If this much is accepted, then the attempt of Schumpeter and other scholars to explain the Anglo-American neglect of the liberal school in terms of the latter's analytical sterility or indifference immediately founders. While an alternative explanation has not been provided, considerable progress has been made by radically shifting the focus of research from alleged analytical shortcomings of the liberal school to the identification of the institutional factors that have impeded recognition by (most) English-speaking economists of the substantive theoretical content of liberal economics.

Notes

1. The school is perhaps better known to Anglo-American economists as the "optimist" school. However, the latter is an epithet invented by opponents of the school and explicitly repudiated by those whom it was intended to designate.

2. Ironically, Cairnes ([1888] 1965, 31 fn. 2) characterized this theory as "no doubt, irreconcilable" with Say's supply-and-demand approach to the determination of wages.

3. This statement appears in a letter written to J.S. Mill by Cairnes in 1870 and cited by de Marchi (1973, 92). De Marchi (1973, 92 fn. 45) also reports that, in an earlier letter to Cairnes, Mill had expressed the opinion that "French political economists shared largely in the defects of French philosophic writers in general, these being 'decidedly inferior in closeness and precision of thought to the best English.'"

4. Schumpeter does not appear to have been familiar with Lamontagne's contribution, since it is not cited in his *History of Economic Analysis* (Schumpeter 1954). Marian Bowley was another writer whose contribution in this area seems to have been neglected by Schumpeter. Bowley ([1937] 1967, 66–116) sketched out the "Continental" subjective-value tradition in her discussion of the doctrinal roots of Nassau Senior's subjectivisit-oriented approach to the theory of value.

5. While Walras certainly emerged from the Say tradition, there were important methodological issues separating him from the mainstream of the French liberal school, including the latter's uncompromising rejection of mathematical economics.

6. For treatments of Say's methodology that emphasize its procedure of deductive reasoning from factual premises, see Roll (1953, 322–23), Rothbard (1979, 45–49), and Salerno (1985, 312–14).

7. For an overview of Ferrara's contributions to economic theory, see Weinberger (1940).

8. The Italian historicist and socialist, Achille Loria (1900, 117; 1891, 61), one of the fiercest contemporary opponents of Ferrara's economics, refers to Ferrara as "the greatest Italian economist of the nineteenth century" and "without doubt, the greatest genius of which the economic science of our country boasts."

9. This accords with the view of Ferrara's contemporaries, who saw him as an Italian representative of the French liberal school. For example, Cossa (1893, 494) classifies Ferrara as a "scientific optimist," Rabbeno (1891, 446) calls him "the prince of the Italian liberals," and Loria (1891, 74) refers to "the absolute domination of Franco-American optimistic theories under the intellectual dictatorship of Ferrara."

10. Thus, the older view, as expressed by Weinberger (1940, 97 fn. 20), that Ferrara was inconsistent in "admitting the equivalent importance of utility in respect to the quantity of value" rests on a fundamental misconception of Ferrara's research program. A striking exception to the older view of Ferrara's work as a belated rearguard action to preserve the classical system is presented in the work of Arthur Marget. Marget ([1938–42] 1966, 2: 355–56) views Ferrara as a protogeneral equilibrium theorist, whose literary exposition of the "circular flow" of economic activity was superior to Walras's in its emphasis upon "the mutual interdependence of economic phenomena *in time*."

11. On the dominance of Ferrara's school during this period, see Cossa (1893, 493–513), Loria (1891), and Rabbeno (1891).

12. Details of this reaction and the controversy it provoked can be found in Rabbeno (1891 442–46), Cossa (1893, 504–6), and Haney (1949, 832–35).

13. Barucci (1973, 264) explains that "this double name is on the banner round which economists rallied in Italy."

14. While the acknowledged leader of this movement, Pantaleoni, developed marginalism "along the Gossen-Jennings-Jevons line . . . the Austrian school was the most influential among Italian economists in the period 1886–90" (Barucci 1973, 257, 265). It was, in fact, the liberal Augusto Graziani who did the most to familiarize Italian economists with Austrian contributions (Barucci 1973, 261–62). In declaring the victory of Austro-marginalism over the doctrines of the Lausanne school in Italy, Loria (1926, 909) states:

> Indeed, whilst the liberal school from the beginning praised the mathematical method as being the only means of bringing to light the laws of economics, its later representatives have admitted this method has not up to the present discovered any economic truth hitherto unknown. . . . In the same way, whilst formerly the liberal economists applying purely intellectual mathematical methods proclaimed the inter-relationship of all economic phenomena, and excluded entirely from our science the principle of causality,—on the other hand their more cautious successors have restored to this principle the crown of economic investigation.

15. Weinberger (1940, 100) also notes the parallel between the Austrian imputation theory of factor pricing and Ferrara's application of his law of reproduction to the phenomena of distribution.

16. For a discussion of this concept, see Molinari ([1904] 1971, 81–95, 144–53) and Hart (1981–82, 5: 416–21).

17. On the "silent revolution," see Molinari ([1904] 1971, 138–43, 168–74).

18. War as a form of political competition is discussed in Molinari ([1904] 1971, 19–28) and Hart (1981–82, 5: 421–23).

19. On these and related points, see Molinari (1977) and Molinari ([1904] 1971, 75–101).

20. As Hutchison (1973, 185) has pointed out, "there was much less agreement between the rebels regarding what should replace the orthodox theories than that these theories should be rejected. For nearly two decades there was in Britain a somewhat confused interregnum."

21. On the problem that Say failed to resolve in relating utility to price and that led to the subsequent victory of Ricardian cost-of-production analysis over utility analysis in British value theory, see Bowley (1972, 15–18).

22. For overviews of Hearn's life and work, see Copland (1935) and La Nauze (1949, 45–97).

23. La Nauze (1949, 87–88) also defends Jevons' originality, asserting that what Jevons found "in *Plutology* was a welcome and encouraging confirmation of some of the lines of thought he had been developing." Hayek (1952, 529 n. 1), however, expresses a somewhat divergent opinion.

24. La Nauze (1949, 97–98) supplies a brief etymology of the word in economic discourse. Also see Gide and Rist (1948, 380) and Copland (1935, 19–20).

25. In countering Cairnes' claim that Bastiat had no following, Jevons (1873, 6) points out that Courcelle-Seneuil's general approach to economics, "followed since by Professor Hearn," derives from Bastiat.

26. Cf. Copland (1935, 21–22, 30–31). La Nauze (1949, 72), however, strains to deny the claim of Jevons, Edgeworth, and others that "Hearn grasped the idea of diminishing marginal utility in a way relevant to the theory of exchange."

27. Copland (1935, 31) argues that Hearn "had probably a clearer conception

of the nature of demand than most of the classical economists, and among British economists he suggested principles of diminishing utility and elasticity of demand before their classical statement by Jevons."

28. La Nauze (1949, 76) notes the discussion but belittles its significance.

29. This is not to say that the capitalist suffers a diminution in the absolute size of his interest income, because, as Hearn (1864, 328) points out, "although the capitalist' share of the product is thus diminished, yet as the product itself continues to increase, the smaller share of the larger product is more than equivalent to the larger share of the smaller product." Were this not the case, "there would be no motive for investment," since "the increase of investment implies gain." The foregoing argument was initially propounded by Bastiat (1964, 92–96).

30. La Nauze grudgingly admits that Hearn's statement of the law of diminishing returns constitutes a definite advance over that of earlier economists, including the two Mills. Thus, La Nauze (1949, 83–84) comments that "[Hearn's] view shows a change of emphasis, not a new approach. . . . Properly worked out it could lead to a more satisfactory discussion of the question of the combination of factors and the variation of costs than earlier economists were able to achieve."

31. Hearn (1864, 167–99) devotes two full chapters to a discussion of the causes and consequences of invention. In his *Harmonies,* Bastiat (1964, 284–301) places great emphasis on the market processes by which individual acts of capital accumulation, invention, and appropriation of natural resources are translated into rising living standards for the entire economy.

32. On the peculiar circumstances surrounding the translation of Tracy's manuscript into English, see Dorfman (1946, 1: 434, 2: 532) and O'Connor ([1944] 1974, 25–26).

33. For discussions of Taylor's economic thought, see Conkin (1980, 43–76), Dorfman (1946, 301–4), Grampp (1945), Stromberg (1982, 35–48), Foshee (1985), Macleod (1980), and Wilhite (1958, 320–46).

34. Tracy's influence on Taylor is noted by Stromberg (1982, 41, 47–48 n. 32) and O'Connor ([1944] 1974, 25–29, 57). Also, Teilhac (1936, 33, 107) refers to "the Franco-American tradition of Destutt de Tracy, Say, Bastiat, Raymond, Carey and George."

35. Recognition of the strong catallactic orientation of Tracy's economics can be found in Kirzner (1976, 72) and O'Connor ([1944] 1974, 28).

36. Bell (1953, 495, 498) writes that Walker's book "was widely used in its day. . . . [It] was well received and extremely influential."

37. For an insightful discussion of Walker's rent theory that emphasizes its non-Ricardian orientation, see Turner (1921, 173–77). Bell (1953, 495–98) and Dorfman (1946, 2: 749–52) also present good summaries of Walker's thought.

38. However, Newton's overall conclusion is that A. Walker's work "was, in the main, in the orthodox English 'classical' tradition" (Newton 1968, 6). Newton's assessment of Walker's doctrinal heritage is curious, in view of the fact that Newton (1968, 100) himself recognizes that Walker's value and price theory is "considerably influenced by Bastiat's approach."

39. For a discussion of Bastiat's influence on Perry, see MacLeod (1896, 154–55). In his later work, Perry (1878, x–xi) also acknowledges intellectual debts to

MacLeod, Jevons, and F.A. Walker. Also, Perry's son and biographer, Carroll Perry (1923, 7), briefly discusses the doctrinal influences on his father's work.

40. Rothbard's judgment that the writings of the French liberal school "reveal that their *laissez-faire* conclusions were post-judices—were judgments based on their analysis, rather than preconceptions of their analysis" (Rothbard 1977, 30) certainly applies to Perry.

41. A critical summary of Perry's distribution theory is provided by Turner (1921, 182–90).

42. Turner (1921, 188–89), however, points out several confusions marring Perry's treatment of the law of diminishing returns.

43. Thus, Perry's work "denies the old category of distribution" and focusses on "'the natural God-appointed test of free exchanges'" (O'Connor [1944] 1974, 266). Commenting on the original features of his own work, Perry (1878, viii–ix) declares: "I dropped entirely the long-maintained distinctions between the Production, Distribution, and Consumption of Wealth."

44. For a discussion of Perry's theory of the division of the "return-service" between wages and profits, see Bell (1953, 501–2). It should be noted that Perry, closely following Bastiat, diverges from the mainstream of French liberal distribution theory in ignoring the analytical distinction between the capitalist and entrepreneurial functions and income shares.

45. Under the force of F.A. Walker's influential criticisms, Perry (1878, x–xi) was led to surrender almost the entire original concept, although he continued to employ the term *Wages-Fund* in his theory of wages.

46. In his discussion of Walker's rejection of the Ricardo-Mill methodology, Newton (1968, 19–23, 27) overplays the influence of the German historical school on Walker, while ignoring the methodological tradition of Say, which Walker absorbed through his intimate familiarity with the works of his father and Perry. Newton's oversight is understandable, in light of the fact that Walker (1888, 1–33) appears to have taken pains to avoid references to the ultra–laissez faire American catallactic school, replacing them with citations of the scientifically more respectable works of Senior and Cairnes, whose positions on the scope and method of economics paralleled or were influenced by Say.

47. Newton (1968, 103–4) denies that the concept of final or marginal utility plays a significant role in Walker's exposition of price theory.

48. By the publication of his most mature work in 1891, however, Perry (1891, 286–302) had retreated to a defense of the fractional-reserve, free-banking system.

49. Despite his advocacy of a 100 percent specie currency, Perry does not oppose market-produced "near moneys," which operate to naturally economize on the costs of a specie standard. Thus Perry (1866, 265) argues that his position in favor of an all-specie currency

> does not exclude the freest use of those convenient economizing commercial expedients, such as bills of exchange, drafts, checks, money-orders through the post office, and so on, which are sufficient to prevent for the most part all burdensome transfers of coin. . . . Let the currency stand securely in its own right as value-money [i.e., gold and silver], and then the various forms of paper credit will safely come in to remove all the inconveniences and secure all the advantages of a perfectly sound, and everywhere acceptable, and a naturally self-regulating money.

50. Newton (1968, 111) writes that Walker's *Money* "became the standard work by which to train the increasing numbers of teachers and students that were emerging on the American scene in the two decades following its publication." Also see Dorfman's reference to Walker's authority on monetary economics (Dorfman 1946, 3:103).

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The Austrian Economists and the Late Hapsburg Viennese Milieu

Arthur M. Diamond, Jr.

Ludwig von Mises observed, "It is customary to trace the influence that the milieu exerted upon the achievements of genius" (1969, p. 9). He goes on to suggest that, whatever the general merit of the custom, it is unsound when applied to the great thinkers of Austria. Not heeding Mises' warning, eminent philosopher and historian of science Stephen Toulmin, along with his coauthor Allan Janik, argues in *Wittgenstein's Vienna* that late Hapsburg Viennese intellectuals had strikingly similar philosophical backgrounds, problem sets, and ethical outlooks. The book is in part an attempt to isolate the "general philosophical framework which was the common possession of musicians, writers, lawyers and thinkers of all kinds" and to focus on "the common themes and problems . . . of writers, thinkers and artists in all fields" (pp. 29 and 30). In this article, I shall argue that there was greater diversity in the problems and philosophical backgrounds of Viennese intellectuals than *Wittgenstein's Vienna* suggests. Since we are to deal with a claim that applies to intellectuals in "all fields," it will be profitable to examine a field that in *Wittgenstein's Vienna* is disposed of in one sentence: economics. The one sentence states that: "Menger's Marginal Utility Theory—so characteristically Viennese in its emphasis upon the psychological and subjective factors which underlie value—is still a central tenet of many modern economists" (p. 53). That economics was more significant in the intellectual life of Vienna than the space devoted to it by Toulmin and Janik would indicate is attested to by historian Arthur May: "In no sphere of thought were Austrians more conspicuous than in economics" (1951, p. 318).

This article will be divided into three sections. In the first, I shall seek to learn whether we find in the Austrian economists a further instance of the dominance in Vienna of Kantianism. The second section will deal with the Austrian theory of marginal utility in order to discover whether it is in fact connected more to subjectivist ethics (associated with Tolstoy and Kierke-

I am grateful to Murray Rothbard, Walter Block, and an anonymous referee for several useful comments.

gaard in *Wittgenstein's Vienna*) or to independent developments in the science of economics. I shall attempt to deal in the third section with what we can learn from Austrian economists about the general Viennese milieu. In particular, I shall be concerned with the questions of whether Hapsburg society was indeed stagnating and decadent and whether there was in fact no opportunity for involvement in the world as an alternative to introverted subjectivism.

Neo-Kantian versus Non-Kantian Influences

In *Wittgenstein's Vienna,* the intellectual atmosphere of pre-1919 Vienna is described as a "neo-Kantian environment" (p. 22). The Kantian influence has been affirmed by some, ignored by others, and disputed by a few.[1] The central message of Kant that is claimed by Janik and Toulmin to have influenced Viennese culture is that the structure of the mind limits what we can say and know. Although the main alternative to Kantian influence usually mentioned is Aristotelian influence, I shall contrast the a priori deductions from pure reason of a Kantian with "empiricism" defined very broadly so as to include not only Aristotle and modern positivism but also the ideal-types methodology of Weber. In order to learn whether Viennese intellectual life was at root thoroughly Kantian, I shall look for a Kantian influence on five of the most eminent members of the Austrian school of economics: Carl Menger (1840–1921), Friedrich von Wieser (1851–1926), Eugen von Bohm-Bawerk (1851–1914), Ludwig von Mises (1881–1973), and Friedrich von Hayek (born 1889).

The distinction between empiricism and Kantian methodology for the Austrian economists was not one between a positivist and a nonpositivist view of the acquisition of economic knowledge. None of them saw economics as an empirical science in the narrow positivist sense, although they all granted the utility of empirical (historical) studies. The distinction was rather one between seeing, on the one hand, the absolute, eternal economic laws as having their source in ideal types abstracted from events in the world and seeing, on the other hand, those laws as having their source in the transcendental categories of our minds.

In his article on Bohm-Bawerk, Emil Kauder says that "In the Austria of this time, Aristotelianism and ontology took the place of Western empirical skepticism and pragmatism."[2] The Aristotelianism to which he refers is nowhere more explicitly evident than in the methodological works of Carl Menger, the founder of the Austrian school of economics. Of Menger's early intellectual development, Hayek reports that, regrettably, little is known.[3] But we need not be experts on Menger's background in order to know that he

was positively influenced by Aristotle. Menger's *Problems of Economics and Sociology* (better translated as *Investigations into Method*) provides clear evidence. Menger, for instance, says that Aristotle was superior to Plato because Aristotle "was not only a splendid speculative thinker . . . but was also an indefatigable observer."[4]

Hayek affirms the view, disputed by others, that Menger wrote the *Investigations into Method* in response to the total neglect by economists of his *Principles of Economics* (1952b, pp. 538–39). If, in fact, the doctrines of the *Investigations* are not a natural outgrowth of the *Principles,* but only a post hoc apologetic, then it might be argued that in what he actually did in economics (as opposed to what he said later about what he did), Menger owed little to Aristotle. But Hutchison notes that in the footnotes to the *Grundsatze,* Aristotle is one of the most frequently cited authorities (1973, p. 32). Menger's contemporary, Oskar Kraus, claimed in particular that Menger's work had much in common with Aristotle's *Topics* as interpreted by Brentano.[5] So the Aristotelian influence seems to be present throughout Menger's career and not just in his later methodological work.

Menger's debt to Aristotle provides indirect evidence that Menger was a non-Kantian. In addition to the indirect evidence, Kauder has found direct evidence in the Menger library at the Hitotsubashi University in Japan. The library is valuable for settling issues of intellectual influence because of Menger's habit of heavily marking and annotating books that he read. The value of the library collection is somewhat limited, however, because many of Menger's philosophical holdings were retained by his son. In spite of this, Kauder finds evidence, mainly in notes to a history of philosophy text by Uberweg, that Menger "objected to Kant's main idea that the logical concepts (a priori categories) are necessary forms of our mind and have no bearing on the independent existence of reality" (Kauder, 1959, p. 60).

Of Wieser, the second Austrian economist whom I shall consider, Hayek has said: "In him the civilization of Old Austria found its most perfect expression" (1952b, p. 567).[6] That Wieser's intellectual background was conducive to Aristotelianism is indicated by Emil Kauder when he notes that "The Viennese Schottengymnasium, the intellectual nursery of many famous Austrians, including Wieser, required, even after 1918, the students to read Aristotle's metaphysics in the original Greek."[7] Let us examine a paragraph from Wieser on methodology to see whether or not it confirms our expectations of Aristotelian influence:

> The method of economic theory is empirical. It is supported by observation and has but one aim, which is to describe the actual in its entirety, as purely empirical sciences are wont to do. They strive to remain true to nature in every minute detail. But the economist is like an historian unfolding an individual historical course of events or a statistician summarizing a series of

> cases. He endeavors to place before us the typical phenomenon, the typical development, and to eliminate whatever may be subordinate, accidental or individual. (1929, p. 5)

This sounds very Aristotelian in that the pursuit of the "typical phenomenon" seems identical to the pursuit of the essence of what is experienced, i.e., Wieser seems to have an essentialist methodology that differs little from Menger's.[8] Wieser's description of his method as psychological on the pages previous to this passage might lead one to suspect a Kantian influence.[9] But Wieser notes that the designation of his method as psychological "may lead to misunderstanding" (p. 3). In the end, he seems to mean nothing more by it than that we all have a common stock of economic experience upon which we may draw for the ground of our economic theorizing. If methodological comparisons are to be made on the basis of this passage from Wieser, then perhaps the most fruitful one would be the similarity of Wieser's methodology in economics with Weber's in sociology.[10]

Of the founding triumvirate of Austrian economics, Bohm-Bawerk probably was the least concerned with problems of method.[11] In spite of this, Emil Kauder believes himself justified in declaring that Bohm-Bawerk and Menger "were Aristotelians" (1958, p. 414x). He apparently makes this judgment largely on the basis of a study by Oskar Kraus textually comparing Aristotle's theory of imputation with Menger's and Bohm-Bawerk's.[12]

Hayek tells us that Bohm-Bawerk was "the teacher at the university who had the greatest influence on [Ludwig von Mises]" (1973, p. 1245). Since, as we have seen, Bohm-Bawerk was the least preoccupied of the Austrian economists with methodology, this may help to explain why it would have been easier for Mises to strike out in a non-Aristotelian methodological direction than if he had studied primarily under Wieser or Menger. Mises rejected the Aristotelian methodology of the other Austrian economists in order to adopt a Kantian position, as his methodological comments in *Human Action* as well as his remarks in *Epistemological Problems of Economics* and *The Ultimate Foundation of Economic Science* make clear.[13]

The final Austrian economist to be considered is Friedrich von Hayek. When I had an opportunity to ask him for his comments on *Wittgenstein's Vienna*, he mentioned that it did not give enough attention to the importance of Aristotle in the intellectual scene. He noted, for example, that the influence of Aristotle (as opposed to Kant) was greater in the Austrian universities than in the German ones.[14] He did not say, however, that he was himself an Aristotelian. Although in his own early work, there is little direct reference to methodology,[15] his later methodological works evidence an increasing tendency toward the epistemology of Popperian positivism.[16] Popper, who himself studied under Mises in Vienna, was from an early age impressed by Kant and claims that "what still divides me from most contemporary philoso-

phers" is their essentialism (an Aristotelian doctrine).[17] Hayek's own studies under Mises and his intellectual ties to Popper might help to account for his claim that "On the issue of the theory of knowledge, I am probably a Kantian more than anything else" (1975b, p. 8).

Of the five Austrian economists whose epistemological background we have considered, three can be classed as non-Kantians and two as neo-Kantians.

Marginal Utility

In this section, I shall consider the doctrine that is generally considered the Austrian school's main claim to fame: the theory of marginal utility (alternatively called the theory of subjective valuation).[18] Three issues about this theory will be raised. (1) To what extent can non-Kantian or neo-Kantian influence be seen? (2) Does the doctrine of subjective value in economics have any relation to subjectivity in ethics? (3) To what extent did the subjective value doctrine arise out of the late Hapsburg milieu?

I shall begin the discussion of the marginal utility doctrine by taking up the general question considered in the first section of this paper, *viz.*, is the doctrine traceable to neo-Kantian or non-Kantian (largely Aristotelian) influences? Since Carl Menger is the originator of the marginal utility theory, the influences upon him concern us most.[19] Besides circumstantial evidence, such as Bohm-Bawerk's comparison of the marginal utility doctrine with the Copernican revolution, there would appear to be two different sorts of arguments that could be given for a Kantian influence.[20] The first would argue (1) that Menger's milieu was Kantian and (2) that Menger was significantly influenced by his milieu. We have seen in the first section of this article that there are grounds for doubting the first assertion. But more importantly, we have seen that if the first assertion is granted, then there are even stronger grounds for denying the second (i.e., if Menger's milieu was Kantian, then his explicit and outspoken Aristotelianism would indicate an independence from his milieu).

The second sort of argument for a Kantian influence on Menger's development of marginal utility is similar to the first, but is more specific in that it attempts to give the precise sources for a Kantian influence and is more sophisticated in that it takes account of the fact that Menger was, on the surface at least, explicitly an Aristotelian. Spiegel presents the argument in these terms:

> There was . . . in the German speaking countries the strong tradition of the philosophy of Kant's idealism, paralleling and rivaling that of Hegel, an idealism that interpreted the phenomena of the external world as creations of

> the human mind. The intellectual atmosphere generated by Kant's philosophy would foster the development of a subjective theory of value, regardless of whether or not the economist enunciating such a theory was a full-fledged Kantian. Earlier nineteenth-century economic thought in Germany contained a number of hints pointing toward a subjective theory of value, and Menger, unaware as he was of Gossen's complete analysis, which stemmed from Bentham, was influenced by these. (1971, p. 531)

For this argument to work, two assertions would have to be established: (1) that the early German economists who may have influenced Menger, notably Eberhard Friedlander (1799–1869), were themselves influenced by Kantian idealism and (2) that these early German economists (or others who were influenced by Kant) were the sole, or at least the predominate, influences on Menger's development of the marginal utility theory.[21] I cannot comment on the first assertion, but the second is demonstrably false.

In his appendix on "The Measure of Value," Menger begins by saying "As early as Aristotle we find an attempt to discover a measure of the use value of goods and to represent use value as the foundation of exchange value" (1950, pp. 295–96). In this same appendix (p. 296), he also acknowledges the work of Turgot and Condillac. R.S. Howey found that: "Among the authors who wrote on economics and whom Menger remembered he had read early in life are a number—such as J.B. Say, Lauderdale and Condillac—whom other writers subsequently characterized as predecessors of the Marginal Utility School" (1960, p. 26). There are also indications that Menger was influenced by Cournot, but this is still open to debate.[22] Another primary influence is indicated by Kauder:

> In Menger's library I found one author whom Menger forgot to mention in his footnotes. He is Joseph, Ritter von Kudler (1786–1853). Not Menger but Kudler started the value discussion at the University of Vienna, and Kudler's textbook was Menger's primer in economics. (1965, p. 84)

The influence of earlier economists on the development of marginal utility theory may indicate that the theory was developed as much in response to internal problems in the developing economic theory as in response to philosophical problems (whether derived from a Kantian or non-Kantian perspective).[23]

The second issue with which I shall deal in this section of the article is whether or not the doctrine of subjective value in economics has any relation to subjectivity in ethics.[24] In *Wittgenstein's Vienna,* Janik asserts that the "Marginal Utility Theory" is "characteristically Viennese in its emphasis upon the psychological and subjective factors which underlie value" (p. 53). The clear implication is that the theory of marginal utility is related to the

ethical subjectivism discussed in *Wittgenstein's Vienna* as a key to understanding the *Tractatus* could lend further credence to the picture of the Viennese milieu painted in *Wittgenstein's Vienna* and at the same time help to position the Austrian economists as an integral part of the milieu. Unfortunately, there is no very clear connection between the subjective theory of value in economics and subjectivism in ethics.

That Menger understood this is confirmed by Kauder (1965, p. 82), who reports that in handwritten notes, Menger was even more emphatic than in his published works in asserting the separation of economics and ethics. Stigler argues that Menger desired to separate ethics from social science when he notes that: "[Menger's] word for utility—*Bedeutung*—was surely intentionally neutral, but [sic] probably it was chosen for its non-ethical flavor" (1965a, p. 87). Turning to Menger himself for final confirmation, we find him claiming that "economic theory is concerned, not with practical rules for economic activity, but with the conditions under which men engage in provident activity directed to the satisfaction of their needs" (1950, p. 48). This would seem to confirm the value-neutral aspect of Menger's theory by expressing the claim that economics operates under the conditional: "If men act qua economic men, then certain economic laws follow."[25] Thus, there is no necessity for the economist to claim that men always will act qua economic men or that they always should.

It is significant that Menger is not alone among the Austrians in affirming the ethically neutral character of marginal utility theory. For instance, Bohm-Bawerk in his introductory remarks in the chapter entitled "Nature and Origin of Subjective Value" makes use of an illustrative example that does not involve ethical subjectivism (1973, pp. 10–11). In the example, "One man is sitting beside a copiously flowing spring of fine drinking water" and the other is "traveling across the desert" with "one last single cup of water left" (p. 10). The man in the desert and the man by the spring could affirm identical objectivist (naturalistic or deontological) ethical positions without this in any way impairing the effectiveness of the example in illustrating why the one's subjective valuation of a cup of water would be different from the other's.

Let us assume, however, for the sake of argument, that the Austrian economists were not successful in constructing a value-free economics. To the extent that this assumption is plausible, I think that it would then have to be argued that if there are ethical implications, they are of an objectivist kind, not of the subjectivist sort that we would expect from the *Wittgenstein's Vienna* picture of the Austrian milieu. For example to the extent that we can gather Menger's ethical views from comments in the *Principles,* they would seem to point toward an objectivist, naturalistic ethics.[26] To the extent that the "subjective" in the subjective theory of value calls to mind an idiographic approach to man, it is misleading since the Austrian approach is to establish universal laws applicable to all men. Thus, if one were to look for an analo-

gous approach in ethics to this one in economics, one would have to look to those ethics that claimed to derive necessary, universal ethical norms, i.e., to naturalistic or Kantian ethics.

The third and final issue that I shall consider with regard to the marginal utility theory involves the extent, if any, to which it is meaningful or useful to say that the subjective value doctrine arose out of the late Hapsburg Viennese milieu. One fact above all needs to be considered here, *viz.*, that "the subjective value theory is not the distinctive hallmark of the Viennese school. Not only Menger, but also Jevons and Walras, discovered subjective valuation" (Kauder, 1958, p. 419). Thus, the implication of Janik's statement is wrong when he says that Menger's marginal utility theory is "so characteristically Viennese in its emphasis upon the psychological and subjective factors which underlie value" (p. 53). The independent, simultaneous discovery of marginal utility by men from very different cultures indicates that the state of economic science made the time ripe for it, not that any cultural milieu made it more likely. Hayek endorses this conclusion when he says that "[Jevons', Menger's, and Walras's] scientific work seems to me to have sprung entirely from their awareness of the inadequateness of the prevailing body of theory in explaining how the market order in fact operated."[27] This is apparently consistent with what Menger told Wieser about the development of Menger's marginal utility theory:

> Wieser said that Menger told him that he had been drawn to the development of his ideas while a journalist covering market conditions for the *Wiener Zeitung*. At this time he reportedly noted that the prices of goods did not seem to be determined in the manner his study of economics would have led him to believe. As a consequence he came to believe that utility rather than cost controlled the price of a good. (Howey, pp. 24–25)

This account of the development of marginal utility theory is thus in accord with Toulmin's observation that "the problems of science have never been determined by the nature of the world alone, but have arisen always from the fact that, in the field concerned, our ideas about the world are at variance either with nature or with one another" (1972, p. 150). The only real difficulty for our account would arise if we accept Schumpeter's claim that economics after Ricardo became a stagnant and sterile field, remaining so up until the marginalist revolution (1952, pp. 570–71). If this claim is true, then we would be driven to conclude that the time was equally "ripe" for the marginal utility theory for a period of fifty years.[28] But in this case, our account would not be very informative, i.e., what is left of the meaning of *ripeness* in this case? Perhaps we would have to conclude either that economics had ceased to be a science in this fifty-year period or else that it really had not yet become one. These difficulties, however, may be nonexistent if Hayek

is correct in disputing Schumpeter's claim on the sterility of post-Ricardian economics (1973, p. 1). Thus, we may at least tentatively conclude that the invention of marginal utility came more as a result of the internal problems, explanatory ideals, and development of economics as a discipline than as a result of any influences from the late Hapsburg Viennese milieu.[29]

The Austrian Milieu

As was stated at the outset, in this third and final section, I shall attempt to deal with what we can learn from the Austrian economists about the general Viennese milieu. In particular, I shall be concerned with the questions of whether Hapsburg society was indeed stagnating and decadent and whether there was in fact no opportunity for involvement in the world as an alternative to introverted subjectivism. This section will be briefer and more speculative than the previous two, largely because it deals more with what might have been than with what was. In *Wittgenstein's Vienna*, it is claimed that:

> Apart from the 1914 War, there is no knowing how fanatically determined Francis Joseph's successors would have been to protect their absolute power over defense and foreign affairs; so there is no knowing whether under other circumstances, Austria might not have evolved into a constitutional monarchy capable of responding to the political, economic and social demands of the twentieth century. (p. 274)

While it is true that there is no way of knowing with certainty, I nonetheless believe that there are clear indications that Austria was evolving in a positive direction. Seven of these indications are as follows:

1. The recognition of Francis Joseph that he had been around too long (May 1956, vol. 2, p. 815).
2. The cabinet and commission appointments of Menger, Bohm-Bawerk, and Wieser (May 1951, p. 318).
3. The general economic improvement of the empire (Murad, p. 197).
4. The successful monetary reform (Murad, p. 197).
5. Bohm-Bawerk's efforts against government economic subsidies (Sennholz, 1973, p. xi).
6. The existence of an elected assembly and the Emperor's taking a genuine interest in it (Redlich, pp. 306–9).
7. The growing power and influence of the liberal bourgeois (Murad, p. 189).

It is true that in late Hapsburg Austria, there was not a full-fledged consitutional monarchy. But this is not incompatible with continual progressive evolution in a society. It has been said that the only force holding the empire together was the Hapsburgs.[31] For them to have lost control would have meant discord and dissolution. That this is what it did mean was strongly expressed by Churchill: "There is not one of the peoples or provinces that constituted the Empire of the Hapsburgs to whom gaining their independence has not brought the tortures which ancient poets and theologians had reserved for the damned" (p. 18). On the other hand, a combination of relatively autocratic political control with increasing economic freedom and material growth would have permitted the forces of free trade and opportunity for material improvement to have had their natural and gradually increasing pacific and unifying effects.

Those periods are most creative in which there is a clash of ideas and outlooks. Along with an increase in creativity, such atmospheres also reduce certainty and thereby increase psychological strain. It is thus not surprising that many traditionalist dogmatists as well as creative intellectuals (those under the most strain) often view their culture from the inside as being decadent. With our knowledge that a culture did collapse, it is therefore always possible to find voices prior to the collapse to affirm our hindsight view that the culture was "decadent." But cultures do not die just from endogenous factors. They also can be killed by exogenous factors such as invasion and natural catastrophe, e.g., the brief cultural renaissance just before and during Dubcek's rule did not die from internal weakness; it was killed by the Soviet invasion. Similarly, I think that it could be argued that Periclean Athens and Hapsburg Austria collapsed because of external forces. This is only to claim that the cultures were sound enough to continue a creative, progressive evolutionary development indefinitely.[32] It is not to say that over time there would not have been gradual, but fundamental institutional change.

The second issue that must be dealt with in this section is whether or not there was opportunity for involvement in the world as an alternative to introverted subjectivism. The clearest indication that there was such opportunity can perhaps come from the example of the Austrian economics. Through their theoretical and civil service activities, they had a significant impact both in Austria and the world.

If Wittgenstein's generation sought an escape from "the straitjacket of bourgeois society" (Janik and Toulmin, p. 66) there were other ways of doing it than through seeking a more authentic language. At least for Wittgenstein, there was the concrete example of his father who had "escaped" by disobeying his own father, coming to America, returning to create a fortune, and then spending it tastefully. With the counterexample of his father constantly before him, it is impossible that Wittgenstein could have seen (unless through

self-delusion) a necessary connection between business activity and bourgeois vulgarity.

In conclusion, although the evidence presented in this article about the Austrian school of economics does to some extent undermine the picture of a monolithic, unified cultural atmosphere, it does not detract from the *Wittgenstein's Vienna* interpretation of the *Tractatus*. For it may still be that we can only understand Wittgenstein's philosophy by observing with which of the alternative subcultures he took seriously and chose to associate himself with. Thus, to the extent that the Austrian school of economics is indicative of Viennese cultural diversity, it undermines the tendency to view Wittgenstein's ethical and linguistic position as determined by his milieu (a tendency that may be implicitly encouraged by *Wittgenstein's Vienna*).[33] If what has been said in these pages has any validity, then I may conclude that there was more diversity in the milieu and more alternatives in problem choice and problem response than one would gather from *Wittgenstein's Vienna*.

Notes

1. The affirmers include Max Black, *A Companion to Wittgenstein's Tractatus*, pp. 5, 50, 319, 363, 367, and Erik Stenius, *Wittgenstein's Tractatus*, chapter XI. The ignorers include G.E.M. Anscombe, *An Introduction to Wittgenstein's Tractatus*, and Anthony Kenny, *Wittgenstein*. The disputers include W.W. Bartley, *Wittgenstein*, p. 75.

2. Emil Kauder, "Bohm-Bawerk, Eugen von," in Sills, ed., *International Encyclopedia of the Social Sciences*, vol. 2, p. 120. Cf. also Emil Kauder, "The Retarded Acceptance of the Marginal Utility Theory," *Quarterly Journal of Economics* (Nov. 1953): 572–73.

3. F.A. Hayek, "The Place of Menger's *Grundsatze* in the History of Economic Thought," in Hicks and Weber, eds., *Carl Menger and the Austrian School of Economics*, pp. 4–5. Cf. also T.W. Hutchison, "Some Themes from *Investigations into Method*," in Hicks and Weber, eds., p. 15.

4. Carl Menger, *Problems of Economics and Sociology*, pp. 168–69. Cf. also pp. 87, 194, 220–22.

5. William M. Johnston, *The Austrian Mind*, p. 80. Johnston's critically acclaimed history contains several references to the Austrian economists, but must be read with care. Johnston claims, for instance, that "except for Schumpeter and Mises, these theorists slighted mathematics" (p. 85), implying that Ludwig von Mises was sympathetic to the use of mathematics in economics.

6. Hayek's meaning may be clearer if the quote is read in context. In the sentence before the one quoted in the text, Hayek writes that in Wieser's last book, "Where Wieser shakes off the fetters of specialization and disciplinary methods, his unique personality emerges in all its greatness, combining a universal interest in all

fields of culture and art, worldly wisdom and experience, detachment from affairs of the day, sympathy for the fellow man, and freedom from narrow nationalism."

7. Emil Kauder, "Intellectual and Political Roots of the Older Austrian School," p. 420. Recall that in *Wittgenstein's Vienna* (p. 174), it is noted that because of private tutoring, Wittgenstein did not learn Greek.

8. Cf. Friedrich von Wieser, *Social Economics,* p. 5.

9. Kant himself, on the other hand, was at pains to distinguish what he was doing from psychology. Cf. Immanuel Kant, p. 95 (A 54, B 78).

10. That Wieser and Weber must have been familiar with each other's work is indicated by Wesley Claire Mitchell's statement that: "When the new *Grundriss der Sozialokonomie* was planned, Max Weber, who had a leading share in the direction, made it a condition of his own participation that von Wieser should provide the chief section upon economic theory. Reluctantly Wieser consented" (from Mitchell's foreward to the English translation of Wieser's *Social Economics,* p. xi). Rothbard informs us that among Weber's friends was another Austrian economist, Ludwig von Mises (1968, p. 381). Elsewhere, Rothbard notes in passing the connection between the methodology of the early Austrians and the methodology of Weber (1973, p. 332). Also relevant is Lachmann's discussion of the relationship between Menger's methodology and Weber's (1970, pp. 23–26, 55–60). In future work, it may be promising to consider Mitchell's claim that a key influence on Wieser's early decision to pursue economics was the early work of Herbert Spencer (p. ix).

11. Cf. Joseph A. Schumpeter, in Spiegel, ed., *The Development of Economic Thought,* p. 578.

12. A detailed account of Aristotle's theory can be found in Joseph J. Spengler, "Aristotle on Economic Imputation and Related Matters," *Southern Economic Journal* 21 (April 1955): 371–89.

13. Ludwig von Mises, *Human Action,* pp. 35, and 40; *Epistemological Problems of Economics*; and *The Ultimate Foundation of Economic Science.* It is possible that Ludwig may have been influenced in his Kantianism by his brother Richard of the Vienna Circle. Ludwig von Mises' student, Murray Rothbard, implies a connection between the work of the two brothers when he claims that Richard "made a distinguished contribution to probability theory which has important implications for a sound approach to the social sciences" (Rothbard, 1975, p. 9). On the other hand, there are no references to Richard von Mises in Ludwig's magnum opus *Human Action* and the only reference to Ludwig in Richard von Mises' *Logical Positivism* is, to judge from its context, cool, if not disparaging. (Cf. Richard's statement: "It is not worth while to examine the arguments of those who claim that [an application of mathematical methods to economics] is contrary to the 'essence' of economics and to the 'non-measurability' of its objectives, etc." on p. 251.) Of course, the most notable person putting forward such arguments was Ludwig von Mises. According to Rothbard:

> It was pretty clear that the two brothers, who were only two years apart in age, hated each other's guts, both personally and methodologically-ideologically. When Richard's *Positivism* came out, I asked Lu what he thought of the book. Lu drew himself up and said, in no uncertain terms, "I disagreed with that book from the very first sentence until the last." Given this situation, it is doubtful that Lu would ever refer to Richard favorably. I still believe however, that Lu's probability theory,

> particularly seen in the sections on "Class and Case Probability" in *Human Action,* is a brilliant application of Richard's frequentist and objective probability theory to the social sciences. It fits in beautifully with Lu's contention that probability theory can only be applied to events that are homogeneous, random, and available in a close to infinite number of cases, and that such situations do not appear in any part of human action except in those very cases that the subjectivist probability theory always bring up: e.g., lotteries. (Murray Rothbard, correspondence to the author dated February 14, 1985)

14. Expressed in conversation on April 26, 1975, at a St. Louis seminar.

15. For brief comments see: *The Pure Theory of Capital* (1941), p. vii.

16. Hayek's developed methodological position can be found in *The Counter-Revolution of Science* and in the first three chapters of *Studies in Philosophy, Politics and Economics.* In "Degrees of Explanation" in the latter volume, Hayek most clearly adopts a Popperian view. In the preface (which is dedicated to Popper), Hayek explains his debt to his "old friend." Hutchison provides an account of the development of Hayek's methodological views in: "Austrians on Philosophy and Method (since Menger)," pp. 214–19.

17. For Popper as a student of Mises see: William H. Peterson, "Ludwig von Mises," *The Intercollegiate Review* (winter 1973–74): p. 37. For the influence of Kant on Popper see: Popper, "The Autobiography of Karl Popper," in Schilpp, ed., *The Philosophy of Karl Popper,* p. 12. It is not clear to me that by Popper's use of *essentialism,* Menger's methodology would necessarily qualify as essentialist. The Austrian economists, after all, were concerned with the essence of phenomena, not of words, and it is searching for the essence of words that Popper objects to. Thus I am not sure that Popper's antiessentialism condemns Aristotelian essentialism. The relationship between Menger's methodological essentialism and Popper's antiessentialism has been briefly discussed by Hutchison (T.W. Hutchison, "Some Themes from *Investigations into Method,*" in Hicks and Weber, eds., *Carl Menger and the Austrian School of Economics,* p. 18).

18. Cf., Bohm-Bawerk, "The Austrian Economists," in Gherity, ed., *Economic Thought,* p. 285; and Hayek in Spiegel, ed., *The Development of Economic Thought,* p. 532.

19. Although it was Wieser who first introduced the phrase *marginal utility.*

20. Bohm-Bawerk makes the Copernicus comparison in "The Austrian Economists," reprinted in the Gherity volume. Recall that Kant in the *Critique* had claimed that he was offering a change of perspective similar to that suggested by Copernicus [p. 22 (B xvii)].

21. Cf. Emil Kauder, *A History of Marginal Utility Theory,* p. 83: "Menger was especially interested in Eberhard Friedlander's interpretation of value."

22. Cf. Kauder, *A History of Marginal Utility Theory,* pp. 82–83, 90–91; and Howey, *The Rise of the Marginal Utility School. 1870–1889,* pp. 26–27.

23. Cf. Stigler, "The Influence of Events and Policies on Economic Theory," pp. 16–30: "The dominant influence upon the working range of economic theorists is the set of internal values and pressures of the discipline. The subjects for study are posed by the unfolding course of scientific developments."

24. "The doctrine of subjective value" and "the marginal utility theory" are two names for the same thing.

25. Cf. Richard M. Ebeling, "Austrian Economics on the Rise," *Libertarian Forum* (Oct. 1974): p. 4.

26. See, e.g., Menger, *Principles of Economics,* p. 53; and Ludwig von Mises, *Epistemological Problems of Economics,* p. 152.

27. Hayek, "The Place of Menger's *Grundsatze* in the History of Economic Thought," in Hicks and Weber, eds., *Carl Menger and the Austrian School of Economics,* p. 3. Hayek goes on to say (p. 4): "Vienna could not have seemed at the time a likely place from which a major contribution to economic theory could be expected."

28. Ricardo published *Principles of Political Economy and Taxation* in 1817. (Cf. Spiegel, *The Development of Economic Thought,* p. 158.)

29. Cf. Toulmin, *Human Understanding,* Vol. 1, p. 154.

30. E.g., *Wittgenstein's Vienna,* p. 38.

31. On the other hand, we must consider Mises' report "that Menger, Bohm-Bawerk, and Wieser looked with the utmost pessimism upon the political future of the Austrian Empire" (*The Historical Setting of the Austrian School of Economics,* p. 37).

32. Although it is of course explicitly discouraged. (Cf. *Wittgenstein's Vienna,* p. 32.)

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Notes and Replies

Hayek's "The Trend of Economic Thinking"

Bruce J. Caldwell

On March 1, 1933, Friedrich A. von Hayek delivered an inaugural lecture at the London School of Economics. The lecture was published two months later in *Economica* under the title "The Trend of Economic Thinking." In the paper, Hayek despairs over the direction of current "public opinion," which favored increasing state intervention in the economy. He also notes that the concept of planning, then in vogue both in the popular press and among intellectuals in Britian, had its origins in the writings of continental socialists, in particular the German historical school. Though this article is the first published piece in which Hayek discusses such topics as socialism and planning, it has passed virtually unnoticed by scholars of the Socialist Calculation Debate. This would be reason enough for mentioning it. But a closer examination of the article, given what we know of Hayek's subsequent work, reveals it to be an extraordinary document. Hayek touches upon a number of themes in "The Trend of Economic Thinking" that were to engage him for the remainder of his career.

Perhaps most noteworthy is his characterization of the market system. He emphasizes that it is "a highly complicated organism" which takes intense, systematic study to understand (p. 123). He stresses that its institutions emerge "spontaneously," that they are the result of human action but not of conscious human planning (pp. 123, 129, 130). He also notes that attempts to intervene in the market system often bring about unintended results and that usually only those who are trained in economics recognize this subtle point (pp. 122, 123, 128). These points, as well as Hayek's fundamental insight that markets coordinate behavior, can be deciphered in the lengthy passage:

> From the time of Hume and Adam Smith, the effect of every attempt to understand economic phenomena—that is to say, of every theoretical analysis—has been to show that, in large part, the co-ordination of individual efforts has been brought about, and in many cases could only have been

> brought about, by means which nobody wanted or understood, and which in isolation might be regarded as some of the most objectionable features of the system. . . . [Early attempts at analysis] showed that an immensely complicated mechanism existed, worked and solved problems, frequently by means which proved to be the only possible means by which the result could be accomplished, but which could not possibly be the result of deliberate regulation because nobody understood them. Even now, when we begin to understand their working, we discover again and again that necessary functions are discharged by spontaneous institutions. (p. 129)

How does one go about modeling such a system? Hayek advocates the use of an individualistic and "compositive" method, whereby the economist, "by combining elementary conclusions and following up their implications . . . gradually constructs, from the familiar elements, a mental model which aims at reproducing the working of the economic system as a whole" (p. 128). The same methodology is advocated in his later work, "Scientism and the Study of Society." Other themes from his "Scientism" essay are also present. For example, Hayek labels as anthropomorphic the notion that economic institutions must be planned to be functional (p. 130). He also argues that the popular belief in the "inevitability" of the extension of state control is just another "legacy of the belief in historical laws which dominated the thinking of the last two generations" (p. 134).

"The Trend of Economic Thinking" is the first place where Hayek mentions planning, which he explicitly links with socialism. His words are biting.

> I have discussed planning here rather than its older brother socialism, not because I think there is any difference between the two (except for the greater consistency of the latter), but because most of the planners do not yet realize that they are socialists and that, therefore, what the economist has to say with regard to socialism applies also to them. In this sense, there are, of course, very few people left today who are not socialists. (p. 135)

This passage might well be considered the true opening salvo, at least as far as Hayek's contribution is concerned, in the Socialist Calculation Debate. And what a salvo it is! Not only is planning less consistent than socialism, planners do not even recognize the true nature of their ideas.

Hayek discusses the contributions of the classical liberal economists at a number of points. He notes early on that they had recently been interpreted "under the influence of socialistic ideas" as having been insensitive to social suffering: "But, in fact, nothing could be further from the truth. No serious attempt has ever been made to show that the great liberal economists were any less concerned with the welfare of the poorer classes of society than were their successors" (p. 122).

It was but a small step from here to Hayek's later project, undertaken in *Capitalism and the Historians,* in which the premise of social suffering under the transition to industrial capitalism was questioned. Having defended the classicals, Hayek later notes that many were guilty of neglecting the "positive part of their task." They were excellent at pointing out the limits of government interference, but they should also have indicated the proper scope for government action. Hayek's conclusion that "to remedy this deficiency must be one of the main tasks of the future" (p. 134) is prophetic, for much of his later work was dedicated to explicating the role of the government in a liberal democracy.

Those who have read Hayek's piece, "Why I Am Not a Conservative," will find the following sentence from the conclusion of this article very familiar.

> The peculiar historical development which I have sketched has brought it about that the economist frequently finds himself in disagreement in regard to means with those whom he is in agreement with regard to ends; and in agreement in regard to means with those whose views regarding ends are entirely antipathetic to him—men who have never felt the urge to reconstruct the world and who frequently support the forces of stability only for reasons of selfishness. (pp. 136–37)

It may finally be mentioned that Hayek's frequent invocation of the errors of "public opinion" indicates that he considers the direction of popular belief to be a serious matter. He was to respond to this with the publication of *The Road to Serfdom,* his first work intended for mass consumption. Begun as a pamphlet published in 1938, the book ultimately was to reach a much wider readership through a condensation in *Reader's Digest.*

What are we to make of this article? It is tempting, of course, to read it as a blueprint for much of Hayek's subsequent work. One can picture the thirty-four-year-old Tooke Professor, in a flash of insight, sitting down and penning this outline of a program he would follow for the next fifty years.

Despite its romantic appeal, I do not think that such an interpretation can be supported. After all, Hayek was to continue to devote his attention to economic theory for another ten years or so. Nor does he anywhere mention the article as significant. Finally, his description of the coordinating role of markets made no reference to the concept of dispersed and subjectively held knowledge. It was not until three years later, when in the midst of the Calculation Debate Hayek wrote "Economics and Knowledge," that *that* crucial idea began to take form.

"The Trend of Economic Thinking" is not a blueprint. Rather, it is a manifesto and a starting point. It is a manifesto because it is rich in ideas that

are not yet systematically articulated. And it is a starting point because, as Hayek was drawn into the Calculation Debate, he was forced to pay increasing attention to the problems he first mentioned in this article. Rather than a blueprint, "The Trend of Economic Thinking" is probably best viewed as a suitable point of departure for explicating the trend of Hayek's thinking.

Timberlake on the Austrian Theory of Money: A Comment

Murray N. Rothbard

In his interesting and commendable article on the Austrian theory of the value of money, Professor Timberlake grapples seriously with Ludwig von Mises' outstanding work and acknowledges Mises' many penetrating insights.[1] However, Timberlake unfortunately dismisses many of the most important aspects of the theory and, hence, can conclude that Austrian differences with monetarism are largely linguistic or mere practical cautions rather than deep theoretical disagreements. As a result, he can call for strengthening what he clearly considers to be a natural alliance between the two schools of thought.

The Regression Theorem

The *pons asinorum* for every critic of Mises' theory has always been his "regression theorem," of which his critics have failed to grasp the nature and significance. Professor Timberlake is unfortunately no exception, although his dismissal of the problem of the "Austrian circle" solved by Mises is far superior to the standard approach of Patinkin and other neoclassical critics. Patinkin and the neoclassicists, trapped in their own circularity of mutually determining mathematical functions, brusquely charge Mises with making the schoolboy error of confusing demand schedules with the quantity demanded. Timberlake takes a higher ground provided by the important article by William H. Hutt: that money has its own "yield" in psychic terms from being held and therefore being available to make purchases. Timberlake uses this concept to conclude that there is no real difference between money and other goods, since each has its own direct utility and, therefore, there is no unique circularity to the utility of money that theorists need to solve.

Timberlake charges Mises with ambiguity and contradiction, citing passages where Mises clearly recognizes that money is held in cash balances pre-

cisely in order to have it ready for eventual use. In fact, Mises goes further, making it clear that money is held because of the basic uncertainty of the future that also gives rise to entrepreneurship.

What Timberlake fails to realize is that there is no contradiction here: money is indeed useful while it is being held, held to be available for eventual purchases of goods. But money is still different from all other valuable goods. Money has no utility apart from its usefulness in serving as a general medium of exchange, of exchange for other goods and services. Mises knew full well that such exchanges are not instantaneous; money indeed bridges action between the present and the uncertain future. But it is equally true that money has no utility apart from present *or future* purchases of other goods, and that without such utility, no one would hold on to cash balances.

Let me put it another way. All goods except money have no optimal supply. Production of goods and services is a way of reducing the nature-given scarcity of all goods. As consumer goods increase, that scarcity is diminished, and living standards rise. *Ceteris paribus,* an increase in the supply of a consumer good confers a social benefit because scarcity is being alleviated. Neither can the supply of capital goods or productive factors ever be optimal. Again, *ceteris paribus,* the greater the supply of a productive factor or resource, the better, since this means that the supply of consumer goods will rise in the future. Consumer goods are directly useful, and productive factors and resources are indirectly useful in increasing the production of consumer goods. In short, neither the supply of consumer goods nor of productive factors can ever be optimal short of the Garden of Eden of the superabundance of all goods.

But money, or the money-good, is totally different. It is the unique nature of money that its usefulness in facilitating production as a general medium of exchange, while enormous and crucial, *stops* as soon as it is in sufficient supply to be adopted as a general medium by the market. In short, beyond the minimal quantity needed to establish the money-commodity as money in the first place, "the marginal utility to society," if I may use that phrase, of any increased amount of money is zero. Above the minimum, therefore, *any* supply of money is optimal. There is never any social benefit to increasing the quantity of money, for the increase only dilutes the "objective exchange value," or purchasing power, of the money unit. Monetary calculations and contracts are distorted, and the early recipients of the new money, as well as debtors, gain income and wealth at the expense of later recipients and of creditors. In short, increasing the quantity of the money is only a device to benefit some groups in society at the expense of others.[2]

But if money has no use apart from present or future purchase of goods and, therefore, any quantity of money is optimal, we are left with the problem of the Austrian circle. Bread, milk, and TV sets have utilities of their own and consumers evaluate their uses; their utility is therefore logically evaluated

prior to considering their price. Their utility can explain their value. But what of "dollars"? How can the marginal utility of dollars explain their value or purchasing power, when that utility could not exist (i.e., no one would purchase or hold dollars) unless those dollars had a *previous* purchasing power, a previous value, on the market?[3] But how then can utility explain value in the case of money? In contrast to all other goods and services, money would have no utility to hold in cash balance unless it had already enjoyed a previous existence and a purchasing power as money. The problem of the Austrian circle is a very powerful one, and it is precisely because of this power that other Austrian theorists before Mises despaired of solving it.

Mises' pathbreaking regression theorem solved the problem by engaging in what would later be called a "period analysis" when performed by D.H. Robertson. The Austrian circle can be solved, first, by realizing that there is a temporal dimension to the circle. The value, or purchasing power, of money in day n is determined by the demand for money to hold in day n, which in turn is determined by the marginal utility of money in day n.[4] But the circle appears when we realize that the demand for money in day n is completely dependent on the existence of the purchasing power of money in day n-1. But that purchasing power is in turn determined by the demand for money in day n-1, which in turn could not exist unless money had a purchasing power in day n-2. And so on we go, backward in time. But is not this regression infinite and, therefore, no solution at all? No, because it stops logically the day before the money-commodity became a medium of exchange. In short, it stops on the last day the money-commodity continued to be a simple nonmoney-commodity demanded for its direct use in barter. Or, in short, the demand for money on day 1 (the first day of its use as a medium of exchange) is determined by the existence of a purchasing power of the commodity in its last day in barter, day 0. Hence, the current value of money is fully explained, its historical dimension regressing logically until the money-commodity emerged out of barter, and, therefore, its last determinants are its supply and demand under barter.

The Austrian circle has now been surmounted, and the value of money, as in other goods, is reduced back ultimately to its utility and the stock available. Furthermore, the important conclusion of the regression analysis is that no money, and no money-unit, can ever emerge except through this process of beginning as a useful nonmonetary commodity in barter. Money *must* begin as a useful commodity in a market economy of barter. Otherwise, it could not have had a preexisting purchasing power so that people can evaluate and hold money.[5] Unfortunately, once a commodity is established as money, paper or bank deposits can begin as representations of, and redeemable in, genuine commodity money, but eventually the government can cut these claims loose from their original commodity moorings and the tokens can then continue indefinitely, although disastrously, as money.

The Index Number Problem

One crucial difference between monetarists and Austrians is that the former believe that the supposed neutrality of money means that a price level exists and can be analyzed and measured, apart from relative prices—in short, that micro can be strictly segregated from macro. In comparing and contrasting the views of Ludwig von Mises and Irving Fisher (the father of monetarism and still its clearest and most profound thinker), Professor Timberlake states that Fisher, like Mises, acknowledged the nonneutrality of money, but only *in the short run*. The crucial point is that Fisher believed that in long-run equilibria, money is neutral, and, like all good neoclassicists, Fisher, as a theorist, was interested only in the long run. It is this alleged long-run neutrality that permits the monetarists, from Irving Fisher to Milton Friedman with his egregious "helicopter effect," to act as if money is neutral to relative prices and to the structure of production.

Mises' view, in contrast, is very different. He demonstrates that change in the money supply has important nonneutral effects on the "real" economy, in both short run and long. Money enters the system, not by helicopters showering an equiproportional increase on one and all, but at specific nodal points in the economy. An increase in paper money or bank credit, for example, will first increase the cash balances of government or bank, and then ripple out, in step-by-step micro fashion, from one set of cash balances to another, from government to defense contractor or from bank to debtor. In doing so, the distribution of money assets and incomes, as well as relative prices, will change permanently, in long run as well as short. In addition, some of the "short-run" effects will have dire economic consequences even if temporary, particularly the intervention by bank credit expansion into market signals of saving and interest rates, leading inevitably to a Mises-Hayek business cycle. As a result, there can be no separation between micro and macro. None of this is understood by the monetarists.

Hence, there is no price level apart from relative prices; and a change in price level will inevitably be attached to changes in relative prices.[6] And if there is no price level, it *a fortiori* cannot be measured. Timberlake points out that Mises indeed talks of the "objective exchange value of money," but he charges that Mises' refusal to believe that it cannot be measured is tied in with his alleged error of conflating value with subjective utility. But Mises is correct here as well, since it makes no sense to try to measure an aggregate or average price level that has different objective and subjective meanings to every individual.

Take, for example, Fisher's attempt to arrive at a scientific index of the price level. Contrary to Timberlake, the problems here are not simply practical, but deeply fundamental and substantive. When "scientific" statisticians arrive at an index of price level inflation, for example, how do they combine the thousands of individual price indices into one aggregate price level figure?

The alleged solution of assigning fixed weights in accordance with aggregate physical purchases in a given base year cannot work. Of what relevance is the fixed physical purchase weights of the legendary blue-collar Dayton, Ohio housewife with 2.2 children to any of us who are not in that category? I will wager that the Dayton housewife purchases very few books per year. My own consumption weights, heavily inclined to books, are very different, so that my own inflation index is very different from hers. And by what right, by what "scientific" warrant, does the statistician presume to amalgamate 200 million individual inflation indices into one?

Professor Timberlake tries to hew a middle path between Irving Fisher's "oversold" price index claims and Mises' attacks, but he is evidently largely on Fisher's side, with the Austrian contribution limited to stress on practical difficulties and cautionary warnings about excesses. Yet arguments by Mises that Timberlake, with uncharacteristic brusqueness, dismisses as "whimsical," cut profoundly to the heart of the matter.[7] Thus, Timberlake points to Mises' charge that "all index number systems" are based on "the quite nebulous and illegitimate fiction of an eternal human with invariable valuations." But far from being whimsical, it is all too correct that the amalgamation of individual price indices into one and their continuance over many years involves precisely this indefensible fiction even if only implicitly.

But, Timberlake wonders, if Mises admits that an entity such as the "objective exchange value" of money exists, how can it not be quantifiable and measurable? Contrary to Timberlake, this position is not "paradoxical."[8] He does not realize that there are two traditions in the history of thought on the purchasing power, or objective exchange value, of money. One is that it is in the form of a "level," expressed at least in theory in a single index number; the other, adopted even by Ricardo and later by Mises, is that it is not a single level but an array of prices in all their specificity.[9] The purchasing power of the dollar today is an array of all the myriad alternative goods and services that can be purchased for a dollar. If the price of a hat is $10, of a loaf of bread $1, of a TV set $90, and so on through all the array of available goods and services, then the "purchasing power of the dollar" is: one-tenth of a hat, *or* one loaf of bread, *or* one-ninetieth of a TV set, no more and no less. If one of these prices rises by 10 percent in one year, another rises by 5 percent, a third falls by 4 percent, and so on, there is no scientific way whatever in which all of these disparate changes may be combined to form one aggregate or average index number of change.[10]

Methodology and Mathematics

Throughout his article, Professor Timberlake uses the term *methodological* as a synonym for *trivial* and the reverse of *important* and *substantive*. But the correct usage depends on one's view of methodology in economics and

the disciplines of human action. To Mises, and to the present author, methodology is of crucial substantive importance, because some methodologies can be shown to be correct and others incorrect. In particular, Mises' economics is consciously grounded in what he has termed praxeology, which he deems to be the only correct methodology for economic theory. Praxeology grounds economic theory on a handful of self-evident and apodictically true axioms and then develops the logical (and, hence, absolutely true) implications from those axioms. Economic theory is the set of such true implications, which the applied economist, or economic historian of the contemporary or past scene, uses to try to explain the complexity of historical events. Since, contrary to the positivist method, economic theory need not and cannot be "tested" by empirical facts, the integrity and truth value of economics rests upon keeping its axioms and premises true and unsullied. Deliberately introducing false assumptions and premises into the theory, whether in the name of "simplification" or for any other reason, is fatal to both the veracity and the usefulness of economic theory. Yet, Professor Timberlake, in the positivist mode, asserts that it is proper and legitimate to make "the assumption of monetary neutrality and the specification of cardinal utilities," even though these assumptions are admittedly untrue, because they are "simplifications that clarify the analysis by showing it unadorned."[11] But, by doing so, he unwittingly succeeds only in introducing grave falsehood into economic theory, a falsehood that can only yield false and misleading conclusions. Thus, contrary to Professor Timberlake, methodology *is* substance.

Let us examine, for example, Professor Timberlake's exposition of marginal utility, where he asserts that utility may properly be treated *as if* it were cardinal. We take note of the fact that the doctrine of cardinal utility has long been the major "scientific" argument for the progressive income tax. For this reason alone, it ought to be rejected out of hand. However, let us confine ourselves to Timberlake's seemingly noncontroversial exposition. Thus, in his appendix on "The Equilibrium Value for the Marginal Utility of Money," Timberlake begins with the unexceptionable statement that "money exchanges for these [all other] goods and services at market prices until a typical individual maximizes his utility for money and goods relative to their prices."[12] But in his next sentence, he adds, "That is," in equilibrium "the marginal utility of money relative to the price of money equals the marginal utility of goods relative to the price of goods," a proposition that he proceeds to embody in the equation:

$$\frac{MU_m}{P_m} = \frac{MU_r}{P_r}$$

where *r* includes all goods other than money. As Timberlake recognizes, the *r* boldly amalgamates the prices and marginal utilities of all goods into *one*

mythical good via the price level construction, which we have seen to be illegitimate.

But this is scarcely the only problem with Timberlake's formulation. The major problem is that the sentence beginning "That is" does not follow at all; there is a vast and illegitimate leap from the first sentence to the second. For the fact that in equilibrium every individual has reached his maximum utility point for each good or for money in no way implies Timberlake's standard neoclassical conclusion about equal ratios of marginal utility to price.

The crucial point is that utility cannot be used in any ratio or fraction. Utility is not cardinal but strictly ordinal, a nonmeasurable ranking among goods and services on a person's ordinal value scale. The ranking is of the order "first, second, third, fourth, etc." and therefore cannot be added to, multiplied, or equalized, a point that would be made stronger if the ranking were in letters, rather than in misleading numbers, and thereby seen to be strictly lexicographic (*A, B, C,* etc.), which no one could claim to be subject to measurement. Standard micro texts state that utility is ordinal rather than cardinal but then quickly proceed to talking about "utils," units of utility which can be added, integrated, differentiated, etc. Contrary to those texts, there are no utils, no one has ever seen a util or will ever see one. Since there are no utils, it makes no sense to talk of a ratio between utils and prices. In fact, ratios must be in the same unit, and there is even no way to speak meaningfully about ratios of apples to oranges or of utils, even if they did exist, to prices.[13]

Epilogue: The "Alliance"

Professor Timberlake concludes his stimulating article by urging us to abjure our "intellectual rent factors or vested interests" and instead cultivate the natural alliance between monetarists and Austrians.[14] But one may question whether or not such a natural alliance exists, either on a theoretical or public policy level. In the field of economic theory, there is no common ground at all, except for the simple propostion that "money matters," i.e., that the supply of money is an important determinant of prices. There is no other commonality of principle, from methodology to analysis. Politically, there tends to be a common devotion to free markets, but, paradoxically enough, in virtually every area *except* money, the subject, after all, of Professor Timberlake's article. In the field of monetary policy, monetarists are devoted to fiat money, central banking, and somewhere between a 3 to 5 percent money rule, i.e., a fixed monetary inflation of 3 to 5 percent per year in order to keep the long-run (though nonexistent) price level constant. Austrians, on the other hand, are devoted to a pure gold standard, 100 percent reserve banking, and the abolition of the central bank—in short, the total separation of money from the state. Since they believe that any supply of money is optimal, Aus-

trians oppose any increase of the money stock beyond the suppy of gold, and they welcome the falling prices that will be brought about by the development of unhampered capitalism. Money is precisely the area where Austrians and monetarists are furthest apart.

Notes

1. Richard H. Timberlake, Jr., "A Critique of Monetarist and Austrian Doctrines on the Utility and Value of Money," *Review of Austrian Economics*, I (1987), 81–96. Mises' theory is, of course, set forth in his *The Theory of Money and Credit* [1912] (4th ed., Indianapolis: Liberty Classics, 1981).

2. There is one exception: when the increased money consists of newly mined gold or other money-commodity. For while an increase of gold confers no *monetary* benefits on society, it *does* increase the amount of gold used in jewelry, dentistry, and other consumer and industrial uses. In short, new gold has the same effect as more of any other good when considered in its consumption or capital, i.e. its *non*monetary, uses. But of course, once money becomes paper or bank deposit, even that saving grace of increasing money ceases to exist.

3. Professor Timberlake repeatedly insists that utility is subjective and that value is objective—price or purchasing power. He charges Mises with error in speaking of value as subjective. Timberlake, "Critique," p. 87. Actually, Timberlake himself has here fallen into the trap of confusing the semantic with the substantive. While one aspect of value is indeed objective (what Mises called "objective exchange value"), utility leads consumers to make subjective *valuations* of goods and services. "Subjective value" is an important Austrian concept of value as *valuation* by consumers.

4. In each day, of course, the purchasing power of money is determined by two factors: its demand and supply (or stock). I am omitting the stock of money in the text for purposes of exposition. For a fuller discussion of the regression theorem, see Murray N. Rothbard, *Man, Economy, and State: A Treatise on Economic Principles* [1962] (Los Angeles: Nash Publishing, 1970), I, 231–37.

5. Professor Timberlake scoffs at this proposition and claims that "fiat paper money" could be "dumped into a primitive barter economy and forced into existence by the impress of legal tender." Timberlake, "Critique," p. 87. But this has never happened in history, while there are many cases (e.g., the mighty Mongolian Empire) where governments, unhampered by the Bill of Rights, have done their best to force a new money upon a people and yet have failed dismally. All currencies in history began as useful commodities on the market of barter, and it was Menger's historical explanation of this universal fact that inspired Mises to demonstrate its ineluctable logic as well.

6. Timberlake believes that Mises' rejection of price level indexes would only carry "practical weight" if it is discovered empirically that relative prices change to a significantly greater degree during inflationary periods than in periods of stable prices. But Mises' point is fundamental and philosophic rather than statistical-empirical. Price level indices are illegitimate in *all* periods if changes in price levels always carry with them systematically *any* changes in relative prices whatever. Timberlake, "Critique," p. 89.

7. Timberlake, "Critique," p. 90.

8. Timberlake, "Critique," p. 88.

9. Thus Viner writes of the major classical economists that "when they speak of the value of money or of the level of prices without explicit qualification, they mean the array of prices, of both commodities and services, in all its particularity and without conscious implication of any kind of statistical average." Jacob Viner, *Studies in the Theory of International Trade* (New York: Harper & Bros., 1937), p. 314. Much of the excellent work by C.Y. Wu hinges on this crucial distinction. C.Y. Wu, *An Outline of International Price Theories* (London: George Routledge & Sons, 1939).

10. For more on the index number fallacy, see Rothbard, *Man, Economy, and State,* II, 737–44. Also see R.S. Padan, "Review of C.M. Walsh's *Measurement of General Exchange Value,*" *Journal of Political Economy* (Sept. 1901), p. 609.

11. Timberlake, "Critique," p. 92.

12. Timberlake, "Critique," p. 93.

13. After engaging in mathematical manipulations of his first, fallacious equation, Timberlake ends with the equation:

$$Mu_m = \frac{MU_r}{P_r^2}$$

In trying to elucidate the economic meaning of the absurd idea that the marginal utility of money is equal to the marginal utility of goods "divided by" (how?) the price level *squared,* Professor Timberlake says, "To visualize this explanation, let the original equilibrium . . . occur when P_r and P_m are both 1." But what in the world can it *mean* to have the price level of goods "equal to 1"? p. 93

14. Timberlake, "Critique," p. 92.

Reply to Comment by Murray N. Rothbard

Richard H. Timberlake, Jr.

Three main issues appear in Professor Rothbard's "Comment," all of which are related to a principal theme.[1] The issues are: (1) the Austrian circle and regression theorem, (2) the difference between money and other economic wealth, and (3) the measurability of economic activities, particularly monetary phenomena. Rothbard begins with the Austrian circle and regression theorem; he then brings in the difference between money and other economic things. His gravest oversight is on this latter point, so I begin this reply with an analysis of the difference between money and other things.

Rothbard observes that I use my reference to W.H. Hutt's classic article, "The Yield from Money Held," to conclude that "there is no real difference between money and other goods, since each has its own direct utility, and therefore there is no unique circularity to the utility of money that theorists need to solve." Rothbard then explains the difference between money and other economic goods. All money is nominal, while all goods are real. Economic resources properly mixed with economic organization can result in greater production of goods and services, and no amount of such production can ever be "optimal"—that is, too much.

"But money," states Rothbard, "is totally different. It is the unique nature of money that its usefulness . . . *stops* as soon as it is in sufficient supply to be adopted as a general medium by the market. . . . There is never any social benefit to increasing the quantity of [nominal] money, for the increase only dilutes the . . . purchasing power of the money unit."

This argument has been expounded often in the past by many well-known economists (John Stuart Mill, for example, in his *Principles,* Book III, chapters 7 and 8). What, indeed, could be more obvious than the fact that money units are all nominal, and that doubling them changes nothing real?

Not only does the word *real* enter here, it must enter or the thought cannot be finished. If money exists and is used as an economic item for making exchanges, it is real as well as nominal. Unlike other real goods, however, the reality of money is conceptual. It can only be appreciated by an intellectual calculation of what the money unit can buy. Everyone makes this cal-

culation intuitively in deciding on how much money he will hold for the interval until his money stock is replenished. However, hardly anyone, most economists included, is aware enough of the existence of real money to bring it into a rational calculable analysis. This oversight manifests itself in remarks such as the ones by Jevons and Wicksell that I cited in my original article. Rothbard's discussion of the difference between nominal money and real goods is in this same vein. It is correct, but it does not even come to grips with the most important feature of money—its real value.

The real quantity, or stock, of money is the total purchasing power, or "objective exchange value," of the nominal quantity. This real quantity is estimable by reference to a price index (another Rothbardian no-no, which I shall discuss shortly). If the nominal quantity of money is fixed and real production increases by 10 percent so that prices generally fall by, say, 10 percent, then the real quantity of money is 10 percent greater than it was. It increases because all of the great complex of economic resources increases the real wealth and income of society by 10 percent. Included in this bounty are the fruits of the money industry. Indeed, the money-producing industry in a fully free market system would usually contribute to the real increase in total product by refining and economizing the payments system. If it did, the resources in this industry would have realized their appropriate marginal returns. In any event, holders of money wealth would enjoy a return on their capital—real money in this case—measured by the rate of decrease in the price level. An appropriate label for this return would be "implicit seigniorage." A money holder would get it by owning and holding money just as he would get a return from a stock certificate by owning and holding it.

This return, however, is not the end of the story. Money (as Hutt emphasized and as both Mises and Fisher sensed but did not fully explain) yields an implicit return to the holder regardless of who gets the seigniorage. Even if the monetary system is buffeted by inflation and hyperinflation, it has much more utility for making exchanges than bartering devices that would have to be used in its absence. That is, even if the money unit constantly suffers from a depreciation of its real value by excessive issues of its nominal quantity, it is abandoned only reluctantly—only when its cost in terms of price level depreciation overcomes its implicit yield rate as an economizing wealth item.

My conclusion here was not, as Rothbard asserts, that "there is no real difference between [nominal] money and other goods." It did not concern nominal money at all. Rather, the conclusion is that real money can be, should be, and must be treated analytically like all other economic wealth. To cite again the classic elegance of W.H. Hutt: "[*Real*] money assets are subject to the same laws of value as other scarce things and are equally productive in all intelligible senses." If each dollar has real value, people who own the dollars ascribe to them utility. If all the dollars have some total utility, successive dollars owned have declining marginal utility and enter into the

individual's calculation of whether he will hold dollars or get rid of them by purchasing other kinds of wealth. (See again the corrected version of my appendix to the original article at the end of this "Reply.")

This line of reasoning leads to the conclusion that a regression theorem is no more necessary for real money than it is for real automobiles. Do I, for example, get utility from my real 1965 Chrysler 300 because Carl Benz invented a real automobile in 1886? No more so do I get utility from my real dollar because my grandfather in 1886 used a gold Eagle to buy my grandmother an engagement ring. Carl Menger correctly inferred the evolution of a commodity money from commodity barter. That development, however, in no way affects the utility of the paper money in use today.[2] Modern day paper money is accepted by the public because of the coercive power of the state to enforce legal tender.[3] However, we as individuals determine its value—the *terms* on which we accept it—from an estimation of its transactional utility to us in conjunction with the number of units of it in our possession. The utility schedule of the real units is what is important to us. Once the reality of nominal money is recognized, the "Austrian circle" (which argues that the value and utility of money are isolated in an indeterminate tautology) disappears. If an Austrian circle is required for money it is also necessary for every other real good.

Behind these arguments on the real value of money and its utility lie the concepts of the price level and the price index as contrivances made to measure the price level. Rothbard objects to both. Such contentiousness, however, cannot be limited to prices, but must be extended to the averages for all collections of data. If one accepts Rothbard's view, grade point averages for a college student do not mean anything. How can one add a grade in, say, economics to a grade in calculus and to another grade in history, divide by three and come up with anything meaningful? Economics, calculus, and history are not summable. Furthermore, the various university administrators who peruse these grades have different perceptions about what they signify. So what can they mean? To a "pure" Austrian economist, nothing.

The same criticisms of statistical measures could be made about baseball batting averages, stock market values, and weather reports. In fact, in almost any walk of life, statistical measures of central tendency bring meaningful sense into random data. Market prices are not an exception. A burgeoning money supply makes most money prices rise. Austrian economists recognize the general rise in money prices as well as anyone (as I noted in volume 1 of the *Review of Austrian Economics,* pp. 89–90). To insist that the somewhat uneven rise of prices has different significance to different observers, all of whom may have somewhat different innate utility patterns, is a trivial argument. It is reminiscent of young boys who are so concerned about the rules of the game that they never play the game.

Worse yet, the categorical refusal to admit a price index as a measuring

device is to say that the value of the money unit is indeterminate and cannot be measured.[4] It could be anything depending on the utility that each individual has for it. The same argument could be made for the "value" of a jar of peanut butter. Suppose the market price for such an item is $1.29. To someone who likes peanut butter, this price is cheap. To someone else, a price of $1.29 may be barely acceptable. Therefore, this price and all other prices are meaningless if they must be married to the "subjective significance" attached to them by individual preferences. Any constraint or principle that applies to a real money unit must perforce apply to any other real wealth item.

The most valuable return from a reasonably well chosen price index construction is its derivative use in measuring the value of money. The jar of peanut butter has an explicit money value. So do thousands of other economic goods and services. To say that one cannot get from these prices a determinant measure of the value of the money unit is vain perfectionism. It places Austrian economic analysis into a straitjacket from which it is unable to respond to the many pernicious violations of its principles that occur ubiquitously in everyday affairs.

All averages can be used devilishly, but this trait is no case against them. Every manmade device and most of nature's can be judged on the same grounds. Obviously, an average sacrifices particulars in order to emphasize a central tendency. It has both costs and benefits, and it must be used in a way that maximizes its benefits while recognizing its costs.

Near the end of his "Comment," Professor Rothbard delivers a revealing passage that reflects what seems to be his overall theme—a holier-than-thou norm for Austrian economic theory. Economic theory, he writes, derives from the pure logic of "true" behavioral axioms. It "is the set of such true implications [from these axioms]. . . . Since, contrary to the positivist method, economic theory need not and cannot be 'tested' by empirical facts [!], the integrity and truth value of economics rests upon keeping its axioms and premises true and unsullied."

Such a position invites scorn and ridicule from critics. (Who said those opinions are "axioms"?) It is also defeatist. It relegates Austrian economics to an ineffectual and largely ignored debating exercise and thereby renders it practically useless in a world going collectivist. Surely, a set of principles and doctrines as powerful as those developed by the Austrian school can afford to come down and slug it out with all comers on any grounds they wish. In doing so, Austrians should accept any allies available who have the same fundamental concern for a system of rules in which individual rights and actions are dominant and inviolate. All the monetarists I know hold such principles as firmly as Austrians.

Notes

1. Murray N. Rothbard,"Timberlake on the Austrian Theory of Money: A Comment," in this volume.

2. Perhaps one can argue that if Benz had not invented the real automobile, no one would have had the cultural capital required to impute utility to today's automobile, and likewise with money. This kind of inference is, however, untestable. It only confirms that money *originally* had to be a commodity.

3. This argument by no means supports or excuses the state for improperly and immorally entering into the production of money. Rather, the recognition that real money is real economic wealth, subject to economizing by means of real resources, argues for its complete privatization. If money were not of this nature—if it were a special case, the argument for privatization would be less compelling.

4. Rothbard and all other Austrian economists, however, *do* implicitly make such evaluations—for example, his last sentence in the quote in the third paragraph of this article.

Appendix: The Path to Static Equilibrium for Holdings of Money and Goods

This analysis assumes an economy that uses a nominal money of some simple form, say, paper currency. In the beginning, its real value is constant. That is, the price level as estimated by a price index is not changing, and everyone expects that it will remain as is.

This economy also produces and consumes goods and services, all of which have declining marginal utilities to the households and business firms (H and BF) that own them. Indeed, if all marginal utilities did not decline at some point, everyone would specialize his wealth holdings. He would own the first unit of whatever gave him the most utility; but if his marginal utilities for all goods and services were all increasing, he would acquire more of this "premium" good until he exhausted his income. Different people, however, might well have differing views on the item that had premium utility. So all would not specialize their purchases on the same thing. (This aside is to show by way of casual observation that, in a society of human beings whose patterns of ownership include many diverse composites of wealth items, marginal utilities *must* decline.)

Money units are exchanged in markets for all goods and services and thereby give rise to a pattern of relative prices. Every H and BF, in order to maximize utilities from purchasing goods with dollars of income, acquires goods and spends money until the last incremental utilities of the goods and services purchased relative to their prices equal the marginal utility of the last nominal money unit held relative to its "price." The price of the money unit is its purchasing power in terms of goods and services, and it may be estimated by means of a price index. Since a general rise in prices, no matter how ragged, implies a decline in the purchasing power of money, changes in the price of money are inverse to changes in money prices. That is,

$$p_m = \frac{1}{P},$$

where p_m is the price of money in terms of goods, and P is the average of money prices for all goods and services R.

In equilibrium, as just noted, the marginal utility of money relative to the price of money for each individual equals his marginal utility for goods relative to the prices of goods. That is,

$$\frac{MU_m}{p_m} = \frac{MU_R}{P}. \tag{1}$$

Since the price of goods, P, and the price of money, p_m, are inversely related, equation 1 can be reduced to three terms:

$$\frac{MU_m}{\left(\frac{1}{P}\right)} = \frac{MU_R}{P}, \tag{2}$$

and,

$$MU_m = \frac{MU_R}{P^2} \tag{3}$$

This last equation means that the wealth holder is in money–wealth equilibrium when the marginal utility of the *n*th money unit is equal to the marginal utility of goods divided by the price level *squared*. A "pure" price level inflation directly affects the utility of nominal money, but does not affect either the utility of real money or the utilities of real goods and services.

The value of this analysis lies in its ability to show how static equilibrium between holding money and holding goods develops in a market economy where prices are stable as well as in one that suffers from a monetary inflation. Some average of all money prices specifies a "price" for money. Let this average of money prices be 100 percent of itself, or "100," when monetary circumstances are benign and stable. Likewise, let the price of money also be 100 percent of itself, or "100," at the same time.

Let the government now print up twice the existing stock of paper money and bring this new money into existence by mailing it out as rebates on income taxes, so that everyone has three times as much money as he had originally. The stock of money has tripled, but no additional goods and services are being produced. All H and BF experience excess supplies of nominal money which they try to get rid of for other forms of wealth. In spending their money, they drive prices up to three times their original level, or to "300," and thereby reduce the *schedule* of the marginal utility of money to

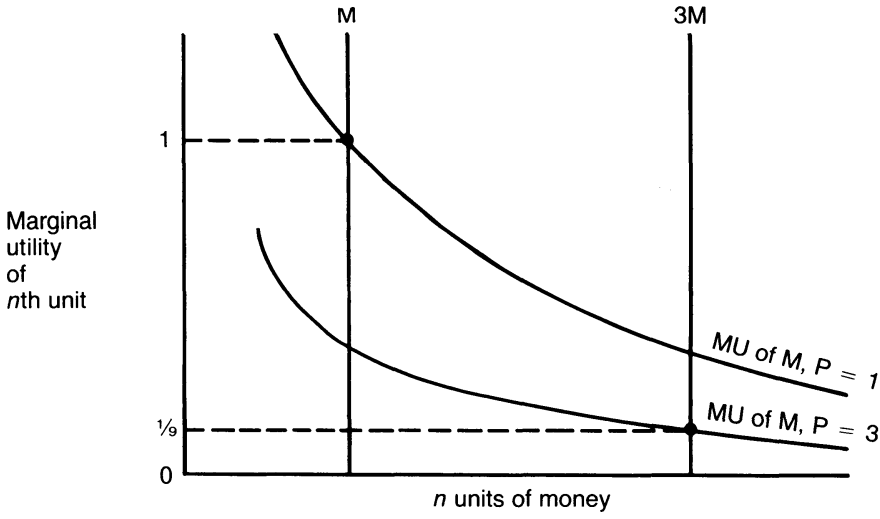

Figure 5. The Marginal Utility of Money

one-third its original value. The utilities of real goods remain constant. (An apple still tastes like an apple no matter what its money price.) However, the equilibrium marginal utility of the last unit of money would be one-ninth of its original value in accordance with equation 3. That is,

$$MU_m = \frac{MU_R}{P^2} = \frac{MU_R}{9}$$

(See figure 5.) If prices went up by a factor of 10, the marginal utility of the last dollar held would be one–one-hundredth of its original value, and so on.

The squared value for the marginal utility of the last dollar held is analogous to air resistance against a hard surface as a function of relative velocity. The resistance increases as the square of the speed because n times as many particles are hitting the surface per second, and each particle is making its impact at n times the original speed. Likewise in my example of inflated money, everyone must hold three times as many units of money, and each utility schedule of money has one-third the value of the original schedule. Equilibrium occurs, therefore, on a utility schedule that has been reduced by a factor of three at a point three times as far out on the money axis.

This simple analysis reflects the nature of monetary utility and its functional dependence on prices. It also implies how and why money is held and can reach an equilibrium with nonmoney wealth even under inflationary or

hyperinflationary conditions. Is it not phenomenal that as the German price level in 1923 burgeoned to a billion times its 1913 level, people continued to use the hyperinflated marks? This behavior dramatizes the efficacy of money, relative to the next-best transactional commodity, for fulfilling monetary functions.

On Yeager's "Why Subjectivism?"

Walter Block

Ordinarily, composing a critique of a published journal article presents no unusual difficulties: one simply takes aim and lets fly. But the case is somewhat different when the writer is also coeditor of the journal in question. By engaging in such criticism, he opens himself up to the objection "If the article is so bad that it needs a rejoinder, why did you allow it to appear in the first place?" Moreover, "Given that you accepted it for publication, don't you have an obligation to defend it from attack, rather than denigrate it yourself?" The implication is that the present writer either has changed his mind about the piece or is guilty of self-contradiction, neither a very satisfactory state of affairs.

In this case, however, there are two possible responses. First, the *Review of Austrian Economics* openly courts opinions specifically *not* in keeping with the views of its editors, provided only that they are at least relevant to Austrianism.[1] Agreement with editorial perspectives, then, is certainly not a condition for publication. Second, just like the "little girl with the curl on her forehead," when "Why Subjectivism?" is good, it is very, very good, but when it is bad, it is horrid.[2] However, in the (subjective) judgment of the editors, the good far outweighs the bad. For these two reasons, the present critique, which will confine itself entirely to the negative aspects of Yeager's valuable contribution, does not imply self-contradiction or fickleness on the part of its author.

What, then, are the problems with Yeager on subjectivism? There are several, beginning for the most part on page 21 (all unidentified citations shall refer to this one article) with the section entitled "I Am More Subjectivist than Thou." I shall consider them roughly in the order they appear in the original article.

The author wishes to thank Murray N. Rothbard, James Buchanan, and two anonymous referees for helpful comments.

Promises

Professor Yeager claims that Murray Rothbard is "not subjectivist enough" (p. 21) with regard to promises. In Rothbard's view, unless and until some actual property has changed hands, a so-called contract is merely a promise or a set of promises.[3] In a libertarian society, which Rothbard is attempting to analyze, force can only be used in response to a prior use of force, such as theft. Since no property can be alienated with a mere promise, a broken contract where no property has changed hands cannot amount to theft. Hence, while a broken promise may be immoral, it is not actionable in a free society. The reason an actual property transfer is so important is that if it occurs, and the other party does not live up to his part of the bargain, it is as if he stole that which he received in the trade.

Yeager sees the insistence on tangible property having changed hands as an illicit deviation from proper subjectivism, which, presumably, would not distinguish between contracts on the basis of whether or not physical property has changed hands.

There are several difficulties with this view. First of all, it fails to take full cognizance of the normative-positive distinction. The appropriate level of subjectivism, presumably, is an issue in positive economics. In sharp contrast, the legal status of a broken promise in a libertarian society is a normative matter. Rothbard, in other words, was engaging in a normative inquiry; he thus must be criticized on that ground if his point is to be refuted.

Second, the theory promulgated by Yeager would not allow us to distinguish between cases where theft had and had not occurred. If no property had been transferred, and the breach was nevertheless actionable, according to subjectivist theory (even the version of it espoused by Yeager), there would be virtually no limit to what the plaintiff could claim. His costs need not be limited to out-of-pocket expenses, but could include what he had hoped to gain from the contract. And what of the broken promise to marry? Yeager's view would appear to be at least compatible with holding the promisor to his word.[4]

Blackmail and Extortion

Yeager quite rightly sees the distinction between blackmail and extortion as the difference between threatening that which one has a right to do (engage in free speech or gossip) and that which one does not have the right to enact (initiate physical force).[5] But he incorrectly interprets this difference as depending upon "the material element in a transaction" (page 21). The distinc-

tion is between invasion or noninvasion, not between material and immaterial. Fraud, for example, is "nonmaterial," but since it amounts to theft or invasion, its threat would be the properly proscribed extortion, not blackmail, which should be legalized, on this account. But is not the threat of "ruining my reputation and my business by spreading vicious but plausible lies" (p. 21) an invasion of the person thus threatened, asks Yeager? No, it is not, because, paradoxically, none of us can ever own the reputations that refer to ourselves. On the contrary, the reputation of each of us consists of the thoughts of other people about us. Since we cannot own the thoughts of other people, we cannot own "our" reputations.[6]

Ultrasubjectivity

In Yeager's categorization of the various schools of thought with regard to subjectivism, there are only three. First are the mainstream *non*subjectivists of the neoclassical or orthodox school. (These are, presumably, the people against whom he directs his magnificently insightful remarks in the bulk of the article, pp. 5–21.) Then comes Yeager, who may be self-defined as a "moderate" or "reasonable" subjectivist (a person who carries subjectivism so far and only so far—to the proper degree, that is). Third are the ultra- or extreme subjectivists, such as Rothbard, Kirzner, and Buchanan, who carry a good thing rather too far.

I should like to suggest an alternative classification:

1. The nonsubjectivists
2. The moderate subjectivists (i.e., Yeager)
3. The Austrian subjectivists (i.e., Rothbard, Kirzner, Buchanan)
4. The ultra- or extreme subjectivists (i.e., Jack Wiseman)[7] G.L.S. Shackle,[8] Ludwig Lachmann,[9] and "hermeneuticians" associated with the market process group located at George Mason University).

Although Yeager does not explicitly make the distinction between the last two categories, I cannot imagine that he would be completely unreceptive to it, as he himself is aware that "even some members of the Austrian school" have equated "nihilism" with an exaggerated form of subjectivism (p. 27). Unfortunately, however, Yeager's failure to make this distinction a more central part of his analysis renders it less incisive than it otherwise might have been, especially with regard to monocausality, the subject to which I now turn my attention.

Monocausality

Austrians do indeed at times embrace a monocausal theory of determination, rather than the more fashionable mainstream view that all economic magnitudes are subject to a system of mutual determination. If Yeager wishes to show why this is wrong, it is incumbent upon him to do more than merely claim that such a view is "too preposterous for *anyone* to believe" (p. 22). It is also singularly unhelpful to maintain that "Austrians cannot really mean what such remarks, taken literally, convey" (p. 28). He cites Rothbard in this context, who gives, in my opinion, a perfectly coherent account of monocausality.[10] Certainly, no evidence is adduced to show that Rothbard did not really mean what he said. Far better than to launch these *ad hominem* attacks would have been to critically analyze the concept itself.

But this Austrian view does not mean that the "realities of nature, science, and technology have *nothing* to do with determining prices and interest rates" (p. 22, emphasis in original). On the contrary, as Yeager himself later seems to grant to the Austrians, "physical reality counts only *through* people's subjective perceptions of it" (p. 22, emphasis in original). In contrast, it is only the ultrasubjectivists, category D, not the Austrians, category C, who speak almost as if they wish to "banish the influence of objective reality" (p. 22).

Pure Time Preference Theory of Interest

In Yeager's view, the Austrian time preference theory of interest is a monocausal one. This is particularly unfortunate, he states, in view of the fact that the productivity of capital, or investment, also determines the interest rate. But there are several drawbacks in this perspective. Rothbard gives an example where the interest rate remains the same, even though physical productivity rises. He argues that rising productivity in the physical sense does not imply that it will rise in value terms.[11] Yeager replies that he is referring to "well-chosen" or "wisely selected" (p. 24) improvements, not to all changes that enhance physical productivity. This is a valid response, but it is somewhat tangential to Rothbard's point, which is that the interest rate pertains to the price spread between the different levels in the structure of production, and that this will be invariant (only in Evenly Rotating Economy [ERE] of course) to the value of production.

Further, why the invidious distinction between the factors of production? When the marginal revenue product of land or labor changes, we do not say that this has any necessary implications for interest rate alterations; rather, it is commonly held that this only impinges on land rentals and wages. Why then, when the marginal efficiency of capital changes, do we not analyze this

in terms of the rental price of the relevant machines? Roger Garrison said in a brilliant refutation of one version of the Fisher-inspired time preference plus productivity of capital theory of interest rate determination, "all rates are not rates of interest."[12] In like manner, we can assert that not all changes in productivity, even "skillfully chosen ones" (p. 24), are changes in the interest rate. Yeager sees the interest rates as the price of something or other: "whatever it is that the interest rate is the price of . . . the thing whose price is the interest rate" (p. 20).[13] Perhaps this explains the Fisher-inspired seizing upon of capital as the thing of which the interest race can be the price. In sharp contrast, however, exponents of the pure time preference theory see the interest rate, not as a price of anything in particular, but rather as a praxeological concept which indicates that man acts.[14]

Even if we accept the importance of the value productivity of a capital good, why does the price of the capital good not rise, in equilibrium, to absorb all future returns without any money left over for interest payments? The reason, for the Austrians, is the primordial fact of time preference. The point is that, given Yeager's productivity theory, one would expect that the price of machinery would be bid up to fully equal the sum, that is, the *non*-discounted value, of the expected future income stream.

In short, without time preference, there is no reason why, say, a machine with expected future rents, or marginal productivities, of $10,000 per year and a life of ten years should not be priced at $100,000! Without time preference, marginal productivity will be fully reflected in rents, and rents would be the sum of expected future returns (or rents) without discount. Hence, there would be no return on the capitalist's investment.

And what of a pure consumer society, one without any production at all? It would still have a loan market, with a time-preference–created interest rate, which, by stipulation, could not possibly have anything to do with productivity of capital. Therefore, it must be conceded that time preference is sufficient to establish the interest rate.[15]

I cannot conclude the discussion of this topic without commenting on Yeager's statement "Full dress argument for purely subjective value and interest theory and for unidirectional causality appears rarely in print, probably because such notions are not defensible" (pp. 22–23). Apart from being needlessly pejorative, this statement is exceedingly strange in view of the fact that he immediately goes on to cite literally several dozen instances where such views do indeed appear in print (p. 23)!

Different Goods

Next, Yeager criticizes Austrians for insisting "that goods that people consider different from each other are indeed different goods, no matter how

closely they resemble each other physically" (p. 23). He urges Austrians to give up their contention "that when a manufacturer sells essentially the same good under different labels at different prices, he is nevertheless not practicing price discrimination" (p. 23). But this will not do at all. The key word, here, is *essentially.* In whose mind is the determination of sameness to be made? The Austrians answer "In the mind of the economic actor," and this would appear to make good sense. Consider the case of the "pet rock." Here was a case of an identical good (identical to the garden variety of rock which can be found underfoot) if ever there was one. Yet, because of insightful entrepreneurial and marketing skill, the purveyors of this item were actually able to sell it to the public for a price. From the Austrian vantage point, such an occurrence is easily explicable: the purchasers of the item saw a relevant difference between the "domesticated" and "wild" versions of rock. How, then, can Yeager explain this phenomenon?

Of relevance to the preceding interest rate discussion is the classical case of ice in summer versus ice in winter. Surely, no more physically identical goods can be imagined. Yet it is of the utmost importance that account be taken of the different evaluations placed on them by actual market participants. At stake is no less than the claim of a negative rate of interest.[16] Is this "excessive . . . or question begging?" (p. 23). Hardly. And yet it must readily be admitted that such a tack is indeed "likely to repel mainstream economists" (p. 23). However, despite Yeager's concern, this is not a subject that deserves serious consideration in a scholarly publication. The avowed purpose of Austrian economics, and of all other schools of thought as well, is to discern the truth, let the chips fall where they may. Austrians, as scientists, must "follow their star," wherever it leads them, even if this is likely to repel economists mired in orthodoxy.

Alternative Costs

Yeager next takes up the cudgels against Coase and Buchanan, who define alterative costs in terms of the next best course of action forgone by the decisionmaker. He posits a "counter example," in which the next best course of action differs from the first best in only a trivial manner, the color of the lampshades in a restaurant (p. 24). Driving the point home, Yeager challenges, "How far from identical to the chosen course of action must the next best alternative be to count as a distinct alternative?" (p. 25).

What kind of answer does Yeager expect? Surely, he would be unsatisfied with the rejoinder that the chosen and alternative courses of action must differ by 2.347 units if they are to be counted as distinct. "Units of what?" is the logical response to that. The only answer consistent with Austrian subjectivism (the third category) is that it is up to the individual evaluator. For

most people, on most occasions, a restaurant identical in every other respect except the color of the lampshades would not be considered an alternative cost. But for some people, under special circumstances, it might be. So this is no counterexample at all.

One does not like to harp on this point, but Yeager's treatment of this topic is marred by his attempt to discredit Buchanan's motivation for taking the stance he does (pp. 17–18). It is of course conceivable that Buchanan was led to his views of alternative costs out of political considerations (an attempt to undermine the case for central planning). But Yeager offers not a single shred of evidence for this "conjecture," and until he does, it is improper to make this accusation. Further, even if it were true that Buchanan's views were politically motivated, this is still irrelevant to their truth. That is the basic fallacy of the *argumentum ad hominem.*

In an aside, Yeager mentions some "compatible though not identical doubts" (p. 25) about Austrian subjectivist theories of alternative cost, expressed by Robert Nozick.[17] Since he does not go into details, we shall content ourselves by merely mentioning that this critique has already been answered in the literature.[18]

Implications of Cost

Yeager next takes Buchanan to task for three of his six choice-bound implications of alternative cost. They are as follows:

1. Most important, cost must be borne exclusively by the decisionmaker; it is not possible for cost to be shifted to or imposed on others.
2. Cost is subjective; it exists in the mind of the decisionmaker and nowhere else.
5. Cost cannot be measured by someone other that the decisionmaker because there is no way that subjective experience can be directly observed.[19]

With regard to numbers 1 and 2, Yeager forcefully asserts that costs can indeed "be imposed on others in quite ordinary senses of those words" (p. 25). But that is the exact difficulty. Yes, in ordinary language, costs can be imposed on other people, but alternative costs are precisely *not* the typical usage of the words. The point is that there is an equivocation here. Buchanan is correct in maintaining that costs in the sense of alternative costs (the next best opportunity forgone by the economic actor) *cannot* be imposed on other people. How on earth could they be? They consist merely of contrary-to-fact conditionals. Says the economic actor, in effect, to himself: "If I hadn't spent

my money on *A*, I could have had *B*." How could *B* possibly impose anything on anyone else, when *B* does not even exist, apart from being a figment of the economic actor's imagination? Yeager, too, is correct in asserting that costs in the ordinary sense of the word can indeed be imposed on other people (such as the examples he gives on p. 25). But just because there is truth in this claim, it by no means follows that Buchanan is mistaken. Both statements are consistent with the facts and, thus, Yeager's version of the truth completely fails to overturn Buchanan's.

In like manner, Yeager offers some important and valid insights in his criticism of Buchanan's statement 5. But again, his critique fails utterly. No one, least of all Buchanan, denies that money costs are important and useful, nor that they can be estimated. Buchanan has never to my knowledge urged that we throw out cost accounting, nor denied "the vital role it plays in conveying information" (p. 26). The point is that statement 5 refers, not to money costs, but to alternative or opportunity costs, as any even halfway sympathetic reading of Buchanan would make clear. So it is not so much that Yeager's insights are incorrect as they are beside the point. And again I must object to Yeager's gratuitous attribution to Buchanan, in this case, that he is being subversive to the truth "in a good cause" (p. 26).

Quantifying Benefits and Costs in Good Faith

Like the first two points considered, this final one refers to a normative, not a positive, issue. Here, Yeager offers the view that "when some decision or other *has* to be made" (p. 26, emphasis added) about a dam, airport, or subway, that we should not "ramble on about how imponderable everything is," but rather "try in good faith to quantify benefits and costs" (p. 26). First of all, it is by no means true that such decisions *have* to be made. It is indisputable that they have indeed been made in the past, and the likelihood is that this pattern shall long continue, but there is no necessity for this. Decision making is a product of choice, and choice is the result of thinking. Possibly, one day people's thinking will change, and goods of this sort will be created voluntarily, in the complete absence of eminent domain legislation.[20] Certainly, Yeager's assumption of the inexorability of this sort of decision making is unlikely to change matters. Second, even assuming that eminent domain will always exist, it does not at all follow that "we" should cooperate. As moral agents, it behooves us *not* to cooperate with the evil of forcing people to give up their property against their will. By providing a scientific patina to the claim that benefits and costs can be nonarbitrarily measured, or even estimated, economists only strengthen the moral and intellectual case for denigrating private property rights.

Notes

1. See Murray N. Rothbard and Walter Block, "Introductory Editorial," *Review of Austrian Economics,* Vol. 1, pp. xi–xiii.

2. Leland Yeager, "Why Subjectivism," *Review of Austrian Economics,* Vol. I, pp. 5–31.

3. Murray N. Rothbard, *Man, Economy and State* (Princeton, N.J.: Van Nostrand, 1962, pp. 153–54).

4. States Murray N. Rothbard in *The Ethics of Liberty* (Atlantic Highlands, N.J. Humanities Press, 1982, p. 134):

> Suppose that A promises to marry B; B proceeds to make wedding plans, incurring costs of preparing for the wedding. At the last minute, A changes his or her mind, thereby violating this alleged "contract." What should be the role of a legal enforcing agency in the libertarian society? Logically, the strict believer in the "promise" theory of contracts would have to reason as follows: A voluntarily promised B that he or she would marry the other; this set up the expectation of marriage in the other's mind; *therefore* this contract must be enforced. A must be *forced* to marry B. As far as we know, no one has pushed the promise theory this far.

Perhaps Rothbard is incorrect in the last sentence of this quote.

5. See Walter Block, *Defending the Undefendable* (New York: Fleet Press, 1976); Walter Block, "Trading Money for Silence," *University of Hawaii Law Review,* Vol. 8, No. 1, spring 1986, pp. 57–73; Walter Block and David Gordon, "Blackmail, Extortion and Free Speech: A Reply to Posner, Epstein, Nozick and Lindgren," *Loyola of Los Angeles Law Review,* Vol. 19, No. 1, November 1985; Rothbard, *Ethics of Liberty,* pp. 121–27.

6. See Walter Block, *Defending the Undefendable,* pp. 59–62. States Rothbard, *Ethics of Liberty,* p. 127: "A writes a book; B reviews the book and states that the book is a bad one; the result is an 'injury' to A's reputation and a decline in the sales of the book as well as A's income. Should all unfavorable book reviews therefore be illegal? Yet such are some of the logical implications of the 'property in reputation' argument."

7. Jack Wiseman, "Uncertainty, Costs, and Collectivist Economic Planning," *Economica,* XX, May 1953; Jack Wiseman, "The Theory of Public Utility Price—An Empty Box," *Oxford Economic Papers,* 9, February 1957.

8. G.L.S. Shackle, *Time in Economics* (Amsterdam: North Holland, 1958); G.L.S. Shackle, *Epistemics and Economics* (Cambridge, England: Cambridge University Press, 1972).

9. Ludwig Lachmann, "From Mises to Shackle: An Essay on Austrian Economics and the Kaleidic Society," *Journal of Economic Literature,* XIV, March 1975, p. 55; Ludwig Lachmann, "Reflections on Hayekian Capital Theory," paper delivered at the Allied Social Science Association Meetings in Dallas, Texas (New York: Photocopy, 1975, p. 13), cited in Gerald P. O'Driscoll, Jr., "Spontaneous Order and the Coordination of Economic Activities," in Louis M. Spadaro, ed., *New Directions in Austrian Economics* (Kansas City, Kans.: Sheed Andrews and McMeel, 1978).

10. Rothbard, *Man, Economy and State,* pp. 302–3.

11. See Rothbard, *Man, Economy and State,* pp. 360–64.

12. Roger W. Garrison, "In Defense of the Misesian Theory of Interest," *Journal of Libertarian Studies,* Vol. III, No. 2, Summer 1979, p. 146.

13. For the Austrians, the interest rate is not the price of anything, but rather a *ratio* of two different prices. For example, the interest rate would be equal to the present price of $100 due in three years, divided by the present price of $100 due in four years, minus one.

14. Says Ludwig von Mises:

> Time preference is a categorical requisite of human action. No mode of action can be thought of in which satisfaction within a nearer period of the future is not—other things being equal—preferred to that in a later period. The very act of gratifying a desire implies that gratification at the present instant is preferred to that at a later instant. He who conumes a nonperishable good instead of postponing consumption for an indefinite later moment thereby reveals a higher valuation of present satisfaction as compared with later satisfaction. If he were not to prefer satisfaction in a nearer period of the future than that in a remote period, he would never consume and enjoy. He would not consume today, but he would not consume tomorrow either, as the morrow would confront him with the same alternative. (*Human Action.* Chicago: Regnery, 1966, p. 542)

See also Carl Menger, *Principles of Economics,* trans. Dingwall and Hoselitz (New York: New York University Press, 1981, pp. 152–56).

15. See Rothbard, *Man, Economy and State,* pp. 360–64.

16. Rothbard, *Man, Economy and State,* p. 61; also Walter Block, "The Negative Rate of Interest: Toward a Taxonomic Critique," *Journal of Libertarian Studies,* Vol. 2, No. 2, Summer 1978, pp. 121–24.

17. Robert Nozick, "On Austrian Methodology," *Synthese,* 36, November 1977, pp. 353–92.

18. See Walter Block, "On Robert Nozick's 'On Austrian Methodology'," *Inquiry,* Vol. 23, No. 4, Fall 1980, pp. 427–28.

19. James M. Buchanan, *Cost and Choice: An Inquiry in Economic Theory* (Chicago: Markham, 1969, p. 43).

20. See in this regard Murray N. Rothbard, *Power and Market: Government and the Economy* (Menlo Park, Calif.: Institute for Humane Studies, 1970, pp. 56–57); also, Walter Block, "Free Market Transportation: Denationalizing the Roads," *Journal of Libertarian Studies,* Vol. III, No. 2, Summer 1979, pp. 209–38.

Reply to Comment by Walter Block

Leland B. Yeager

I thank Dr. Block for praising most of my article and attacking only certain points. I need not reply to all his criticisms: the reader can recognize their nature and see how he and I differ without my dragging the discussion out to tedious length. I shall give only a few examples of my reaction.

After saying that "[f]ull-dress argument" for certain indefensible propositions "appears rarely in print," I went on to cite several published assertions. Block sees an inconsistency. He should know the difference between assertion and argument.

Block provides a prime example of trying to talk away price discrimination by interpreting differently priced goods as different goods, period. Doing so tends to forestall potentially fruitful questions, such as how producers of a good may divide their market into segments with different demand elasticities. It illustrates the "Austrian vice"—disposing of substantive issues or reaching ostensibly substantive conclusions by mere verbal maneuvering. Block should be sobered, not gratified, on realizing how many phenomena his brand of Austrian theory renders "explicable." A theory that explains everything (Freudianism or Marxism, perhaps, or all-purpose subjectivism) explains nothing in particular.

I asked whether Murray Rothbard might not have been insufficiently subjectivist, untypically, in his views on extortion, blackmail, and mutual promising. Block reminds us that Rothbard was engaged in normative, not positive, inquiry. Yes, but facts do serve as part of the grounds for normative judgments; and I was questioning, for example, Rothbard's sharp distinction between an extortionist's threat of physical violence, however slight, and his threat of circulating vicious lies. An associated disagreement between Rothbard and Block on the one hand and me on the other concerns the relation between morality and law.

Here we lack space to clear up these disagreements. Suffice it to say that Rothbard and Block try to reach all sorts of specific judgments on the basis of their conception of natural rights, including property rights in particular, all supposedly deduced from the axioms of self-ownership and Lockean

homesteading. This framework incurs suspicion from the counterintuitive judgments that it grinds out on several issues. I work with a broadly utilitarian framework instead. Since utilitarianism is anathema in certain circles, in self-defense I refer readers to my article in *Cato Journal,* Spring/Summer 1985. I do not spurn rights—quite the contrary—but their articulation needs adequate grounding.

Block accuses me, in my discussion of "London" cost concepts, of impugning the motives and moral character of James Buchanan. This was not at all my intention, and I am astonished that Block should think it was. I admire Buchanan and his work. In the challenged passages, I was suggesting that when one inquires into the meaning of odd propositions and odd word usages, it may help to consider the contexts in which they arise and the purposes they serve. Evidently, though, I wrote imprecisely enough to permit Block's misinterpretation. For this failing I offer Professor Buchanan my profound apologies.

And I offer him another apology. Almost from the moment when it was too late to change my article, I realized with horror that I had made a terrible omission. I had somehow forgotten one of the greatest triumphs of subjectivist economics. In his *Public Principles of Public Debt* (Homewood, Ill.: Irwin, 1958) Buchanan showed that the burden of government expenditures can indeed be shifted into the future by deficit financing through issue of bonds. The conventional wisdom among economists (shared even by Ludwig von Mises, as in *Nation, State, and Economy,* pp. 167–68, and *Human Action,* 2nd ed., p. 227) had been unduly materialistic: the burden cannot be shifted through time, since resources are used when they are used. Buchanan exposed the error by recognizing that a burden is something subjectively perceived. Persons who give up current command over resources in exchange for government bonds that they find attractive to buy perceive no burden in doing so. It is in the future that people—in general, people other than the original bond-buyers—will bear the burden of paying taxes to service the debt or losing through its inflationary or outright repudiation.

The story is more complicated than this; but the subjectivist aspect, which Buchanan emphasized, lies at its core. I am especially remorseful about neglecting this contribution in an article in which, although lauding some of Buchanan's other work, I considered a few criticisms relevant.

Saving the Depression: A New Look at World War II

by Mark Skousen

The economic boom accompanying World War II is, as Gene Smiley notes, frequently used by Keynesian economists to demonstrate that high federal deficit spending is a cure for a depression.[1] In support of this thesis, Ross M. Robertson declares:

> From 1935 on . . . it was evident that output and incomes had risen because of net income injections by the government. Had these income-increasing injections been made more vigorously, from mid-1936 to mid-1938, in spite of fears of a rising national debt shared by most conservatives, the American economy would doubtless have bounded ahead much sooner. Anyone unconvinced on this point has only to look at the budget, income, and production figures for the World War II period.[2]

Robertson and other fiscalists point to the fact that gross national product more than doubled during World War II, from $99.7 billion in 1940 to $211.9 billion in 1945. During this same period, industrial production almost doubled, and durables output increased more than two and a half times. Robertson admits that, "To some extent these gains were illusory because prices rose moderately, many consumer durables disappeared from the market, and the quality of available durables and many nondurables declined."[3] Nevertheless, the sharp decline in unemployment was not illusory. There were 8 million unemployed Americans in 1940. By 1943, there were less than a million, and the figure stayed low for the remainder of the war. (For a summary of figures, see table 1 and figure 6.)

The underlying cause of this economic upswing was, according to advocates, a highly expansionary fiscal policy. Government expenditures rose from $14 billion in 1940 to a high of nearly $100 billion by 1944. (See table 2.) Most of the federal spending was war-related. Revenues also rose as the federal government imposed broad-based income taxes on individuals and corporations and an excess profits tax on businesses. The high tax rates were seen by Keynesians as a positive measure to ward off inflationary pressure as

Table 1
GNP, Employment, and Unemployment, 1939–46

	Gross National Product (billion $)	*Employment (millions)*	*Unemployment (millions)*
1939	90.5	45.7	9.5
1940	99.7	47.5	8.1
1941	124.5	50.3	5.6
1942	157.9	53.8	2.7
1943	191.6	54.5	1.1
1944	210.1	54.0	0.7
1945	211.9	52.8	1.0
1946	208.5	55.3	2.3

Source: Series F 47–70, "Gross National Product, by Type of Expenditure, in Current and Constant (1958) Prices: 1929 to 1970." Series D 1–10, "Labor Force and Its Components: 1900 to 1947." *Historical Statistics of the United States, Colonial Times to 1970,* U.S. Department of Commerce, 1975.

the country approached full employment and to divert excessive consumption to aid war production. Nevertheless, revenues did not keep up with expenditures, and the net result was a historic level of red ink. The federal deficit was $6 billion in 1940, rising to $89 billion by 1944.

Monetary Policy

But Washington's fiscal policy was not made in a vacuum. Smiley correctly points out that the monetary policy changed in the early 1940s to accommodate increased war expenditures. The Federal Reserve Board adopted an extremely expansionary policy during this period. As table 3 shows, the stock of money, whether measured in terms of M1 or M2, increased approximately 20 percent a year, basically doubling during the war. Figure 7 illustrates such trends as money in circulation, reserve bank credit, gold reserves, and excess reserves. Bank excess reserves, which were at a high level during the Depression, practically disappeared. The Fed's extremely liberal monetary expansion allowed the growing federal debt to be monetized. Hence, Smiley concludes, "With such an expansionary (or inflationary) monetary policy, economists cannot conclude that it was fiscal policy rather than monetary policy that was the proximate cause of the more rapid recovery."[4]

Smiley expresses skepticism about the ability of fiscal and monetary policy to stimulate higher employment and output during the war, although he does not say why. It is clear, in any case, that government policy greatly altered the structure of production from civilian to military use.

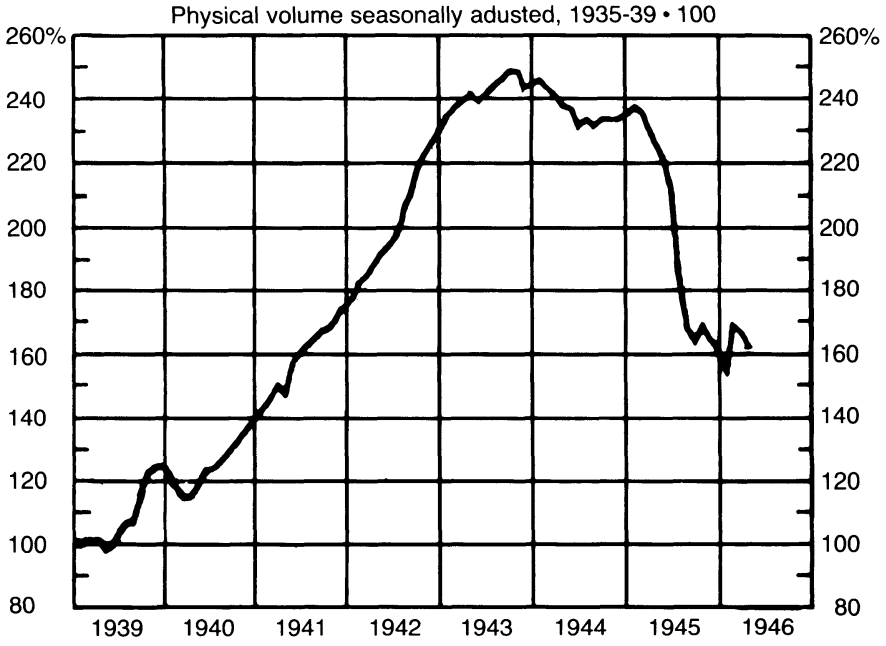

Figure 6. Industrial Production Index, 1939–46

Source: *Federal Reserve Bulletin*, July 1946.
Note: Federal Reserve index. Monthly figures; latest shown are for May 1946.

According to the Austrian business cycle theory (as espoused by Hayek, Mises, and Rothbard), the key to *lasting* recovery from a depression is not to increase government spending or to reinflate the money supply. Either policy can only make matters worse in the long run. Instead, government authorities should get out of the way and allow market forces to reestablish a coordinated production process between investment and consumption. The sooner the government adopts an attitude of noninterference with market processes, the more quickly employment, income, and the general economy will recover and return to normalcy. Generally, Austrian economists advocate decreased government spending, lowered wage rates, and reduced tax rates as the most effective road to economic revival.[5]

The objective of these laissez-faire policies is to encourage a genuine, stable recovery in the capital markets, which Hayek and other Austrian economists see as the chief focal point of most business cycles. A depression is not usually an evenly spread out *general* depression, but in fact is characterized

Table 2
Government Fiscal Policy, 1939–46
(billion $)

	Expenditures	*National Defense Expenditures*	*Revenues*	*Surplus or Deficit*
1939	13.3	1.2	11.1	−2.2
1940	14.0	2.2	13.3	−0.7
1941	24.8	13.8	21.0	−3.8
1942	59.6	49.4	28.2	−31.4
1943	88.6	79.7	44.5	−44.1
1944	96.5	87.4	44.7	−51.8
1945	82.3	73.5	42.5	−39.8
1946	27.0	14.7	32.4	+5.4

Source: Series F 552–565, "Sources and Uses of Gross Saving: 1929 to 1970." Series F 47–70, "Gross National Product." *Historical Statistics.*
Note: The table includes federal, state, and local financing.

Table 3
Monetary Expansion, 1939–46
(billion $)

	M1	*M2*
1939	34.15	49.27
1940	39.65	55.20
1941	46.52	62.51
1942	55.36	71.16
1943	72.24	89.91
1944	85.34	106.82
1945	99.23	126.63
1946	106.46	138.73

Source: Series X 410–419, "Money Stock—Currency, Deposits, Bank Vault Cash, and Gold: 1867 to 1970," *Historical Statistics.*
Note: M1 refers to currency plus demand deposits. M2 is M1 plus time deposits.

by a far greater decline in the capital goods markets compared to the consumer goods industries. Both sectors decline in activity during a depression, but the capital goods industries are hit hardest by far. For example, during 1929–33, personal consumption expenditures declined from $77 billion to $46 billion, a 40 percent decline. But capital investments declined more

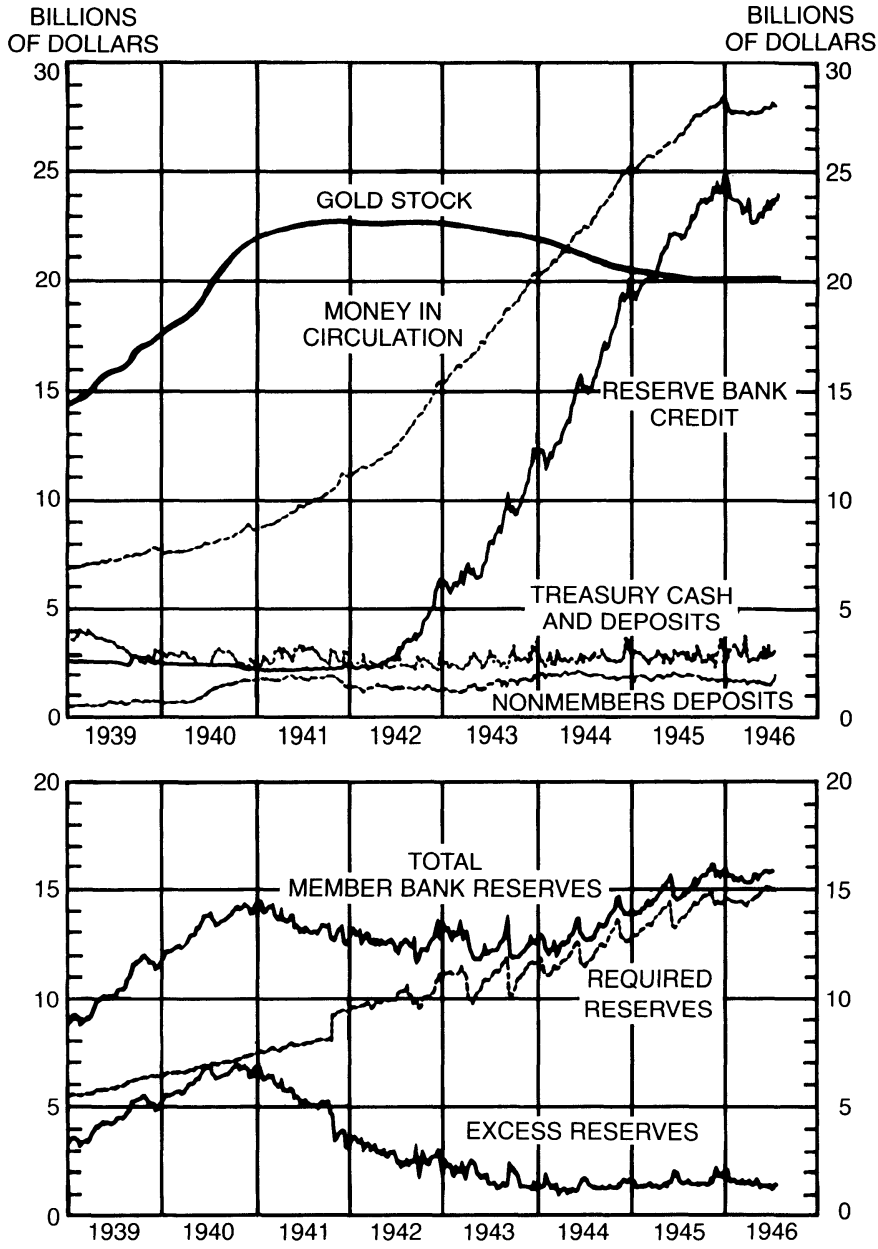

Figure 7. Monetary Trends: Member Bank Reserves and Related Items, 1939–46

Source: *Federal Reserve Bulletin*, August 1946.

Note: Wednesday figures. Latest shown are for July 24, 1946.

steeply, from $16 billion to $1.4 billion, a collapse of over 90 percent. In addition, the decline in employment was far greater in the capital goods industries than in the consumer goods industries.[6]

The key to economic recovery, then, is to reestablish a proper balance between capital investment and consumer spending. An artificial credit boom encourages excessive investment in the capital goods market, so that when the economy heads toward depression, the collapse in the capital goods market can be just as extreme as the boom.

Is there any way to accelerate the recovery in the capital markets besides lowering taxes, adjusting wages, and so on? Rothbard offers a provocative remedy: encourage a genuine increase in the propensity to save! This suggestion will appear as anathema to the Keynesians who envision savings as mere "hoarding" and a negative drain from the economic system. However, Austrian economists generally argue that saving by individuals and corporations is the key to reactivating the capital markets and, hence, opening the door to economic revival.

Referring to the transition to recovery in a depression, Murray Rothbard states:

> The adjustment consists, as we know, of a return to the desired consumption/savings pattern. Less adjustment is needed, however, if time preferences *themselves* change: i.e., if savings increase and consumption relatively declines. In short, what can help a depression is not more consumption, but, on the contrary, less consumption and more *savings* (and, concomitantly, more investment).[7]

The Impact of Higher Savings Rates

Based on the preceding concept, I wish to add an addition to Smiley's analysis by proposing another plausible explanation for the economic recovery during World War II. Increased government spending, assisted by an extremely accommodating monetary policy, does not alone explain the economic recovery in the early 1940s. Instead, I suggest that the World War II economic boom was in large part the result of a third major factor, often ignored by most economists. This factor is the unprecedented rise in personal and business saving rates during 1941–45.[8] The spectacular rise in private savings provided the billions of dollars necessary to support the war, and without this quasi-voluntary stimulus to the capital markets, the world conflict may have been prolonged beyond 1945 and would have had a far more deleterious effect on the U.S. economy. Certainly, interest rates would have been sub-

Table 4
Private Savings in the United States, 1939–46
(billion $)

	Gross Private Savings	*Personal Savings*	*Gross Business Savings*
1939	11.0	2.6	8.4
1940	14.3	3.8	10.5
1941	22.4	11.0	11.4
1942	42.0	27.6	14.5
1943	49.7	33.4	16.3
1944	54.3	37.3	17.1
1945	44.7	29.6	15.1
1946	29.7	15.2	14.5

Source: Series F 552–565, "Sources and Uses of Gross Saving: 1929 to 1970," *Historical Statistics.*

Note: Gross private savings is equal to total household and business saving. Government saving is not included. Household expenditures on consumer durables, except on residential construction, are not treated as savings. The figure is "gross," which includes capital consumption allowances for business and depreciation on personal residences.

Totals do not always add up perfectly due to rounding.

stantially higher, making it much more difficult for the Treasury to finance the war.

What took place in the early 1940s is unmistakable. The rate of savings by both individuals and businesses increased to historically unprecedented levels in the United States. Personal savings climbed from $3.8 billion in 1940 to a high of $37.3 billion in 1944, an incredible tenfold increase in five years. As a percentage of disposable personal income, the figures for personal savings are even more spectacular, increasing from a meager 5 percent in 1940 to almost 26 percent in 1944. (See table 4 and figure 8.) Such high rates of individual saving have not been observed in the United States before or since World War II, and they have only been approached in percentage terms by Japan in the postwar period.

Business savings also increased during the war, although not as much as personal savings did. Gross business savings (which include undistributed corporate profits, corporate inventory adjustments, and capital consumption allowances) increased from $10.5 billion in 1940 to a high of $17.1 billion in 1944. Over all, total household and business savings grew from $14.3 billion in 1940 to $54.3 billion by 1944.

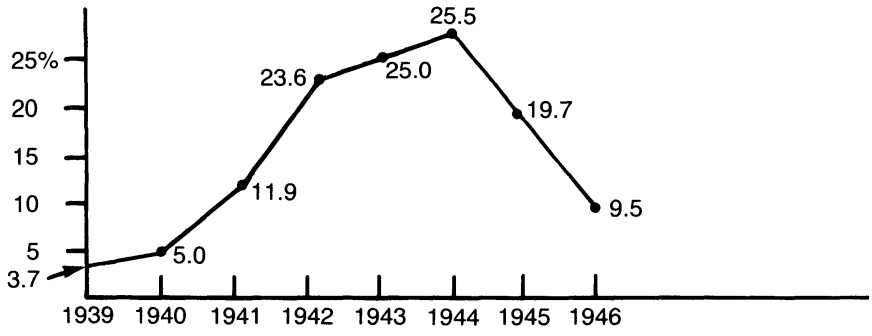

Figure 8. Personal Savings as a Percentage of Disposable Personal Income, 1939–46

Source: Series F 144–162, "Relation of Gross National Product, National Income, and Personal Income and Saving: 1929 to 1970," *Historical Statistics.*

Note: Disposable personal income is after tax.

The Lag in Consumption

At the same time, personal consumption expenditures hardly grew at all during the war. Despite a substantial increase in industrial output, business profits, and personal income, total consumption rose only moderately—from $70.8 billion in 1940 to $119.7 billion by 1945. Because of widespread shortages, spending on consumer durables, such as cars and appliances, actually declined significantly during the war. (See table 5.) In per capita real terms, consumer spending was at a virtual standstill.

Clearly, the United States embarked on a course of sacrifice and abstinence, albeit not always by choice, in an all-out effort to end the conflict. Consumption was restrained, savings rose, and military-industrial production and income increased. Similar results occurred in Britain, where private savings rose from 9 percent of personal income in 1939 to 19 percent by 1943. Consumer spending lagged, and war-related industrial production expanded while private capital formation fell.[9]

An overview of the relationship between private surpluses and government deficits in the United States during the war is summarized in table 6. It demonstrates how significantly the Treasury depended on private savings to finance the war.

Table 5
Personal Consumption Expenditures, 1939–46
(billion $)

	Consumer Spending	*Consumer Durable Spending*
1939	66.8	6.7
1940	70.8	7.8
1941	80.6	9.6
1942	88.5	6.9
1943	99.3	6.6
1944	108.3	6.7
1945	119.7	8.0
1946	143.4	15.8

Source: Series F 262–286, "Personal Income and Outlay: 1929 to 1970." Series F 47–70, "Gross National Product." *Historical Statistics.*

Table 6
Private Surpluses and Federal Deficits, July 1, 1940–June 30, 1945
(billion $)

Federal government:	
Federal expenditures	323
Taxes	133
Deficit	190
Private economy:	
Income after taxes	651
Expenditures	469
Surplus	182
Surplus of state and local government	8
	190

Source: Treasury Bulletin, December 1945.

Austrian Theory of Economic Growth

The Austrian theory of economic growth suggests that a change in time preference in favor of savings and *future* consumption will result, *ceteris paribus,* in an expansion in the capital goods industries, lower interest rates, and, eventually, an increase in income and consumption.

Although several variables (including government spending, monetary inflation, and tax rates) changed during World War II, it is remarkable how economic trends followed this Austrian scenario. Consumer spending was retarded and the rate of savings was expanded. While interest rates did not decline nominally, they remained remarkably stable in the face of massive federal borrowing, monetary expansion, and price inflation. Prime corporate bonds yielded between 2.54 percent and 2.66 percent from 1941 to 1946, practically no change. Yields on long-term U.S. bonds varied little, from 1.95 percent to 2.48 percent. In essence, the Treasury was able to finance the war at 2½ percent without much difficulty. Short-term interest rates (3 months or less) were less than 1 percent. In short, real interest rates may well have declined during the war. They certainly could not have stayed low without the high level of private savings.[10]

According to Austrian theory, increased savings and lower interest rates will, other things being equal, precipitate an expansion of raw commodities and capital-intensive industries. That, indeed, occurred during World War II. New funds from private savings and increased taxes were used to divert labor and industrial production from producing goods and services for civilian use (such as cars, appliances, residential housing, and education) to military materiel and supplies (such as tanks, munitions, and ships), which generally involved capital-intensive heavy industry.

The net effect, as Austrian economists might predict, was an economic boom, primarily in the capital goods industries. Production of machinery quadrupled. Transportation equipment production increased sevenfold. During 1940–44, production of electrical energy jumped from 180 billion kilowatt-hours to 278 billion, a 55 percent increase. Steel output increased from 67 billion tons to 90 billion tons. Aluminum products rose from 573 million pounds to 2,204 million. Increased national manufacturing plan capacity—floor space, tools, and equipment—grew by 30 percent. Billions of dollars were spent on military and technological research and development by government laboratories, universities, and industry.[11] Table 7 shows industrial growth by sector.

Employment in these capital goods industries increased at a rapid pace and brought millions of previously idle workers back to work. Unemployment, which was highest in the capital-producing sectors during the Depression, was sharply reduced to less than 1 million by 1943. Unionization and demands for higher wages, referred to by Smiley, were no longer a deterrent to employment.

It is estimated that half of industrial production went toward the war effort, half toward civilian use. The federal government was directly responsible for a great deal of military production. It spent $30 billion for buildings, tools, and ships, and another $60 billion for food, shelter, clothing, and services for the armed forces. At the end of the war, the United States owned 90

Table 7
Industrial Growth by Selected Sectors, 1939–46
(billion $)

	Agriculture	*Mining*	*Construction*	*Manufacturing*	*Transportation*
1939	6.0	1.6	2.3	18.1	4.6
1940	6.1	1.9	2.6	22.5	5.0
1941	8.4	2.4	4.2	33.2	6.3
1942	12.2	2.6	6.5	45.4	8.6
1943	14.4	2.8	5.5	58.3	10.8
1944	14.5	3.0	4.1	60.3	11.2
1945	15.2	2.8	4.3	52.2	10.5
1946	18.2	3.0	6.5	49.1	10.3

Source: Series F 226–237, "National Income by Industrial Origin, in Current Prices: 1929 to 1970," *Historical Statistics.*

Table 8
Private Investment Activity, 1939–46
(billion $)

	Gross Private Domestic Investment	*Producers' Durable Equipment*
1939	9.3	4.0
1940	13.1	5.3
1941	17.9	6.6
1942	9.8	4.1
1943	5.7	3.7
1944	7.1	5.0
1945	10.6	7.3
1946	30.6	10.2

Source: Series F 47–70, "Gross National Product," *Historical Statistics.*

percent of the synthetic rubber plants, aircraft, magnesium, and ships; 70 percent of aluminum capacity; and 50 percent of machine-tool buildings. The government was responsible for building plants that produced steel, high-octane gasoline, and chemicals as well as 3,800 miles of oil pipelines to carry petroleum to the east coast.[12]

But private industry and individual savings played a pivotal role in the war effort. The war required new industrial plants, alterations in existing plants, and new tools and equipment. Often, these changes were paid for by private companies, taking advantage of rapid depreciation write-offs on their

corporate tax returns and profitable government contracts. Private enterprise was also responsible for fulfilling nongovernment consumer demand throughout the war, and performed an admirable job, considering the bottlenecks and restrictions that were created by rationing, price controls, and other forms of government intervention. Nongovernment GNP grew from $85.7 billion in 1940 to 129.9 billion in 1945, hobbled by a lack of private capital expenditures. Nongovernment industrial output fell by 7 percent. Residential construction and automobile production for personal use were minimal throughout the war. Gross private domestic investment stagnated during the early 1940s, declining from $17.9 billion in 1941 to $7.1 billion in 1944. (See table 8.)

Combined Effect of Increased Savings and Bank Credit

I am not suggesting that personal and business savings and investment were the sole impetus to the economic recovery in the early 1940s. The massive increase in government spending and the money supply also contributed to the economic boom, however artificial and short-term they were compared to the benefits of increased private savings. As Hayek and other Austrians have emphasized, bank credit expansion can have the same short-term effects on the economic structure as an increase in private savings: lower real interest rates and a temporal expansion of the capital-goods industries relative to consumption. In fact, James A. Estey in his book, *Business Cycles,* argues that the use of expanded bank credit to produce armaments in World War II is an example of Hayek's thesis on the effects of monetary inflation, as long as war goods are treated as "capital."[13]

In short, the economic boom in World War II was ignited by two powerful forces working in tandem—an expansionary government policy and a dramatic increase in private savings. Which trend had the greatest effect on economic activity is difficult to ascertain. Suffice it to say that both factors were sufficiently large not to be ignored.

Causes of the Increase in Private Savings

What factors led to the dramatic increase in private savings rates during World War II? As Friedman and Schwartz point out, the increase in income in the early 1940s does not sufficiently explain savings rates exceeding 20 percent.[14] There are several alternative explanations.

First, there was a lack of consumer spending options. Personal income rose substantially in 1941–45, but new consumer durables, such as auto-

mobiles, appliances, and housing, were not generally available. There were also shortages and rationing in food, clothing, and other nondurables. In this sense, individuals had little choice but to engage in a form of "compulsory savings."

Second, the public responded significantly to patriotic appeals to buy U.S. savings bonds and other government securities. Over $156 billion worth of government war bonds were sold to corporations, banks, insurance companies, and individuals. Still, U.S. savings bonds were not the only alternative plan for investors; while approximately 30 to 40 percent of individual savings went toward the buying of government securities, the rest was invested in savings accounts via commercial banks, savings and loan associations, and life insurance cash reserves. All of these private alternatives showed a substantial increase during 1941–45.

Friedman and Schwartz do not feel that the high savings rate was caused entirely by the patriotic appeal to buy war bonds:

> The recurrent bond campaigns with their appeal to patriotism may have contributed also to the high rate of savings, but we are inclined to be skeptical that they had much effect on the amount of savings. If they had an effect, it was probably on the form in which savings were held—more in government securities relative to other assets.[15]

Third, many Americans held the view that prices would decline after the conflict, as had happened in the past. Withholding spendable funds made sense in expectation of lower prices.

When the war came to an end, the purchase of government savings bonds declined, and so did the overall savings rate. Private industry could once again return to the production of consumer goods and services in response to unsuppressed consumer demand. The structure of production shifted back from a command economy to a free economy. The resultant decline in GNP was temporary, however. The postwar decline in individual savings was offset by a massive rise in private capital formation and investment as well as consumer spending. Gross private domestic investment jumped from $10.6 billion in 1945 to $30.6 billion in 1946 in an effort to meet the burgeoning demands for increased consumption.

A Genuine Economic Recovery: Fact or Myth?

Ultimately, the question must be asked, did the war boom amount to a genuine economic recovery? Normally, under peacetime conditions, a rise in business investment and personal savings would lead to an economic recovery and higher standard of living. However, in the case of World War II, a

large part of the money set aside by individuals and business went toward the production of war goods, which had little value when hostilities ceased. In essence, the United States and other nations engaged in massive "capital consumption." As economic historian Robert R. Russel concludes, $230 billion—equal to two years of national income—were spent on "goods and articles shot away, sunk in the sea, or abandoned to rust in the jungles of New Guinea, or paid out in wages and salaries to members of the armed forces for their military services."[16]

Seymour Harris looks at capital consumption in another way.

> In the war period gross private investment amounted to but $29 billion, although gross private savings amounted to $195 billion. The $29 billion were but two-thirds of the business depreciation charges. In other words, the country was living on capital. By using only a small part of gross private savings, business thus enabled government to finance $165 billion of deficits out of private and business savings that otherwise would have been used primarily for private investment.
>
> In 1946–49, the picture was entirely different. Gross private investment at $151 billion exceeded gross private savings by $23 billion, and was three times as great as business depreciation charges. Personal savings accounted for an even smaller percentage of private investment than in 1936–39; and around $23 billion of the private investment were offset by savings (surpluses) of government.[17]

According to national wealth statistics compiled by the U.S. Department of Commerce, there was virtually no change in national wealth in real terms from 1941 to 1945. Based on 1947–49 prices, the nation's wealth amounted to $748.4 billion in 1939. In 1945, it was $763.7 billion. But in per capita terms, the national standard of living appears to have declined.[18]

Certainly, millions of idle workers were put back to work, but hundreds of thousands died or were wounded on the battlefield. Employment during the war was not particularly easy. The average work week rose 20 percent in manufacturing, construction, and mining, and many key employees, especially engineers, had to work weary 14-hour days, 7 days a week. Taxes increase dramatically and permanently. The standard of living declined during this time, despite higher incomes, as Americans gave up many of the pleasures of life. Construction of private housing, automobiles, and appliances came to a standstill. Sugar, coffee, meat, and other food products were often in short supply and, despite price controls and rationing, prices still rose an average 30 percent during the war. Businesspeople were fined and jailed for violating price control and rationing regulations.[19] The only clear winner in the war was the government, which never fully relinquished its power and size after the war. As Randolph Bourne aptly states, "War is the health of the state."

In sum, we must not conclude that war is "good" for the economy or, in a more generic sense, that increased government spending or monetary inflation is the countercyclical cure for a depression. Ultimately, economic malaise can only be permanently overcome by a noninterventionist policy, by freeing the human spirit, and by adopting a long-range time horizon through the virtues of thrift, hard work, entrepreneurship, and capital formation. Regarding the World War II case, Stuart Chase said it best in 1946: "The conclusion here is not that chronic warfare is the cure for chronic depression, but a more hopeful one. People must have a *goal* to stir them to activity; something big to do, to make sacrifices for. Then their latent powers really come out."[20]

Notes

1. Gene Smiley, "Appendix: The Early 1940s Recovery," in his article, "Some Austrian Perspectives on Keynesian Fiscal Policy and the Recovery in the Thirties," *Review of Austrian Economics,* 1:167.

2. Ross M. Robertson, *History of the American Economy,* 3rd ed. (New York: Harcourt Brace Jovanovich, 1973), p. 709.

3. Ibid.

4. Smiley, op. cit., p. 167.

5. On the ill effects of reinflation, see Frederich A. Hayek, *Monetary Theory and the Trade Cycle* (New York: Augustus M. Kelley, 1975 [1933]), pp. 19–23. On increased government spending as a countercyclical measure, see Ludwig von Mises, *Human Action,* 3rd ed. (Chicago: Henry Regnery, 1963), pp. 798–99. On reducing taxes, wages, etc., during a depression, see Murray N. Rothbard, *America's Great Depression,* 3rd ed. (Kansas City, Kans.: Sheed and Ward, 1975), pp. 25–29.

6. Series F 47-70, "Gross National Product," *Historical Statistics of the United States.* For a general discussion of the volatility of the capital markets in a business cycle, see James A. Estey, *Business Cycles,* 2nd ed. (New York: Prentice-Hall, 1950), pp. 228–48.

7. Rothbard, op. cit., p. 24.

8. The only economists I know who have commented on the high rate of savings during World War II are Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867–1960* (Princeton, N.J.: Princeton University Press, 1963), pp. 559–60; and Seymour E. Harris, *The Economics of Mobilization and Inflation* (New York: W.W. Norton, 1951), pp. 162–67.

9. "British White Paper on War Finance," *Federal Reserve Bulletin,* July 1946, pp. 723–48.

10. Sidney Homer, *A History of Interest Rates,* 2nd ed. (Rutgers, N.J.: Rutgers University Press, 1977), pp. 356–57.

11. Robert R. Russel, *A History of the American Economy* (New York: Appleton-Century-Crofts, 1964), p. 578.

12. Ibid., p. 568.

13. Estey, op. cit., pp. 239–40.

14. Friedman and Schwartz, op. cit., p. 559.

15. Ibid. See also "A National Survey of Liquid Assets," *Federal Reserve Bulletin,* July–August 1946.

16. Russel, op. cit., pp. 578–79.

17. Seymour Harris, op. cit., p. 164.

18. Series F 446-469, "National Wealth, by Type of Asset, in 1929 and 1947–49 Prices: 1850 to 1958," *Historical Statistics,* op. cit.

19. A short review of the war burdens in the United States can be found in Harold G. Vatter, *The U.S. Economy in World War II* (New York: Columbia University Press, 1985), pp. 138–42.

20. Stuart Chase, *For This We Fought* (New York: Twentieth Century Fund, 1946), p. 49.

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Book Reviews

The Myth of Free Banking in Scotland

Murray N. Rothbard

"Free Banking" in Scotland

Professor White's *Free Banking in Britain* has already had a substantial impact on the economics profession. The main influence has been exerted by one of the book's major themes: the "wonderful" results of the system of free banking in Scotland, a system that allegedly prevailed from 1716 (or 1727) until suppressed by the Peel Act in 1845.[1] White's Scottish free-banking thesis consists of two crucial propositions. The first is that Scottish banking, in contrast to English, was free during this era; that while the English banking system was dominated by the Bank of England, pyramiding their notes and deposits on top of the liabilities of that central bank, the Scottish system, in stark contrast, was free of the Bank of England. In White's words, Scotland "rather maintained a system of 'each tub on its own bottom.' Each bank held onto its own specie reserves."[2]

The second part of the syllogism is that this free system in some way worked much better than the English. Hence, the triumphant conclusion: that free banking in Scotland was far superior to centrally controlled banking in England. White claims that the salutary effects of free banking in Scotland have been long forgotten, and he raises the hope that current public policy will heed this lesson.

The influence of White's thesis is remarkable considering the paucity of his research and the thinness of his discussion. In a brief book of less than two hundred pages, only 26 are devoted to the Scottish question, and White admits that he relies for facts of Scottish banking almost solely on a few secondary sources.[3] And yet, White's thesis on Scottish banking has been hastily and uncritically accepted by many diverse scholars, including the present writer.[4] This has been particularly unfortunate because, as I shall demon-

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Review of Lawrence H. White, *Free Banking in Britain: Theory, Experience, and Debate, 1800–1845* (Cambridge University Press, 1984).

strate, both parts of Professor White's syllogism are wrong. That is, the Scottish banks were (1) not free—indeed, they too pyramided upon the Bank of England—and (2) not surprisingly, they worked no better than the English banks.

Let me take the second part of Professor White's syllogism first. What is his basis for the conclusion that the Scottish banks worked significantly better than the English banks? Remarkably, there is not a word that they were significantly less inflationary; indeed, there is no attempt to present any data on the money supply, the extent of bank credit, or prices in England and Scotland during this period. White does say that the Scottish banks were marked by greater "cyclical stability," but it turns out that he does not mean that they generated less inflation in booms or less contraction during recessions. By cyclical stability, White means solely that the extent of Scottish bank failures was less than in England. Indeed, this is Professor White's *sole* evidence that Scottish banking worked better than English.

But why should lack of bank failure be a sign of superiority? On the contrary, a dearth of bank failure should rather be treated with suspicion, as witness the drop of bank failures in the United States since the advent of the FDIC. It might indeed mean that the *banks* are doing better, but at the expense of society and the economy faring *worse*. Bank failures are a healthy weapon by which the market keeps bank credit inflation in check; an absence of failure might well mean that that check is doing poorly and that inflation of money and credit is all the more rampant. In any case, a lower rate of bank failure can scarcely be accepted as any sort of evidence for the superiority of a banking system.

In fact, in a book that Professor White acknowledges to be the definitive history of Scottish banking, Professor Sydney Checkland points out that Scottish banks expanded and contracted credit in a lengthy series of boom-bust cycles, in particular in the years surrounding the crises of the 1760s, 1772, 1778, 1793, 1797, 1802–03, 1809–10, 1810–11, 1818–19, 1825–26, 1836–37, 1839, and 1845–47.[5] Apparently, the Scottish banks escaped none of the destabilizing, cycle-generating behavior of their English cousins.

Even if free, then, the Scottish banking system worked no better than central-bank–dominated English banking. But I turn now to Professor White's central thesis on Scottish banking: that it, in contrast to English banking, was free and independent, with each bank resting on its own specie bottom. For Scottish banking to be "free," its banks would have to be independent of central banking, with each redeeming its notes and deposits on demand in its own reserves of gold.

From the beginning, there is one embarrassing and evident fact that Professor White has to cope with: that "free" Scottish banks suspended specie payment when England did, in 1797, and, like England, maintained that suspension until 1821. Free banks are not supposed to be able to, or want to,

suspend specie payment, thereby violating the property rights of their depositors and noteholders, while they themselves are permitted to continue in business and force payment upon *their* debtors.

White professes to be puzzled at this strange action of the Scottish banks. Why, he asks, did they not "remain tied to specie and let their currency float against the Bank of England note?" His puzzlement would vanish if he acknowledged an evident answer: that Scottish banks were *not* free, that they were in no position to pay in specie, and that they pyramided credit on top of the Bank of England.[6] Indeed, the Scottish banks' eagerness for suspension of their contractual obligations to pay in specie might be related to the fact, acknowledged by White, that specie reserves held by the Scottish banks had averaged from 10 to 20 percent in the second half of the eighteenth century, but then had dropped sharply to a range of less than 1 to 3 percent in the first half of the nineteenth. Instead of attributing this scandalous drop to "lower costs of obtaining specie on short notice" or "lower risk of substantial specie outflows," White might realize that suspension meant that the banks would not have to worry very much about specie at all.[7]

Professor Checkland, indeed, presents a far more complete and very different account of the suspension crisis. It began, not in 1797, but four years earlier, in the banking panic that struck on the advent of the war with France. Representatives of two leading Scottish banks immediately went to London, pleading for government intervention to bail them out. The British government promptly complied, issuing Treasury bills to "basically sound" banks, of which £400,000 went to Scotland. This bailout, added to the knowledge that the government stood ready to do more, allayed the banking panic.

When the Scottish banks followed the Bank of England in suspending specie payments in 1797, White correctly notes that the suspension was illegal under Scottish law, adding that it was "curious" that their actions were not challenged in court. Not so curious, if we realize that the suspension obviously had the British government's tacit consent. Emboldened by the suspension, and by the legality of bank issue of notes under £1 after 1800, a swarm of new banks entered the field in Scotland, and Checkland informs us that the circulation of bank paper in Scotland doubled from 1793 to 1803.

Before the Scottish banks suspended payment, all Scottish bank offices were crowded with depositors demanding gold and small-note holders demanding silver in payment. They were treated with contempt and loathing by the bankers, who denounced them as the "lowest and most ignorant classes" of society, presumably for the high crime of wanting their money out of the shaky and inherently bankrupt banking system. Not only the bankers, but even elite merchants from Edinburgh and throughout Scotland complained, in 1764, of "obscure people" demanding cash from the banks, which they then had the effrontery to send to London and profit from the rate of exchange.[8] Particularly interesting, for more than just the twenty-four years

of the British suspension, was the reason the Scottish banks gave for turning to suspension of specie payments. As Checkland summed up, the Scottish banks were "most gravely threatened, for the inhibitions against demanding gold, so carefully nurtured in the customers of Scottish banks, was rapidly breaking down."[9]

Now I come to the nub: that, as a general rule, and not just during the official suspension period, the Scottish banks redeemed in specie *in name only*; that, in substance, depositors and note holders generally could not redeem the banks' liabilities in specie. The reason that the Scottish banks could afford to be outrageously inflationary, i.e. keep their specie reserves at a minimum, is that, in practice, they did not really have to pay.

Thus, Professor Checkland notes that, long before the official suspension, "requests for specie [from the Scottish banks] met with disapproval and almost with charges of disloyalty." And again:

> The Scottish system was one of continuous partial suspension of specie payments. No one really expected to be able to enter a Scots bank . . . with a large holding of notes and receive the equivalent immediately in gold or silver. They expected, rather, an argument, or even a rebuff. At best they would get a little specie and perhaps bills on London. If they made serious trouble, the matter would be noted and they would find the obtaining of credit more difficult in future.[10]

At one point, during the 1750s, a bank war was waged between a cartel of Glasgow banks, which habitually redeemed in London bills rather than specie, and the banks in Edinburgh. The Edinburgh banks set up a private Glasgow banker, Archibald Trotter, with a supply of notes on Glasgow banks, and Trotter demanded that the banks of his city redeem them, as promised, in specie. The Glasgow banks delayed and dragged their feet, until Trotter was forced to file a law suit for damages for "vexatious delay" in honoring his claims. Finally, after four years in court, Trotter won a nominal victory, but could not get the law to force the Glasgow banks to pay up. *A fortiori,* of course, the banks were not shut down or their assets liquidated to pay their wilfully unpaid debts.

As we have seen, the Scottish law of 1765, providing for summary execution of unredeemed bank notes, remained largely a dead letter. Professor Checkland concludes that "this legally impermissible limitation of convertibility, though never mentioned to public inquiries, contributed greatly to Scottish banking success."[11] No doubt. Of one thing we can be certain: this condition definitely contributed to the paucity of bank failures in Scotland.

The less-than-noble tradition of nonredeemability in Scottish banks continued, unsurprisingly, after Britain resumed specie payments in 1821. As the

distinguished economic historian Frank W. Fetter put it, writing about Scotland:

> Even after the resumption of payments in 1821 little coin had circulated; and to a large degree there was a tradition, almost with the force of law, that banks should not be required to redeem their notes in coin. Redemption in London drafts was the usual form of paying noteholders. There was a core of truth in the remark of an anonymous pamphleteer [writing in 1826] "Any southern fool [from south of the Scottish–English border] who had the temerity to ask for a hundred sovereigns, might, if his nerves supported him through the cross examination at the bank counter, think himself in luck to be hunted only to the border.[12]

If gold and silver were scarcely important sources of reserves or of grounding for Scottish bank liabilities, what was? Each bank in Scotland stood not on its own bottom, but on the very source of aid and comfort dear to its English cousins—the Bank of England. As Checkland declares: "the principal and ultimate source of liquidity [of the Scottish banks] lay in London, and, in particular, in the Bank of England."[13]

I conclude that the Scottish banks, in the eighteenth and first half of the nineteenth centuries, were neither free nor superior, and that the thesis to the contrary, recently revived by Professor White, is but a snare and a delusion.

The Free-Banking Theorists Reconsidered

The bulk of *Free Banking in Britain* is taken up, not with a description or analysis of Scottish banking, but with analyzing the free-banking controversies in the famous monetary debates of the two decades leading up to Peel's Act of 1844. The *locus classicus* of discussion of free versus central banking in Europe is the excellent work by Vera C. Smith, *The Rationale of Central Banking*.[14] While Professor White makes a contribution by dealing in somewhat more depth with the British controversialists of the era, he unfortunately takes a giant step backward from Miss Smith in his basic interpretation of the debate. Miss Smith realized that the currency school theorists were hard-money men who saw the evils of bank credit inflation and who tried to eliminate them so that the money supply would as far as possible be equivalent to the commodity standard, gold or silver. On the other hand, she saw that the banking school theorists were inflationists who favored bank credit expansion in accordance with the "needs of trade." More importantly, Miss Smith saw that for both schools of thought, free banking and central banking were contrasting means to arrive at their different goals. As a result, she ana-

lyzes her monetary writers according to an illuminating 2 × 2 grid, with "currency school" and "banking school" on one side and "free banking" and "central banking" on the other.

In *Free Banking in Britain*, on the other hand, Professor White retreats from this important insight, misconceiving and distorting the entire analysis by separating the theorists and writers into three distinct camps, the currency school, banking school, and free-banking school. By doing so, he lumps together analysis and policy conclusions, and he conflates two very distinct schools of free bankers: (1) those who wanted free banking in order to promote monetary inflation and cheap credit and (2) those who, on the contrary, wanted free banking in order to arrive at hard, near-100 percent specie money. The currency school and banking school are basically lumped by White into one group: the pro–central-banking faction. Of the two, White is particularly critical of the currency school, which supposedly all wanted central banks to levy "arbitrary" restrictions on commercial banks. While White disagrees with the pro–central-banking aspects of the banking school, he is clearly sympathetic with their desire to inflate bank credit to supply the "needs of trade." In that way, White ignores the substantial minority of currency school theorists who preferred free banking to central bank control as a way of achieving 100 percent specie money. In addition, he misunderstands the nature of the inner struggles to find a correct monetary position by laissez-faire advocates, and he ignores the vital differences between the two wings of free bankers.

On the currency school, it is true that most currency men believed in 100 percent reserves issued either by a central bank monopoly of note issue or by an outright state bank monopoly. But, as Smith pointed out, the aim of the currency men was to arrive at a money supply equivalent to the genuine free market money of a pure specie commodity (gold or silver). And furthermore, since currency men tended to be laissez-faire advocates distrustful of state action, a substantial minority advocated free banking as a better political alternative for reaching the desired 100 percent gold money than trusting in the benevolence of the state. As Smith notes, Ludwig von Mises was one of those believing that free banking in practice would approximate a 100 percent gold or silver money. Free banking and 100 percent metallic money advocates in the nineteenth century included Henri Cernuschi and Victor Modeste in France, and Otto Hübner in Germany.[15] Mises' approach was very similar to that of Otto Hübner, a leader of the German Free Trade Party. In his multivolume work, *Die Banken* (1854), Hübner states that his ideal preference would have been a state-run monopoly 100 percent specie reserve bank, along the lines of the old Banks of Amsterdam and Hamburg. But the state cannot be trusted. To quote Vera Smith's paraphrase of Hübner's position:

> If it were true that the State could be trusted always only to issue notes to the amount of its specie holdings, a State-controlled note issue would be the best system, but as things were, a far nearer approach to the ideal system was to be expected from free banks, who for reasons of self-interest would aim at the fulfilment of their obligations.[16]

Henri Cernuschi desired 100 percent specie money. He declared that the important question was not monopoly note issue versus free banking, but whether or not bank notes should be issued at all. His answer was no, since "they had the effect of despoiling the holders of metallic money by depreciating its value." All bank notes, all fiduciary media, should be eliminated. An important follower of Cernuschi's in France was Victor Modeste, whom Vera Smith erroneously dismisses as having "the same attitude" as Cernuschi's. Actually, Modeste did not adopt the free-banking policy conclusion of his mentor. In the first place, Modeste was a dedicated libertarian who frankly declared that the state is "the master . . . the obstacle, the enemy" and whose announced goal was to replace all government by "self-government." Like Cernuschi and Mises, Modeste agreed that freely competitive banking was far better than administrative state control or regulation of banks. And like Mises a half-century later (and like most American currency men at the time), Modeste realized that demand deposits, like bank notes beyond 100 percent reserves, are illicit, fraudulent, and inflationary as well as being generators of the business cycle. Demand deposits, like bank notes, constitute "false money." But Modeste's policy conclusion was different. His answer was to point out that "false" demand liabilities that pretend to be but cannot be converted into gold are in reality tantamount to fraud and embezzlement. Modeste concludes that false titles and values, such as false claims to gold under fractional-reserve banking, are at all times

> equivalent to theft; that theft in all its forms everywhere deserves its penalties . . ., that every bank administrator . . . must be warned that to pass as value where there is no value . . . to subscribe to an engagement that cannot be accomplished . . . are criminal acts which should be relieved under the criminal law.[17]

The answer to fraud, then, is not administrative regulation, but prohibition of tort and fraud under general law.[18]

For Great Britain, an important case of currency men not discussed by Smith are the famous laissez-faire advocates of the Manchester school. Hobbled by his artificial categories, Professor White can only react to them in total confusion. Thus, John Benjamin Smith, the powerful president of the

Manchester Chamber of Commerce, reported to the chamber in 1840 that the economic and financial crisis of 1839 had been caused by the Bank of England's contraction, following inexorably upon its own earlier "undue expansion of the currency." Simply because Smith condemned Bank of England policy, White chides Marion Daugherty for putting J.B. Smith into the ranks of the currency school rather than the free bankers. But then, only four pages later, White laments the parliamentary testimony during the same year of Smith and Richard Cobden as revealing "the developing tendency for adherents of laissez-faire, who wished to free the currency from discretionary management, to look not to free banking but to restricting the right of issue to a rigidly rule-bound state bank as the solution." So what were Smith, Cobden, and the Manchesterites? Were they free bankers (p. 71) or—in the same year—currency men (p. 75), or what? But how could they have been currency men, since White has defined the latter as people who want total power to accrue to the Bank of England? White avoids this question by simply not listing Smith or Cobden in his table of currency-banking–free-banking school adherents (p. 135).[19]

White might have avoided confusion if he had not, as in the case of Scottish banking, apparently failed to consult Frank W. Fetter's *Development of British Monetary Orthodoxy,* although the book is indeed listed in his bibliography. Fetter notes that Smith, in his parliamentary testimony, clearly enunciates the currency principle. Smith, he points out, was concerned about the fluctuations of the commercial banks as well as of the Bank of England and flatly declared his own currency school objective: "it is desirable in any change in our existing system to approximate as nearly as possible to the operation of a metallic currency; it is desirable also to divest the plan of all mystery, and to make it so plain and simple that it may be easily understood by all."[20] Smith's proposed solution was the scheme derived from Ricardo, of creating a national bank for purposes of issuing 100 percent reserve bank notes.

The same course was taken, in his testimony, by Richard Cobden, the great leader of the Manchester laissez-faire movement. Attacking the Bank of England and any idea of discretionary control over the currency, whether by the Bank or by private commercial banks, Cobden declared:

> I hold all idea of regulating the currency to be an absurdity; the very terms of regulating the currency and managing the currency I look upon to be an absurdity; the currency should regulate itself; it must be regulated by the trade and commerce of the world; I would neither allow the Bank of England nor any private banks to have what is called the management of the currency. . . . I would never contemplate any remedial measure, which left it to the discretion of individuals to regulate the amount of currency by any principle or standard whatever.[21]

In short, the fervent desire of Richard Cobden, along with other Manchesterians and most other currency school writers, was to remove government or bank manipulation of money altogether and to leave its workings solely to the free-market forces of gold or silver. Whether or not Cobden's proposed solution of a state-run bank was the proper one, no one can deny the fervor of his laissez-faire views or his desire to apply them to the difficult and complex case of money and banking.

Let me now return to Professor White's cherished free-banking writers and to his unfortunate conflation of the very different hard-money and soft-money camps. The currency school and the free bankers were both launched upon the advent of the severe financial crisis of 1825, which, as usual, was preceded by a boom fueled by bank credit. The crisis brought the widespread realization that the simple return to the gold standard, as effected in 1821, was not enough and that something more had to be done to eliminate the instability of the banking system.[22]

Among four leading free-banking advocates of the 1820s and early 1830s—Robert Mushet, Sir John Sinclair, Sir Henry Brooke Parnell, and George Poulett Scrope—Professor White sees little difference. And yet they were split into two very different camps. The earlier writers, Mushet and Parnell, were hard money men. Mushet, a long-time pro–gold-standard "bullionist" and clerk at the Royal Mint, set forth a currency-principle–type of business cycle theory in 1826, pointing out that the Bank of England had generated an inflationary boom, which later had to be reversed into a contractionary depression. Mushet's aim was to arrive at the equivalent of a purely metallic currency, but he believed that free rather than central banking was a better way to achieve it. Once again, White's treatment muddies the waters. While admitting that Mushet took a currency school approach toward purely metallic money, White still chooses to criticize Daugherty for classifying Mushet with the currency school, since he opted for a free- rather than a central-banking method to achieve currency goals (p. 62 n). The more prominent Parnell was also a veteran bullionist writer and Member of Parliament, who took a position very similar to Mushet's.[23]

Sir John Sinclair and George Poulett Scrope, however, were horses of a very different color. White admits that Sinclair was not a pure free-banking man, but he characteristically underplays Sinclair's fervent lifelong views as being concerned with "preventing deflation" and calls Sinclair a "tireless promoter of agricultural interests" (p. 60 and 60 n). In truth, Sinclair, a Scottish nobleman and agriculturist, was, all his life, a determined and fanatical zealot on behalf of monetary inflation and government spending. As soon as the pro–gold-standard, anti–fiat paper Bullion Committee Report was issued in 1810, Sir John wrote to Prime Minister Spencer Perceval urging the government to reprint his own three-volume proinflationist work, *History of the*

Public Revenues of the British (1785–90), as part of the vital task of rebutting the Bullion Committee. "You know my sentiments regarding the importance of paper Circulation," Sinclair wrote the Prime Minister, "which is in fact the basis of our prosperity." In fact, Sinclair's *Observations on the Report of the Bullion Committee,* published in September 1810, was the very first of many pamphlet attacks on the Bullion Report, most of them orchestrated by the British government.

When Britain went back to the gold standard in 1819–21, Sinclair, joining with the proinflationist and pro–fiat money Birmingham school, was one of the most energetic and bitter critics of resumption of specie payments. It is no wonder that Frank Fetter should depict Sinclair's lifelong enthusiasm: "that more money was the answer to all economic problems."[24] It is also no wonder that Sinclair should have admired the Scottish "free" banking system and opposed the currency principle. But one would have thought that Professor White would feel uncomfortable with Sinclair as his ally.

Another of Professor White's dubious heroes is George Poulett Scrope. While Scrope is also characterized as not a pure or mainstream free-banking man, his analysis is taken very seriously by White and is discussed numerous times. And he is mentioned prominently in White's table as a leading free banker. Scrope's inveterate inflationary bent is handled most gently by White: "Like Sinclair, he [Scrope] placed higher priority on combating deflation" (p. 82 n). In fact, Scrope not only battled against the return to the gold standard in 1819–21, he was also the leading theorist of the fortunately small band of writers in Britain who were ardent underconsumptionists and proto-Keynesians. In his *Principles of Political Economy* (written in 1833, the same year as his major pro–free-banking tract), Scrope declared that any decline in consumption in favor of a "general increase in the propensity to save" would necessarily and "proportionately diminish the demand as compared with the supply, and occasion a *general glut*".

Let us now turn to the final stage of the currency school–banking school–free-banking controversy. The financial crisis of 1838–39 touched off an intensified desire to reform the banking system, and the controversy culminated with the Peel Acts of 1844 and 1845.

Take, for example, one of Professor White's major heroes, James William Gilbart. Every historian except White has included Gilbart among the members of the banking school. Why does not Professor White? Despite White's assurance, for example, that the free-banking school was even more fervent than the currency school in attributing the cause of the business cycle to monetary inflation, Gilbart held, typically of the banking school, that bank notes simply expand and contract according to the "wants of trade" and that, therefore, issue of such notes, being matched by the production of goods, could not raise prices. Furthermore, the active causal flow goes from "trade" to prices to the "requirement" for more bank notes to flow into circulation.

Thus said Gilbart: "If there is an increase of trade without an increase of prices, I consider that more notes will be required to circulate that increased quantity of commodities; if there is an increase of commodities and an increase of prices also, of course, you would require a still greater amount of notes."[25] In short, whether prices rise or not, the supply of money must always increase! Putting aside the question of who the "you" is supposed to be in this quote, this is simply rank inflationism of the banking school variety. In fact, of course no increase of money is "required" in either case. The genuine causal chain is the other way round, from increased bank notes to increased prices, and *also* to increased money value of the goods being produced.

Professor White may not be alive to this distinction because he, too, is a follower of the "needs of trade" (or "wants of trade") rationale for bank credit inflation. White's favorable discussion of the needs-of-trade doctrine (pp. 122–26) makes clear that he himself is indeed a variant of banking-school inflationist. Unfortunately, White seems to think all this to be consonant with the "Humean-Ricardian" devotion to a purely metallic currency (p. 124). For one thing, White does not seem to realize that David Hume, in contrast to his banking-school friend Adam Smith, believed in 100 percent specie reserve banking.

While Professor White, in the previous quote from Gilbart, cites his Parliamentary testimony in 1841, he *omits* the crucial interchange between Gilbart and Sir Robert Peel. In his testimony, Gilbart declared not only that country bank notes increase solely in response to the wants of trade and, therefore, that they could never be overissued. He *also* claimed—in keeping with the tenets of the banking school—that even the Bank of England could never overissue notes so long as it only discounted commercial loans! So much for Professor White's claims of Gilbart's alleged devotion to free banking! There followed some fascinating and revealing colloquies between Peel and the alleged free banker (i.e., pro–free-banking, pro–gold-standard) James Gilbart. Peel sharply continued his questioning: "Do you think, then, that the legitimate demands of commerce may always be trusted to, as a safe test of the amount of circulation under all circumstances?" To which Gilbart admitted: "I think they may." (Note: nothing was said about exempting the Bank of England from such trust.)

Peel then asked the critical question. The banking school (followed by Professor White) claimed to be devoted to the gold standard, so that the "needs of trade" justification for bank credit would *not* apply to inconvertible fiat currency. But Peel, suspicious of the banking school's devotion to gold, then asked: In the bank restriction [fiat money] days, "do you think that the legitimate demands of commerce constituted a test that might be safely relied upon?" Gilbart evasively replied: "That is a period of which I have no personal knowledge"—a particularly disingenuous reply from a man who had

written *The History and Principles of Banking* (1834). Indeed, Gilbart proceeded to throw in the towel on the gold standard: "I think the legitimate demands of commerce, even then, would be a sufficient guide to go by." When Peel pressed Gilbart further on that point, the latter began to back and fill, changing and rechanging his views, finally once more falling back on his lack of personal experience during the period.[26]

Peel was certainly right in being suspicious of the banking school's devotion to the gold standard—whether or not Professor White was later to reclassify them as free bankers. In addition to Gilbart's revelations, Gilbart's fellow official at the London & Westminster Bank, J.W. Bosanquet, kept urging bank suspensions of specie payment whenever times became difficult. And in his popular tract of 1844, *On the Regulation of Currencies,* John Fullarton—a banker in India by then retired in England and a key leader of the banking school—gave the game away. Wrote Fullarton:

> And, much as I fear I am disgracing myself by the avowal, I have no hesitation in professing my own adhesion to the decried doctrine of the old Bank Directors of 1810, "that so long as a bank issues its notes only on the discount of *good* bills, at not more than sixty days' date, it cannot go wrong in issuing as many as the public will receive from it.[27]

Fullarton was referring, of course, to the old antibullionist position that so long as any bank, even under an inconvertible currency, sticks to short-term real bills, it cannot cause an inflation or a business-cycle boom. It is no wonder that Peel suspected all opponents of the currency principle to be crypto-Birmingham men.[28]

The only distinguished economist to take up the free-banking cause is another one of Professor White's favorites: Samuel Bailey, who had indeed demolished Ricardian value theory in behalf of subjective utility during the 1820s. Now, in the late 1830s and early 1840s, Bailey entered the lists in behalf of free banking. Unfortunately, Bailey was one of the worst offenders in insisting on the absolute passivity of the British country and joint-stock banks as well as in attacking the very idea that there might be something worrisome about changes in the supply of money. By assuring his readers that competitive banking would always provide a "nice adjustment of the currency to the wants of the people," Bailey overlooked the fundamental Ricardian truth that there is never any social value in increasing the supply of money, as well as the insight that bank credit entails a fraudulent issue of warehouse receipts to nonexistent goods.

Finally, Professor White ruefully admits that when it came to the crunch—the Peel Acts of 1844 and 1845 establishing a Bank of England monopoly of note issue and eliminating the "free" banking system of Scotland—his free-banking heroes were nowhere to be found in opposition. White con-

cedes that their support of Peel's acts was purchased by the grant of cartelization. In short, in exchange for Bank of England monopoly on note issue, the existing English and Scottish banks were "grandfathered" into place; they could keep their existing circulation of notes, while no new competitors were allowed to enter into the lucrative note-issuing business. Thus, White concedes:

> He [Gilbart] was relieved that the [Peel] act did not extinguish the joint-stock banks' right of issue and was frankly pleased with its cartelizing provisions: "Our rights are acknowledged—our privileges are extended—our circulation guaranteed—and we are saved from conflicts with reckless competitors." (p. 79)

Very well. But White avoids asking himself the difficult questions. For example: what kind of a dedicated "free-banking" movement is it that can be so easily bought off by cartel privileges from the state? The answer, which White sidesteps by avoiding the question is precisely the kind of a movement that serves simply as a cloak for the interests of the commercial bankers.

For, with the exception of the older, hard-money free-banking men—such as Mushet (long dead by 1844) and Parnell (who died in the middle of the controversy in 1842)—virtually all of White's free bankers were themselves officials of private commercial banks. Gilbart had been a bank official all his life and had long been manager of the London & Westminster Bank. Bailey was chairman of the Sheffield Banking Company. Consider, for example, the newly founded *Bankers' Magazine,* which White lauds as a crucial organ of free-banking opinion. White laments that a writer in the June 1844 issue of *Bankers' Magazine,* while critical of the currency principle and monopoly issues for the Bank of England, yet approved the Peel Act as a whole for aiding the profits of existing banks by prohibiting all new banks of issue.

And yet, Professor White resists the realization that his entire cherished free-banking movement—at least in its later inflationist "need of trade" manifestation—was simply a special pleading on behalf of the inflationary activities of the commercial banks. Strip away White's conflation of the earlier hard-money free-banking theorists with the later inflationists, and his treasured free-banking movement turns out to be merely special pleaders for bank chicanery and bank credit inflation.

Notes

1. On "wonderful" results, see White, *Free Banking,* p. xiii.
2. Ibid., p. 43.
3. Most of the White book, indeed, is devoted to another question entirely—a

discussion and analysis of free-banking theorists in Britain during the first half of the nineteenth century. I shall deal with that part of his book subsequently.

4. Murray N. Rothbard, *The Mystery of Banking* (New York: Richardson & Snyder, 1983), pp. 185–87. Also see the report on a forthcoming *Journal of Monetary Economics* article by Milton Friedman and Anna Jacobson Schwartz in *Fortune* (March 31, 1986), p. 163. I did have grave preliminary doubts about his Scottish thesis in an unpublished comment on Professor White's paper in 1981, but unfortunately, these doubts did not make their way into the *Mystery of Banking.*

5. Sydney G. Checkland, *Scottish Banking: A History, 1695–1973* (Glasgow: Collins, 1975).

6. In a footnote, Professor White grudgingly hints at this point, while not seeming to realize the grave implications of the facts for his own starry-eyed view of Scottish banking. Note, then, the unacknowledged implications of his hint that London was "Britain's financial centre," that the Scottish banks depended on funds from their correspondent banks and from sales of securities in London, and that Britain was an "optimal currency area." White, *Free Banking,* p. 46 n. 12.

7. White, *Free Banking,* pp. 43–44, n. 9.

8. See Charles A. Malcolm, *The Bank of Scotland, 1695–1945* (Edinburgh: R. & R. Clark, n.d.).

9. Checkland, *Scottish Banking,* p. 221.

10. Checkland, *Scottish Banking,* pp. 184–85.

11. Ibid., p. 186.

12. Frank W. Fetter, *Development of British Monetary Orthodoxy, 1797–1875* (Cambridge, Mass.: Harvard University Press, 1965), p. 122. The anonymous pamphlet was *A Letter to the Right Hon. George Canning* (London, 1826), p. 45. Also see Charles W. Munn, *The Scottish Provincial Banking Companies, 1747–1864* (Edinburgh: John Donald Pubs., 1981), pp. 140ff.

A similar practice was also prevalent at times in the "free-banking" system in the United States. After the "resumption" of 1817, obstacles and intimidation were often the fate of those who tried to ask for specie for their notes. In 1821, the Philadelphia merchant, economist and state Senator Condy Raguet perceptively wrote to David Ricardo:

> You state in your letter that you find it difficult to comprehend why persons who had a right to demand coin from the Banks in payment of their notes, so long forebore to exercise it. This no doubt appears paradoxical to one who resides in a country where an act of parliament was necessary to protect a bank, but the difficulty is easily solved. The whole of our population are either stockholders of banks or in debt to them. It is not in the *interest* of the first to press the banks and the rest are *afraid.* This is the whole secret. An independent man, who was neither a stockholder or debtor, who would have ventured to compel the banks to do justice, would have been persecuted as an enemy of society. (Quoted in Murray N. Rothbard, *The Panic of 1819: Reactions and Policies,* New York: Columbia University Press, 1962, pp. 10–11)

There is unfortunately no record of Ricardo's side of the correspondence.

13. Checkland, *Scottish Banking,* p. 432. Also see S.G. Checkland, "Adam Smith and the Bankers," in A. Skinner and T. Wilson, eds., *Essays on Adam Smith* (Oxford, England: Clarendon Press, 1975), pp. 504–23.

14. Vera C. Smith, *The Rationale of Central Banking* (London: P.S. King &

Sons, 1936). This book was a doctoral dissertation under F.A. Hayek at the London School of Economics, for which Miss Smith made use of Hayek's notes on the subject. See Pedro Schwartz, "Central Bank Monopoly in the History of Economic Thought: a Century of Myopia in England," in P. Salin, ed., *Currency Competition and Monetary Union* (The Hague: Martinus Nijhoff, 1984), pp. 124–25.

15. After quoting favorably Thomas Tooke's famous dictum that "free trade in banking is free trade in swindling," Mises adds:

> However, freedom in the issuance of banknotes would have narrowed down the use of banknotes considerably if it had not entirely suppressed it. It was this idea which Cernuschi advanced in the hearings of the French Banking Inquiry on October 24, 1865: "I believe that what is called freedom of banking would result in a total suppression of banknotes in France. I want to give everybody the right to issue banknotes so that nobody should take banknotes any longer." (Ludwig von Mises, *Human Action: A Treatise on Economics,* 3rd rev. ed., Chicago: Henry Regnery, 1966, p. 446)

16. Smith, *Rationale,* p. 101. Mises, after endorsing the idea of 100 percent reserves to gold of banknotes and demand deposits (the latter unfortunately overlooked by the currency school in Britain), decided against it because of the "drawbacks inherent in every kind of government interference with banking." And again:

> Government interference with the present state of banking affairs could be justified if its aim were to liquidate the unsatisfactory conditions by preventing or at least seriously restricting any further credit expansion. In fact the chief objective of present-day government interference is to intensify further credit expansion. (Mises, *Human Action,* p. 443, 448)

17. Victor Modeste, "Le Billet des banques d'emission est-il fausse monnaie?" [Are Bank Notes False Money?] *Journal des economistes* 4 (October 1866), pp. 77–78 (Translation mine). Also see Henri Cernuschi, *Contre le billet de banque* (1866).

18. This policy conclusion is completely consistent with Mises' objective: "What is needed to prevent any further credit expansion is to place the banking business under the general rules of commercial and civil laws compelling every individual and firm to fulfill all obligations in full compliance with the terms of the contract." Mises, *Human Action,* p. 443.

For more on fractional-reserve banking as embezzlement, see Rothbard, *Mystery of Banking,* pp. 91–95.

19. White, *Free Banking,* pp. 71, 75, 135. Also see Marion R. Daugherty, "The Currency-Banking Controversy, Part I," *Southern Economic Journal* 9 (October 1942), p. 147.

20. Quoted in Fetter, *Development,* p. 176.

21. Ibid.

22. One measure of partial reform accomplished by the British government was the outlawing, in 1826, of small-denomination (under £5) bank notes (an edict obeyed by the Bank of England for over a century), which at least insured that the average person would be making most transactions in gold or silver coin. Even Adam Smith, the leading apologist for Scottish "free" banking, had advocated such a measure. But it is instructive to note, in view of Professor White's admiration for Scottish banking, that political pressure by the Scottish Tories gained the Scottish banks an exemption from this measure. The Tory campaign was led by the eminent novelist, Sir Walter Scott. Hailing the campaign, the spokesman for Scottish High Toryism, *Blackwood's*

Edinburgh Magazine, published two articles on "The Country Banks and the Bank of England" in 1827–28, in which it wove together two major strains of archinflationism: going off the gold standard and praising the country banks. *Blackwood's* also attacked the Bank of England as overly restrictionist (!), thus helping to inaugurate the legend that the trouble with the bank was that it was too restrictive instead of being itself the major engine of monetary inflation. In contrast, the *Westminster Review,* the spokesman for James Mill's philosophic radicals, scoffed at the Scots for threatening "a civil war in defense of the privilege of being plundered" by the banking system. See Fetter, *Development,* pp. 123–24.

23. Professor White has performed a valuable service in rescuing Parnell's work from obscurity. Parnell's tract of 1827 was attacked from a more consistent hard-money position by the fiery populist radical, William Cobbett. Cobbett averred that "ever since that hellish compound Paper-money was understood by me, I have wished for the destruction of the accursed thing: I have applauded every measure that tended to produce its destruction, and censured every measure having a tendency to preserve it." He attacked Parnell's pamphlet for defending the actions of the country banks and for praising the Scottish system. In reply, Cobbett denounced the "Scottish monopolists" and proclaimed that "these ravenous Rooks of Scotland . . . have been a pestilence to England for more than two hundred years."

24. Fetter, *Development,* p. 22. Among his other sins, Sinclair, an indefatigable collector of statistics, in the 1790s published the twenty-one–volume *A Statistical Account of Scotland* and actually introduced the words *statistics* and *statistical* into the English language.

25. Quoted in White, *Free Banking,* p. 124.

26. The interchange between Peel and Gilbart may be found in the important article by Boyd Hilton, "Peel: A Reappraisal," *Historical Journal* 22 (September 1979), pp. 593–94. Hilton shows that Peel (far from being the unprincipled opportunist he had usually been portrayed as by historians) was a man of increasingly fixed classical liberal principles, devoted to minimal budgets, free trade, and hard money. Not understanding economics, however, Hilton characteristically brands Peel's questioning of Gilbart as "inept" and sneers at Peel for scoffing at Gilbart's patent dodge of lacking "personal knowledge."

Moreover, not being a classical liberal, Hilton ridicules Sir Robert Peel's alleged inflexible dogmatism on behalf of laissez-faire. It is most unfortunate that White, in his eagerness to censure Peel's attack on inflationary bank credit, praises Hilton's "insightful account of Peel's little-recognized dogmatism on matter of monetary policy" (p. 77 n). Does White also agree with Hilton's denunciation of Peel's "dogmatism" on free trade?

27. Quoted in Fetter, *Development,* p. 193.

28. Neither is the example of James Wilson reassuring. Wilson, founding editor of the new journal, *The Economist,* was dedicated to laissez-faire and to the gold standard. He entered the monetary debate quite late, in spring 1845, becoming one of the major leaders of the banking school. Though of all the banking school, Wilson was one of the friendliest to free banking and to the Scottish system, he *also* claimed that the Bank of England could never overissue notes in a convertible monetary system. And though personally devoted to the gold standard, Wilson even made the same

damaging concession as Gilbart, though far more clearly and candidly. For, of all the major banking school leaders, Wilson was the only one who stated flatly and clearly that no banks could ever overissue notes if they were backed by short-term, self-liquidating real bills, *even* under an inconvertible fiat standard. See Lloyd Mints, *A History of Banking Theory in Great Britain and the United States* (Chicago: University of Chicago Press, 1945), p. 90.

White's Free-Banking Thesis: A Case of Mistaken Identity

Larry J. Sechrest

Lawrence H. White's fascinating work entitled *Free Banking in Britain: Theory, Experience, and Debate, 1800–1845* has had a not inconsiderable impact upon monetary economists. Everyone seems now to be, at the very least, aware of the issues relevant to the free banking versus central banking controversy. (Of course, White is not alone in his endeavors. See also the recent work of Rolnick and Weber,[1,2,3,4] Rockoff,[5] and Rothbard[6].) Furthermore, White's depiction of the Scottish system between the years 1695 and 1845 appears to have gone unchallenged as to its historical accuracy. This article examines several of White's key assertions, as well as several tangential ones, in light of the available historical documentation. Wherever possible, sources are quoted rather than paraphrased so as to reduce to a minimum any interpretive bias.

What emerges from the process is the realization that—rather than White's model of a laissez-faire system devoid of a central bank, solidly based upon the unquestioned convertibility of notes into specie, with each bank bearing its full liquidity costs by holding its own specie reserves—the Scottish system was *de facto* a central bank system in which individual private banks pyramided their note issues upon the reserves of the three chartered banks, which, in turn, pyramided their issues upon the reserves of the ultimate source of liquidity for the entire British Isles: the Bank of England. In short, White's thesis that the Scots enjoyed free banking fails to be supported by the evidence.

Parenthetically, I would like to point out that I draw these conclusions despite the fact that I am myself an advocate of free banking. White's theoretical model is elegantly stated and, furthermore, workable in the real world.

The author is indebted to Murray N. Rothbard for the suggestion that this line of inquiry might prove productive.

Review of Lawrence H. White, *Free Banking in Britain: Theory, Experience, and Debate, 1800–1845* (Cambridge, Eng.: Cambridge University Press, 1984).

It is simply in trying to fit the Scottish experience to that model that White goes astray.

Convertibility of Notes

First of all, it behooves me to clarify just what is necessary if one is to have "free banking." White defines it as "the unrestricted competitive issue of specie-convertible money by unprivileged private banks" (p. ix). Vera C. Smith adds that (1) notes issued by such banks must be redeemable upon demand for gold and (2) such banks should not be able to "call upon the Government or any other such institution for special help in time of need."[7] It should be, in other words, a "system of 'each tub on its own bottom'," to quote White himself (p. 43).

There must be neither—if a given system is to be categorized as free banking—frequent refusals to redeem notes for specie nor regular recourse to a central bank in order to fulfill the bank's liquidity needs. Those needs should be met via "interbank lending of existing reserves" within the system.[8] Furthermore, notes should (if truly convertible on demand) trade at par with gold coin. Finally, as White claims for the Scottish banks, a free banking system should be conducive to stable economic growth rather than to successions of crises.[9]

Of the numerous citations that follow, the lion's share goes to the man who has written the definitive history of Scottish banking, Professor S.G. Checkland of the University of Glasgow.[10] Please notice that my reliance upon Checkland is fully consistent with White's own statements: in *Free Banking in Britain*, White refers to "S.G. Checkland's authoritative chronicle of the industry" (p. 33), while in personal correspondence, White declares that Checkland "*is, of course, the authority on the facts.*"[11] Other citations will be from Vera C. Smith, Adam Smith, Frank W. Fetter, Ludwig von Mises, and Henry Meulen—all mentioned in White's book.

Certainly a cornerstone of the Scottish system as White portrays it is the absolute convertibility of bank notes into specie upon demand. Admittedly, before 1765, Scottish banks sometimes failed to redeem on demand because they utilized the "option clause," which allowed the bankers (at their discretion, not that of the note holder) to delay redemption for six months in exchange for the payment of interest—usually 4–5 percent—on the notes held.[12,13] But what of after 1765, the year in which both the option clause and notes smaller than £1 were declared illegal?

Frank W. Fetter states that: "To a large degree there was a tradition, almost with the force of law, that banks should not be required to redeem their notes in coin. Redemption in London drafts was the usual form of paying noteholders."[14] Checkland confirms this:

> The Scottish system was one of continuous partial suspension of payments. No one really expected to be able to enter a Scots bank, perhaps especially a public bank [the Bank of Scotland, the Royal Bank and the British Linen Bank were publicly chartered institutions], with a large holding of notes and receive the equivalent immediately in gold or silver. At best they would get a little specie and perhaps bills on London.[15]

Checkland adds that: "Much emphasis was laid on the loyalty of the banks' customers—requests for specie met with disapproval and almost with charges of disloyalty."[16]

Henry Meulen—himself no friend to the gold standard—alleges that the typical Scottish banker "paid notes instead of gold to any depositor who might call, and was thus able to operate with a smaller reserve of gold than would otherwise have been necessary."[17]

Nor are these quotations the only such comments on the issue of convertibility. Meulen[18] and Checkland[19] both make additional comments that do not depart significantly from the statements already cited and that, therefore, will not be quoted here. The unambiguous nature of the foregoing compels one to question seriously White's claim that Scottish bank notes were redeemable in gold upon demand.

If notes were often not readily redeemable in gold coin, then one may fairly ask: why would bank customers be so willing to accept them? Why, in other words, was most Scottish business conducted entirely in terms of bank notes? (That this latter state of affairs was indeed the case is confirmed by Checkland,[20] Vera Smith,[21] and Adam Smith.[22]) The answer is of two levels. (1) The banks, in their quest for profits, sought the greatest possible circulation for their respective notes. To accomplish such circulation, they offered very easy repayment terms to those who had discounted bills of exchange and were willing to accept notes rather than specie.[23] (2) It became accepted practice for merchants who had received said bank notes to either require their employees to accept their wages in those notes rather than coin or to offer higher wages to those employees who were willing to do so.[24]

Notice what is implicit in the preceding: if notes were truly convertible on demand and, therefore, traded at par with specie—as White claims was the case—why were such inducements necessary? This suggests that notes perhaps did not trade at par. And, indeed, there is evidence that they did not. Adam Smith records that, in regard to transactions involving bills of exchange in the towns of Carlisle and Dumfries, notes traded at 4 percent below par because "at Carlisle, bills were paid in gold and silver; whereas at Dumfries they were paid in Scotch bank notes."[25] Meulen certainly concurs: "There were frequent instances of notes circulating at a discount for months on account of diminution of public confidence in the bank of issue and inability to apply for immediate redemption of the paper in coin."[26] As Mises

has stated with characteristic clarity, the only way to prevent money-substitutes such as notes from trading at a discount against money (gold coin in the British case) is to guarantee their prompt and unconditional conversion into money on demand.[27] Conversely, if one witnesses notes trading below par, one can safely conclude that the reason is the failure to redeem them for specie.

Privileged Banks

Recall White's definition of free banking as involving "*unprivileged private* banks" (emphasis is mine). At least one other commentator disagrees with White's claim that such a characteristic was present in the Scottish system. Checkland states categorically that "the three public institutions (Bank of Scotland, Royal Bank, and British Linen Bank) enjoyed limited liability [the private banks and the joint-stock banking companies were all subject to unlimited shareholder liability] and so were in a preferred position relative to all others."[28] Later he notes that "the State had created two public banks [and later added the third] and continued to confirm their preferred position, through their limited liability and through their public identity and perpetual succession."[29] To this can be added the observation that "there was a long-standing government instruction to the officers of the customs to accept only the notes of the chartered banks in payment of duties, and to 'refuse the Notes of every other bank without exception'."[30] Clearly, there were privileges held by the chartered banks that were denied to all others.

Along with these privileges, however, there apparently were attendant responsibilities. The three chartered banks were expected to function somewhat like local reserve banks for the private bankers and the joint-stock banking companies. Notice, for example, that during the 1797–1821 suspension of specie payments, the large private firm of William Forbes and Co. paid its depositors not with its own notes but with the notes of the public banks.[31] Indeed, "it became the custom of other banks, both private bankers and provincial banking companies, to hold part of their cash in the notes of the public banks, rather than hold cumbersome gold. When there was a demand for coin at crisis times, such banks would pay out such notes, telling their clients to go to the public banks for specie."[32] Fetter clearly confirms this when he states that "Scottish private banks held most of their reserves in the notes and deposits of the chartered banks of Scotland."[33] This practice would, of course, compel the chartered banks to maintain large liquid reserves on behalf of the other banks, this being a key manifestation of the "traditional responsibility of the older chartered banks of Scotland to keep the system in order."[34]

Furthermore, it should be pointed out that the few existing records of the public and private banks do seem to bear out the previously mentioned relationships. The average reserve ratio of specie to demand liabilities for six provincial banking companies was 10 to 20 percent in the late eighteenth century, but dropped to 0.5 to 3.2 percent in the early nineteenth century.[35] By comparison, the average ratio of investments and liquid assets to total assets for the Royal Bank and the Bank of Scotland for the years 1814, 1817, 1819, 1822, 1823, 1825, 1833, and 1838 was 48.4 percent as opposed to 35 percent for the three public banks together in 1802.[36] In other words, as the private banks and provincial banking companies continued to economize on specie by redeeming notes less and less often, the public banks held ever more liquid assets to serve as a cushion for the others. I want to emphasize here that the extant data are quite sketchy, so only the most general of conclusions can be justified; nevertheless, the data do not seem to contradict what one might expect given the foregoing quotes from Checkland and Fetter.

Stability of the System

What of the cyclical stability of the Scottish system? White refers to the "relative mildness of Scottish cycles"[37] and produces a table of bank failures (1809–30) in the English and Scottish systems, respectively, which demonstrates that the percentage of bank failures during that period was greater in England (1.81 percent to 0.40 percent).[38] First of all, I must comment that that percent difference does not seem tremendously large intuitively even though statistically the percentages are significantly different at the 1 percent confidence level. More importantly, if one reviews the entire "free-banking" period (1765–1845, according to White), the picture changes somewhat dramatically.

White depicts the Ayr Bank failure of 1772 as relatively minor in import, having brought about an increase in money demand in Edinburgh for less than a day, and as an incident that "did not imperil the Scottish banking system as a whole."[39] Checkland sees it a little differently. He maintains that "no less than thirteen Edinburgh private bankers fell with the Ayr Bank, never to rise again."[40] However, Checkland does agree with White that little permanent damage was done to the system as a whole.[41]

The point is that if one looks at the period 1772–1830 in regard to Scottish bank failures, one finds that the inclusion of the 1772 closures as well as the seven failures that occurred between 1773 and 1808 changes White's ratio noticeably.[42] The mean average of the annual Scottish bank failures per thousand banks becomes 13.28, whereas the comparable figure for English banks (1809–30) is 14.1 or 18.1—depending on whether one uses Gilbart's or

Pressnell's data.[43] But in either case, the failure rates of Scottish and English banks are now not statistically different at the 1 percent confidence level.

It also may be noted that financial crises seemed to hit Scotland very frequently—specifically, in 1762–64, 1772, 1778, 1787, 1793, 1797, 1802–03, 1809–10, 1818–19, 1825–26, 1836–37, and 1839.[44] Further, Checkland's description of the expansionary phases that preceded each "crisis" sounds much like the scenario of credit-induced malinvestment that lies at the heart of the classic Misesian business cycle. Checkland sums it up well when he states: "In principle, it [the Scottish system] should have been capable of stability or, at least, of fairly easy contraction. In reality, it was not."[45] Due, perhaps, to its being established upon the wrong principle?

And how, one may ask, did the Scottish banks extricate themselves from these frequent liquidity crises? Did they, as White claims, solve the problem among themselves via interbank loans?[46] Although such interbank loans do seem to have occurred, the largest and most frequent loans were from that paradigm of central banking, the Bank of England. I will cite but a few of the many examples of such loans. (1) In the crisis of 1793, a total of £404,000 was granted to several Scottish banks. (2) When the Ayr Bank failed in 1772, the first place it sought a loan—for £300,000—was the Bank of England. (After rejecting the Bank of England's terms, the Ayr Bank asked for £50,000 each from the Royal Bank and the Bank of Scotland—and was turned down.) (3) In November 1830, the "Royal Bank negotiated a credit with the Bank of England of £500,000; the Bank of Scotland, one of £200,000."[47]

To confirm that the foregoing were not isolated incidents, please observe the following summary declaration by Checkland: "By 1810, the Bank of England, short of the state itself, was the effective final arbiter of the supply of liquidity, both for England and Scotland."[48] Fetter adds that "it [the Bank of England] was also the holder of the nation's gold reserve. The country and joint-stock banks, and the Scottish and Irish banks, either directly or through the London money market, turned to it in time of crisis."[49] This certainly seems to establish the Bank of England as the lender of last resort for the whole British Isles rather than just for England, as White tends to argue. Furthermore, those who might object that recourse to the London money market does not necessarily imply recourse to a central bank need to refute Checkland's statement that the Bank of England directly controlled both interest rates and the supply of credit in London.[50]

In addressing the issue of how to gain monetary autonomy for Scotland (something White apparently thinks the Scots had throughout the period under consideration), Checkland, who clearly thinks no such autonomy existed, asserts that:

> most important of all, it would be necessary for Scottish banking to hold its own gold reserve . . . conversely, Scottish banking, by placing itself outside

> the London system, would relieve the Bank of England of the need to hold bullion reserves against Scottish demands for liquidity . . . [yet] a willing Scottish dependence upon London had been apparent from the founding of the Bank of Scotland in 1695 . . . The Scots in expelling their gold by the vigour of their note issue, basing their banking system on the latter, had made themselves ultimately dependent upon London liquidity.[51]

How such circumstances can fail to contradict any "free banking" hypothesis I do not understand.

Further Difficulties

The institutional link between the individual private banks and joint-stock banking companies, on the one hand, and the Bank of England as lender of last resort, on the other hand, seems to have been the three chartered "public" banks—the Royal Bank, the Bank of Scotland, and the British Linen Bank. I have already noted that the nonpublic banks often redeemed their notes and deposits in the notes of the public banks, rather than in specie (i.e., much of the reserves of the nonpublic banks were held in the form of public bank notes). Similarly, "the three chartered banks of Scotland kept their reserves largely in deposits with the Bank of England."[52] And apparently the chartered banks had a ready source of liquidity in the Bank of England, for Checkland says that "the Royal Bank had access to and credits from the Bank of England from 1728, whereas the Bank of Scotland did not gain such facilities until 1791."[53]

This suggests the potential for the pyramiding of an excessive note issue upon inadequate reserves, but it does not establish that such monetary expansion actually took place. Indeed, in the absence of any reliable economic data for Scotland separate from the rest of the kingdom, one could probably never demonstrate either the truth or falsity of such a proposition in a modern quantitative way. Nevertheless, one does have some qualitative evidence: "The Scottish banks had developed so compelling a set of means for getting and keeping their paper in circulation that, in non-crisis times at least, they could provide an extraordinarily high level of liquidity, with accompanying danger."[54] No less an authority than Adam Smith went so far as to say that "the circulation (in Scotland) has frequently been over-stocked with paper money . . . The Bank of England paid very dearly, not only for its own imprudence, but for the much greater imprudence of almost all the Scotch banks."[55]

Meulen asserts that "it transpired that at times when gold was being drained both from Scottish and English banks the Scottish bankers had not restricted their note issue, but had withdrawn gold from the Bank of England

to support their credit system."[56] Notice that this directly contradicts the fact that in a true free-banking system, even when a number of banks expand and contract their note issues together, a loss of specie from the system necessitates, *ceteris paribus*, a decrease in the total note issue.[57] Meulen's assertion seems much more in keeping with a central banking system in which there is a single lender of last resort, but a multiplicity of issuers of notes and demand deposits. This latter is what I believe the Scottish system actually to have been.

Two important means by which "free banks" allegedly compete are the discounting of commercial bills and the payment of interest on deposits. If it were the case that these operations were seriously constrained by law, then one might conclude that a significant characteristic of free banking was absent. That appears to be applicable to Scotland. In 1714, a Usury Law was passed which set an upper limit on interest paid of 5 percent. This law was not changed until nearly the end of "free banking"—1833—at which time, bills of exchange and promissory notes were exempted from its provisions.[58] Checkland declares that "the Usury Law limited competition for deposits"[59] and, indeed, its effect on "any form of advance was seriously prohibitive,"[60] which conclusion is also expressed by Meulen.[61]

Three additional inconsistencies should be noted. Admittedly, they involve tangential issues which are, by themselves, trivial; yet they are perhaps instructive in that they may reveal inadequate research on White's part. White claims that Britain's first bank to ever make public its annual report was the joint-stock Union Bank of Glasgow in 1836.[62] Yet Checkland, in his chapter on banking practices from 1810 to 1850, states that the officers of the public banks and the joint-stock banks were very secretive and that "none of the joint-stock banks printed and circulated their annual reports."[63]

Also, according to White's list of Scottish bank failures (1809–30), there were no failures in 1821.[64] However, Checkland states that in 1821, both the Galloway Bank and the Kilmarnock Banking Company went under.[65]

Finally, White declares that "private bankers in Edinburgh did not issue notes, whereas provincial banks typically were banks of issue."[66] In contrast, Checkland remarks that Edinburgh private bankers did indeed issue notes—although not before the 1760s and not in any great quantity.[67]

Conclusion

This article has examined in some detail the historical evidence regarding Scottish banking in the eighteenth and early nineteenth centuries. The focus has been upon the following question: is Lawrence White's contention that this period was one of free banking supported by other commentators? The

unavoidable answer—and one that I accept with regret—is that the evidence does not support White on several key points.

First and foremost, the Scottish banks do not seem to have actually practiced note convertibility (into specie). They also had frequent recourse to the Bank of England as their primary source of liquidity in time of crisis. The three chartered banks possessed both privileges and responsibilities that were not possessed by the private banks and the joint-stock banking companies. Overall, the system does not appear to have been very productive of stable economic conditions: expansionary, inflationary periods were followed with rapidity by contractionary, deflationary periods. The source of such fluctuations seems to have been largely the Bank of England, an observation consistent with the 1810 Bullion Committee's report that "the circulation of the Bank of England had an important influence on the circulation of the country banks and of the Scottish banks."[68] (As evidence of this, one may notice that, for example, in 1818, the Bank of England restricted both money and credit, and prices in Glasgow plummeted—sugar, grain and timber by about 33 percent, cotton by 50 percent—while commercial bankruptcies in Glasgow and Aberdeen hit new highs.[69])

But was this a straightforward central-bank system with one issuer of notes? Clearly not. There was indeed competition in note issuance as well as some competition (limited due to the Usury Law) in advances and deposit issuance. Yet there was, unmistakably, a single lender of last resort—a single ultimate source of liquidity. Thus, there also was some pyramiding of notes upon inadequate specie reserves. This was a hybrid system: part free banking, part central banking, possessing both the virtues of the former and the vices of the latter.

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33. Fetter, p. 34.
34. Checkland, pp. 353, 360, 450–51.
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36. Checkland, pp. 240, 740, 741.
37. White, p. 44.
38. White, pp. 48–49.
39. White, p. 32.
40. Checkland, p. 132.
41. Checkland, p. 133–34.
42. Checkland, pp. 177–78.
43. White, p. 48.
44. Checkland, pp. 213–14, 403.
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46. White, p. 45.
47. Checkland, pp. 131, 219, 410.
48. Checkland, p. 276.
49. Fetter, p. 152.
50. Checkland, p. 447.
51. Checkland, pp. 447–48.
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55. Adam Smith, pp. 286, 288.
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A Critique of *What Do Unions Do?*

Morgan Reynolds

Professors Freeman and Medoff have created quite a stir with *What Do Unions Do?*—the first substantial pro-union book by economists in decades. The book has drawn an extraordinary amount of (mostly favorable) attention, with articles in magazines such as *Business Week* and *Fortune,* a full-scale symposium in *Industrial and Labor Relations Review,* and coverage in many academic journals. All the attention, in my view, says more about what articulate opinion wants to hear than what is true.

There always has been abundant pro-union writing in the academic community, but economic analysis and many economists continued to stand in the way of the complete celebration of unionism.[1] Freeman and Medoff do not frontally attack the economics of trade unionism, although the book is the centerpiece of the Harvard school's campaign to neutralize the traditional monopoly/cartel analysis of unions. An accurate subtitle for the book would be *The Case for Worker Collectives.*

The case is weak. Freeman and Medoff (F-M) offer no coherent theory, integrated with general economic theory, to displace the core theory. Instead, they acknowledge that "most economic studies, implicitly or explicitly, have judged unions as being a negative force in society" (p. 4). This admission gives an appearance of balance and accommodates the fact that many economists perceive the similarity between labor combinations and other producer groups who try to raise their prices by restricting access to markets.

Given the obvious validity of the economic model, union apologists must shift the ground of the debate. F-M claim that there is a "shortage of statistical evidence concerning what unions do beyond raising wages that set the stage for our research agenda" (p. 4). My unsympathetic translation is: set economic reasoning aside; number crunching from Harvard will deliver the truth. This stretches credulity beyond the breaking point for most economists, much less Austrian economists.[2]

Review of Richard B. Freeman and James L. Medoff, *What Do Unions Do?* (New York: Basic Books, 1984).

Instead of rigorous theory, F-M give us speculation about how the voice/response face of unions can induce better management and greater productivity within unionized enterprises by reducing labor turnover, enhancing worker morale and cooperation, negotiating "more efficient" workplace characteristics, resolving grievances, and pressuring management into stricter efficiency. This thin porridge follows Albert Hirschman's book, *Exit, Voice, and Loyalty,* in identifying two mechanisms of adjustment: exit (the classic market mechanism of mobility) and voice (discussion of problems). To the Harvard professors, unions basically are agents of collective voice rather than rent- and power-seekers: "In modern industrial economies, and particularly in large enterprises, a trade union is the vehicle for collective voice—that is, for providing workers as a group with a means of communicating with management" (p. 8). This version of unionism has an eerie parallel: Valery Chalidze, editor of *Kronika Press,* a periodical of Soviet dissidents, says that Soviet propaganda maintains that "the individual has no need for freedom of speech, it stresses instead expression of the collective will" (*Wall Street Journal,* 7 January 1980, p. 13).

What Do Unions Do? is not wrong about everything—it definitely contains some useful information. But the book is parochial: it ignores public-choice theory, property-rights theory and law, economics, and related fields of economic inquiry; it relies on Harvard-connected empirical studies; and it ignores foreign experience with labor unions, especially Great Britain's. Most importantly, the book is misleading or wrong about the important things. There are numerous sins of omission and commission.

Their research may appear sophisticated and far-reaching to some readers, but F-M's main contentions can be easily summarized in four statements:

1. A trade union is basically a vehicle for collective voice—a means of communication at work and for all labor in the political arena.
2. Unionism on net probably raises productivity.
3. Unions promote economic equality by reducing wage inequality and lowering profits.
4. Unions are democratic, noncorrupt organizations.

F-M conclude that the positive effects of voice/response outweigh the negative elements of monopoly and that "unions do much social good" (p. 250).

To many economists and businesspeople, I suspect, these claims appear fantastic and absurd on their face. I have tried to refute them in *Power and Privilege* (pp. 77–91) and in two papers listed in the references, as have other economists. Instead of rehashing those discussions, I propose to glide through *What Do Unions Do?,* chapter by chapter, citing deficiencies.

Freeman and Medoff boldly title chapter 1 "A New Portrait of U.S.

Unionism." *New* always promises a lot but seldom delivers. *What Do Unions Do?* is mostly old ideas recast in terms such as *collective voice* and fleshed out with recent statistical results. The old ideas boiled down to this: (1) Employees and employers are natural antagonists and employers have a powerful advantage over employees (labor monopsony). (2) The state should promote unions and the practices of collective bargaining to offset this inequality (i.e., promote bilateral monopoly). That is Freeman and Medoff's basic story, though not put so succinctly. For example, in the last chapter, "Conclusion and Implications," F-M say, "We believe that steps should be taken to limit the power of management to oppose unionization. . . . We are convinced that current trends have brought the union density below the optimal level. . . . [Union and nonunion firms] limit management's power over workers."

Chapter 1 is an overview and it asserts that unions improve productivity (!?) partly because they "pressure management to be more efficient in its operation" (p. 3) and "management can respond to unionism in more creative ways" (p. 11). This proposition supports P.T. Bauer's comment that "in economics we have sunk to such depths that statement of the obvious has become the first duty of thoughtful people" (p. 142). Ignoring the restrictive work practices of labor unions, F-M implicitly rely on Leibenstein's erroneous X-inefficiency theory (see Stigler), which, in turn, resembles the old "shock" theory of the Machlup–Lester debate in the late 1940s. W.H. Hutt soundly disposed of the shock theory of improvement by pointing out that if adversity stimulates managerial imagination, enterprise, and effort more than incremental prosperity, it would be wise for government to impose burdens on any sector they wished to foster—taxing them to give them a jolt and thereby causing them to flourish.

On union power, F-M say, "Most, if not all, unions have monopoly power, which they can use to raise wages above competitive levels" (p. 6). The authors, however, fail to point out the source of this undefined power to raise labor prices. The book shares this failing with most pro-union writing. Union power rests on legal privilege and immunities, both by statute and tacit nonenforcement. State support allows worker cartels to use coercive threats and initiate violence in ways denied to others. A century of intellectual effort sold the idea that the noble ends of unionists justify their means and that allowing unions wide compass to use their tactics helps "labor." As Mises said in 1922, "The long and short of trade union rights is in fact the right to proceed against the strike-breaker with primitive violence" (p. 435). These truths make F-M statements such as "the wages obtained by unions must be viewed as the joint responsibility of management and labor" (p. 6) disingenuous.

F-M relate that unionized "workers" usually report themselves less satisfied with their jobs than nonunion employees: "Unionists are especially dissatisfied with their work conditions and their relations with supervisors."

F-M explain, "unions galvanize worker discontent in order to make a strong case in negotiations with management. To be effective, voice must be heard" (p. 21). Certainly, the adversarial mentality and politicization of the workplace matter, but two other factors matter: in view of the excess labor supply available at union prices, firms demand more effort and output ("speed-ups"), and unionized firms also lack the flexibility to equalize the marginal returns to all forms of compensation and effort by all types of labor. Firms in competitive labor markets are relatively free to make these adjustments, and the market disciplines them to accommodate worker preferences for wage and nonwage conditions.

Chapter 2 discusses the union membership statistics and other institutional facts. Oddly enough, F-M seem to believe that competition in the labor market is the natural condition if monopoly unionism disappears:

> When a market is national or international, with output produced in one plant competing with that produced in other plants, independent bargaining by individual locals would lose unions their monopoly power, as locals would compete for jobs through lower wages. . . . The result would be a reduction in wages to more or less competitive levels. (p. 37)

Oh horrors! Too bad. F-M believe in a muddled way that without monopoly unionism, competitive results generally would obtain rather than monopsony exploitation of labor. But why would competitive markets be destructive? F-M do not tell us why, which makes their support of unionism and pro-union regulations puzzling. They endorse competition in product markets, so they believe that labor is different. Yet F-M's version of labor's disadvantage does not fit the monopsony model in a straightforward way. Strange.

An erroneous thread through chapter 2 and the rest of the book is F-M's notion that we live in a world of labor against capital, those two great macro abstractions. F-M say, for example, "The principal role of the AFL-CIO is to serve as the voice of labor in the political sphere" (p. 38). We might debate whether the AFL-CIO speaks for all organized labor, but Lane Kirkland certainly does not speak for labor, defined as all who labor for a living in the United States. The U.S. economy has always been predominantly nonunion, 83 percent nonunion as of 1985 and rising. Another example of F-M's bloc thinking: "In short, just as workers organize into unions to enhance their power in both economic and political forums, employers organize into associations for the same purposes" (p. 41).

Chapter 3 on the union wage effect is, for the most part, sensible. They argue that the union wage effect produced a premium of 20 to 30 percent in the 1970s and that givebacks in the 1980s were part of the market correction process. F-M, however, are much too sanguine about the discoordination chronically caused by these pricing failures. F-M also forget the whole ques-

tion of rent seeking and who suffers the losses from union plunder. I do not believe that F-M exaggerate the size of union wage premiums, though H. Gregg Lewis has an alternative view. He carefully analyzed two hundred studies and concluded that the union–nonunion wage differential was only 14–15 percent in the 1970s.

Chapter 4 summarizes F-M's research on fringe benefits. They find that unions drive up fringes by 30 percent, *ceteris paribus* (p. 41). They concede that part of the union effect represents the social cost of monopoly power, but part is a social gain: "at the same labor cost, unionized workers will have a desirable set of benefits" (p. 74). This is simply an implausible, even fantastic, conjecture. F-M claim that there is good reason to expect unions to do a better job of eliciting workers' preferences because of the adversarial relation between employers and employees—"the fact that . . . nonunion employees have an incentive to withhold information about preferences" (p. 71). This argument can be dismissed out of hand—free markets do not produce fearful, helpless employees. The F-M argument fails to apply in product markets; it also fails to recognize that firms are intermediaries between product and resource markets in which resource suppliers voluntarily cooperate to their mutual advantage, that free markets pressure surviving (low-cost) firms to tailor their compensation mix to suit worker preferences, and that nonunion mechanics, loggers, truckers, and dockworkers are not afraid of their bosses. Work opportunities—not entry barriers erected by labor unions—inspire confidence.

Chapter 5 tries to counter the charge that unions are a labor elite, that is, unions advantage high-wage workers and increase economic inequality. F-M claim that their empirical research shows that unionism "tends to be in general a powerful force for equalization of earnings in the economy" (p. 78). This claim is bound to be wrong, but it is not theoretically impossible. F-M argue that union policies of a single rate for the job tend to even up wage rates within unionized plants (at the cost of incentives for individual performance) more than they offset the disequalizing impact of unions elsewhere. H. Gregg Lewis, however, points out that we cannot observe wage dispersion in the absence of monopoly unionism, nor can we statistically infer it from fitted wage equations. W.H. Hutt argues that if competition among workers in different fields had been unrestrained, we would have far more people in the higher-paid kinds of work and far fewer in the low-paid kinds of work. I agree with Lewis and Hutt.

Chapter 6 claims that unionism substantially reduces quits beyond the union wage effect. F-M argue that this phenomenon should be attributed to the "voice" effect. The lower turnover in union jobs supposedly raises GNP about 0.2 to 0.3 percent, just offsetting the static welfare loss in GNP from the monopoly wage effect, estimated via Harberger's procedures. Ironically, economists used to praise resource mobility and flexibility, while F-M now

praise union-induced immobility. Econometric results to support the opposite view are available, of course. Jacob Mincer's longitudinal study, for instance, finds that more than half of the union wage premium of over 20 percent is rent, with the remainder a quality adjustment in hiring, and that the union wage-fringe premium completely accounts for the lower quit rates in unionized jobs. Mincer also finds that the seniority wage rates of union jobs reduce employee investment in general training.

Chapter 7 of *What Do Unions Do?* is about adjustment to business cycles. F-M agree with everybody else that unions reduce wage flexibility and rely on layoffs and unemployment benefits much more than the nonunion sector, though the authors downplay the union–nonunion differences. F-M overlook union inflexibilities as a factor delaying recoordination of markets and the restoration of employment and output. The pricing mechanism, not fiscal or monetary policy, recoordinates.

Chapter 8 discusses the seniority policies of unions. F-M's struggle to make unions look good works very poorly on this issue. The inverted incentives of union rules are nowhere better illustrated than by F-M's observation that one-quarter of union contracts have clauses that allow senior employees to be laid off ahead of junior employees—"layoff vacations." As with other researchers, F-M find that union members' wages do not rise as rapidly with seniority as those for nonunion workers, but that nonwage benefits rise by enough to compensate. The trouble is that the flattening of union wage profiles in human-capital variables such as schooling and experience is inefficient in terms of the lifetime income and substitution effects on work effort.

F-M argue that the inferior metering of rewards to individual productivity in union situations is offset by the gains from reducing the uncertainty of "managerial discretion." Another gain supposedly is the protection of "vulnerable" older workers. This is not economic analysis. If managers are capricious, the logic of free labor markets constantly works to correct it. F-M, by contrast, only offer their faith in union caprice ("rules") to replace company caprice (how widespread?) plus an appeal to emotion about helping the old. F-M conclude that "our best guess is that the rules are, on net, socially beneficial, but we lack the quantitative studies of the various circumstances to reach a clear conclusion" (p. 134). This conclusion plays to the gallery: numbers never speak for themselves.

What about the impact of union seniority rules on minority workers? No problem, F-M claim. Unions again are on the side of the angels because black employees are nearly as senior as white employees and seniority clauses protect blacks from arbitrary discrimination in the marketplace. Yet blacks often complain that union seniority rules work against them. F-M seem to forget that the marketplace is the historic protection for minorities, not government and unions. Further, it is plainly false to claim that blacks have the same ratio

of insiders to outsiders as whites do. We need only look at the huge numbers of blacks who are young, unemployed, illiterate, and out of the work force.

Chapter 9 takes up the question of job satisfaction. F-M accurately observe that union workers have very poor perceptions of supervisors and their own relationship with supervisors. Union workers claim that their supervisors do not encourage or help them to contribute to improving the production process. These facts are well known to industrial relations specialists and the explanations are obvious, though uncited by F-M. Unions impose job rigidities which increase worker boredom (e.g., UAW auto plants have over 135 job classifications and no one may do another's job, no matter what the temporary production situation), union headquarters constantly spew anti-company propaganda, and prickly workers file grievances when supervisors try to change something. All very unpleasant.[3]

F-M point out that union workers are dissatisfied with how unions affect their say on the job and in the company and are dissatisfied with what little unions do to make their jobs interesting. Yet a few pages later, the Harvard professors lament that "many nonmembers appear to have an incorrect perception of what unions do" (p. 145). F-M admit, however, that "voice operates by fanning discontent" (p. 149).

Chapter 10 discusses what unions do to nonunion labor. Here F-M waffle:

> Some nonunion workers gain from unionism, notably those in large nonunion firms and in firms threatened by organization that choose to combat unionism with "positive labor relations." Other nonunion workers, notably less skilled "secondary" workers, appear to lose from unionism. The net effect on the entire nonunion workforce is unclear. (p. 161)

Extraordinary. This flatly contradicts economic analysis. So-called union substitution policies by companies cannot be extensive—why should companies incur unionized costs without a fight? Some companies consciously follow union avoidance strategies, but this is part of the social waste induced by monopoly unions and the interventions supporting unions. The overriding truth is that an artificial scarcity implies artificial abundance elsewhere. Unions therefore harm prosperity and lower the flow of real wages. Over the long run, unions particularly impoverish by deterring investment.

Chapter 11 makes the case that unions improve productivity. F-M say, "The new work suggests that in general productivity is higher in the presence of unionism than in its absence" (p. 163). While F-M admit there are productivity-reducing aspects of unionism, they claim that if management conducts good industrial relations, productivity is likely to be higher under unionism. To be sure, a few empirical studies find that productivity is higher

in union than nonunion firms, but F-M's interpretation is wrong. Unions impose higher than competitive labor prices on unionized firms and firms seek maximum profit, so the marginal productivity of unionized labor among the survivors must be greater than that of nonunion labor, provided that firms eventually are able to employ inputs so that their marginal productivities equal their prices. Effective unionization, then, necessarily diverts employment from high- to low-productivity uses. Statistical techniques cannot eliminate this effect of union behavior in the data, nor should this result be applauded as a positive effect on output per worker. These union–nonunion productivity differentials are classic distortions in the allocation of scarce labor and capital caused by monopoly prices (see Reynolds, 1986).

F-M ignore direct restrictions on output imposed by unions—call it featherbedding, job security, or overstaffing. Examples are legion: tearing out factory wiring to rewire with union labor, standby orchestras, refusal to use ready-mixed concrete, compelling the use of an expensive operating engineer to run a construction elevator instead of a cheaper laborer, and so on. Most businesspeople bitterly complain that union work rules cost them more than union wages. While some Harvard professors and labor writers believe that unions aid productivity, surveys find few businesspeople who share this opinion (Reynolds, 1984, pp. 87–88). Neither F-M nor other pro-union scholars ever cite clear, observable cases of union improvements in productivity; they only cite econometric studies.

Perhaps the most telling objection to the F-M productivity claims is that managers, investors, and employees in nonunion firms have every financial incentive to discover and adopt any techniques that produce large gains in production at low cost. If unions and unionized firms happen to stumble into such productivity boosters, their advantage will not be kept by unionized firms for very long. Logically there can be no systematic union productivity advantage for economists to detect.

Other statistical studies find that the growth of total factor (residual) productivity is slower in industries with high proportions of union coverage. Even F-M admit that "unionized industries have, indeed, had somewhat slower growth of productivity than nonunion sectors, [but] the observed relation is too weak statistically to support the claim that unionism reduces dynamic efficiency" (p. 170). In truth, the union creed is: Here today, here forever.

Chapter 12 covers the impact of unions on profits. F-M, like other economists, find negative effects on the return to capital. F-M, however, say that this is OK because unions "reduce exceedingly high levels of profitability in highly concentrated industries toward normal levels. . . . the union profit effect appears to take the form of a reduction of monopoly profits" (p. 186). Very convenient: union coercion only harms "the financial well-being of organized enterprises or sectors" (p. 189). Of course, even if we believed that

the Robin Hoods of the labor market operated F-M's way—robbing only allegedly well-heeled giants such as AT&T, United Airlines, and GM—Freeman and Medoff ignore the consumers harmed by the further underproduction of "monopoly" output induced by union pricing, and the investors (including the widows, orphans, and workers trying to avoid poverty in their old age) who own shares of corporate giants. F-M blithely conclude that "there is little normative content in the direction of the effect per se" (p. 189). They fail to consider the inefficiency of concentrating overpriced labor on successful enterprises and rewarding less-successful enterprises with underpriced labor.

Chapter 12 is another instance of F-M's delusion that organized labor's enemy is capital—in this case, big business. Collaboration between big labor and big business is more familiar in Washington than in disputes—be it the shoe, auto, trucking, or steel industries—as both unions and companies seek protection from the competition of (mostly) nonunion domestic and foreign companies. The "enemy" of union labor is nonunion labor, not rapacious capitalists.

In chapter 13, F-M try to whitewash union political activities, claiming that although unions exploit existing regulations to obtain benefits for their members (often at the expense of the general public), most legislative success comes in the form of "general labor and social legislation" (p. 200). George Meany said it better: "Every piece of social welfare legislation in the last two decades carries a union label" (cited in Reynolds, 1984, p. 212). F-M exaggerate the distinction between the narrow and broad agenda of the unions. The AFL-CIO may claim that they lobby for, say, federally funded mass transit to help the elderly, disabled, and minorities, but union finances and membership ride on taxpayer subsidies to unionized municipal buses and trains. Unions lose some legislative battles to be sure, but all interest groups do.

Chapter 13 also misstates the political struggle as business versus labor. For example, "Legislation that strengthens unions tilts the balance of collective bargaining toward labor, while legislation that weakens unions tilts the balance toward business" (p. 201). But reductions in the legal privileges and immunities of organized labor help consumers. Some businesses are helped, others hurt. Consumers, not "business," primarily suffer the losses from the union-imposed wage taxes. Freeman and Medoff's analysis and prescriptions overlook the wisdom of Adam Smith: "Consumption is the sole end and purpose of production; and the interest of the producer ought to be attended to only so far as it may be necessary for promoting that of the consumer" (*Wealth of Nations,* book IV, chapter 8).

Chapter 14 argues that unions are not the unresponsive, undemocratic, corrupt, strike-happy organizations that some claim. While "blemishes" exist, they are minor and no more common than in the business world, F-M

reassure us. For example, F-M argue that strikes are a trivial cost in terms of labor hours lost to the economy, as many economists conclude. This is a superficial analysis, however. Union wage distortions and other union impediments to efficient production and employment rest on the strike threat. The threat does more harm in paralyzing management than strikes do. Further, F-M never define a strike. A strike is not simply a mass walkout by incumbent workers to protest substandard conditions. Free people have always had the unqualified right to withdraw their labor. As Arthur Shenfield describes the behavior of strikers:

> The jobs from which they have withdrawn performance belong to them, they maintain. Their labour is present and available for those jobs, and woe betide any other workers ("scabs", "blacklegs", etc.) who may seek to offer their labour in place of that of the striker. Woe betide also any employer who seeks to hire the labour of such "interlopers." (p. 11)

The irony of *What Do Unions Do?* is that it concentrates almost exclusively on the effects of unions, not the actual behavior of unions—the strikes, organizing, boycotting, campaigning, compulsory membership and dues collection, grieving, lobbying, pressuring, and political activism everywhere. The book tells us little about what unions do (the rent-seeking process) and nothing about the associated threats of disruption and violence that underlie the union system. Nor is there anything about the full-time union bureaucracy of some 35,000 people who live off $5 billion in annual dues collected from workers' wages, the annual compensation of $750,000 for Teamsters' president Jackie Presser, and so on. Ignored also is turnover among national union officials, summed up by a George Bernard Shaw character in *The Apple Cart*: "No king is as safe in office as a trade union official."

Chapter 15 has an amusing title: "The Slow Strangulation of Private-Sector Unions." It suggests that unions are the innocent victims of coercion rather than perpetrators of private coercion and beneficiaries of state privilege. Everybody agrees that the numbers show a steady, sizable decline in the share of the work force represented by unions. The question is why. F-M claim 72 percent of the decline stems from change in economic structure. They fail to mention that union pricing and belligerence change structure—decimating the steel industry, northern heavy industry, meatpacking companies, and so on. In F-M's account, unions are passive reactors to change, however, not causes of change. It would be closer to the truth to say that unions became powerful enough to destroy themselves.

What really disturbs F-M about the sunset days of unions is managerial opposition to unionism. Hiring labor consultants, firing workers for union activism, and other kinds of "unfair management practices" are hard to assess as a factor in the demise of unions, but F-M believe they are important, accounting for a quarter to a half of the union slippage. Yet, the private-sector

decline since the early 1950s has been a straight line, more or less. F-M recommend more pro-union regulations, such as requiring elections within fifteen days of a union petition (before management can react effectively), to offset managerial "law-breaking."

Contrary to F-M, a lot of the responsibility clearly rests on unions and their image with employees. F-M implicitly assume that most workers would join unions if it were not for intimidation by management. This is easily disproved. There are many antiunion workers in the United States, some fiercely so. They have religious, ideological, and financial reasons for being against unions. Companies that are nonunion or trying to become nonunion want to gain access to this part of the labor force and allow the more productive employees to advance. Surveys show that only a third of nonunion employees say they would vote union in an NLRB election. Unions continue to lose NLRB elections and decertification votes.

F-M, however, blame management for the union slippage. It is strange to see economists blaming managers in a normative sense. Even Freeman and Medoff admit that unions reduce profits. Those of us who are consumers and nonunion labor sellers might even cheer a little if more managers found their backbones and resisted union aggression. As union–nonunion wage differentials and work rules grew during the 1970s, causing many unionized companies to become uneconomic in increasingly deregulated and global markets, perhaps more managers began to resist forced labor exchanges. F-M indirectly recognize this factor because their last chapter urges unions to "use their economic power more judiciously in the future" (p. 250).

Alfred North Whitehead said, "A great society is a society in which men of business think greatly of their functions" (Jackman, p. 17). Suppose more managers said, proudly:

> Yes, we're trying to maximize the value of the company, the wealth of the owners. We try to produce and sell our products for the highest profits obtainable. We insist on our right to seek out the lowest prices for the skills we want to employ, as well the lowest available prices for the other inputs we use. We intend to run a harmonious ship, keep our labor costs competitive, protect jobs in this company, defend the wealth of our shareholders, and ultimately protect consumers. Efficient managers are the only line of defense for consumers. Our behavior also adds to productive employment and output in the economy, offers employment opportunities to the "outs," and has the long-run effect of diminishing economic inequality. Freeman and Medoff may condemn us, but apparently they do not understand economics. (p. 17)

If these imaginary managers would add, "We also insist on the right of workers to seek out the highest prices for their services, unimpeded by those allegedly harmed by this market freedom" (e.g., highly paid union members), the remedy for our labor maladies would be close at hand.

Notes

1. In an exchange with Melvin Reder, Freeman and Medoff (1985, p. 642) deny that they are pro-union, claiming their stance is merely "pro-empirical social science." Further, they aver that while they welcome "serious scientific investigation" concerning their union hypotheses, they "do not welcome criticism or praise which has a political, personal, or other nonscientific basis. It is a waste of everyone's time." Reder (p. 640) notes that "to state that, *inter alia*, a book functions as a political-economic tract is in no way to castigate it."

2. In a similar vein, Reder (p. 641) writes,

> The empirical findings reported by F&M on union–nonunion differences in wage rates and other aspects of compensation are (partial) associations. To interpret such findings as indicative of the *effects* of unionism, rather than of "other" forces correlated with the incidence of unionism, requires that some account be taken of the response of potentially unionizable workers to the (perceived) gains from being unionized.

3. Toner, for example, studied 244 workers in seven electronics companies in Ireland and found "no support for the 'voice' theories of the Harvard School. Workers in the non-union companies studied appeared to enjoy more 'voice,' better conditions, and higher morale" (p. 200).

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The Crash and Its Aftermath: A Review Article

Clifford F. Thies

In *The Crash and Its Aftermath*, Barrie A. Wigmore presents a detailed chronology of financial markets from "Black Thursday" in 1929 to President Roosevelt's "100 days" in 1933. The book's strength is in its consideration of bond markets, including the U.S. Treasury, corporate, municipal, and foreign bond markets, as well as (to a lesser degree) commodity markets, in addition to money and stock markets. Nowhere else can as complete a financial history of this time period be found. The book's weakness is its underlying theme that the Great Depression was caused by an unbroken string of negative shocks which pounded financial markets and the U.S. and world economies into ruin.

Wigmore begins with the fall of stock prices that took place from October to November 1929. This reflects his belief that the first negative shock causing the Great Depression was the speculative boom of the late 1920s which, on margin financing, raised stock prices to historic highs. Then, when reality inevitably burst this bubble, stock market prices tumbled, and tumbled, and tumbled, and took everything down with them.

The view that overspeculation during the late 1920s caused the Great Depression has been subscribed to by many contemporaries of the Depression and can be found in a number of histories. Among those holding this view have been conservative economists such as Benjamin Anderson and Keynesian economists such as John Kenneth Galbraith as well as officials of the Hoover administration. Galbraith, in *The Great Crash*, wrote "the collapse in the stock market in the autumn of 1929 was implicit in the speculation that went before. . . . This was the way past speculative orgies had ended. It was the way the end came in 1929. It is the way speculation will end in the future."

Wigmore makes this argument by gathering a voluminous amount of

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Review of Barrie A. Wigmore, *The Crash and Its Aftermath: A History of Securities Markets in the United States, 1929–1933*. Contributions in Economics and Economic History, Number 58. Westport, Conn.: Greenwood Press, 1985.

data relating market valuations of stocks to book values of assets and reported earnings. But, accounting data are significantly distorted by inflations and deflations. Using replacement cost estimates of assets and earnings, John Ciccolo and Christopher F. Baum have demonstrated that market valuations of stocks were no more optimistic during the late 1920s than they were during the mid-1960s. While both the late 1920s and mid-1960s experienced peaks in the stock market, the bull market of the 1960s was not followed by a crash and a depression. Something other than or at least in addition to the bull market of the 1920s must have caused the crash and the following depression.

Wigmore seems continually to touch on, but never grabs hold of, the overwhelming deflationary forces of the late 1920s and early 1930s. In his final chapter, he does indicate that "price level changes had an important impact." But, he never really analyzes the origin of falling prices: Why were commodity prices falling? And, was the Hoover administration's response of exhorting support of prices and wages appropriate?

Looking back, the obvious cause of the deflationary forces of the late 1920s and early 1930s was the (only temporarily successful) attempt by the United States and Great Britain to stabilize prices at levels well above their pre–World War I levels. During World War I, as during most wars, inflationary finance was used to pay for a substantial fraction of greatly increased, mostly war-related, government expenditures. For most belligerents, this was accomplished by suspending the gold standard and printing new paper money. For the United States, this was accomplished by monetizing the inflows of gold from the warring nations that had suspended. In the two cases the results were the same: a doubling of prices over a short period of time.

After the war, the United States and Great Britain had a decision to make: whether to stabilize their currencies at their prewar values or to make permanent some or all of their war inflations. The decision was made, explicitly in Great Britain, to only partially deflate prices *and* to resume the prewar gold parity. The same decision was made implicitly in the United States by attempting to stabilize prices at a higher than prewar level.

A new twist on the gold standard was supposed to enable the world supply of gold to support these higher prices. This new twist was the substitution of a gold bullion standard for a gold coin standard. In this way, gold would be taken out of circulation and hoarded by central banks so as to enable them to issue a greater quantity of money. Furthermore, only the United States and Great Britain were supposed to actually "back" their currencies with gold. Other countries, such as France, Germany and Italy, were to back their currencies with sterling- and/or dollar-denominated liquid assets.

This new gold standard did not work for two reasons. First, at the prices of the 1920s, it was not profitable to mine gold. Thus, the supply of new

gold was insufficient to finance expansion of world trade at the new "permanent" level of prices. Second, France, Germany, Italy, and other countries resumed convertibility, increasing the world demand for gold reserves.

By the mid-1920s, the increasing world demand for gold and the diminished supply of newly mined gold resulted in outflows of gold from the United States. The Federal Reserve responded by "immunizing" these gold flows. That is, in spite of the outflow of gold, the Federal Reserve maintained the quantity of money relative to domestic economic activity in order to stabilize prices at their new "permanent" levels. By the late 1920s, the amount of "free gold" available to the Federal Reserve fell to near zero. By the late 1920s, it would have been clear to an astute observer that the United States would have either to devalue or to deflate.

Unfortunately, the Hoover administration as well as many economists and industrialists confused the prosperity of the 1920s with the new "permanent" level of wages and prices. Thus, they mistakenly refused to lower wages and prices, choosing instead to "share" employment, on the outset of deflation, as Murray Rothbard has explained in *America's Great Depression.* (Krooss, pp. 90–91, describes this belief as the "high wage doctrine." Bernanke conducts an econometric investigation of work sharing and wage stickiness during the Great Depression.) Wigmore does refer to Hoover's exhortations to "neither raise nor lower wages," but offers little criticism.

Irving Fisher was convinced that the fundamentals (supposedly including the impact of Prohibition on the American worker's productivity!) indicated that the stock market crash was simply a correction. Even so, in *The Stock Market Crash—and After,* Fisher did address the "Menace of Gold Shortage," noting the outflows of gold, the low level of "free gold," and the fall in world production in gold. The market, apparently, also took note of the scarcity of gold since gold stocks and French-issue gold bonds performed relatively well throughout the Crash. Alaska Juneau Gold and Homestake Mining, two of the many stocks that Wigmore tracks through the early 1930s, outperformed their industry group ("mining stocks") and the market as a whole even though neither company featured any particular financial strength.

Wigmore feels compelled throughout his book to respond to *A Monetary History of the United States,* the history of this period written by Milton Friedman and Anna Schwartz. Friedman and Schwartz argue that much of the severity of the Great Depression could have been avoided if the Federal Reserve had maintained the liquidity of the banking system through open market purchases designed to maintain the quantity of money.

Wigmore absolves the Federal Reserve from the criticism of Friedman and Schwartz by saying, in effect, that preventing bank panics was not the job of the Federal Reserve. To the contrary, the Federal Reserve was established by the Congress after the Panic of 1907 specifically to prevent bank panics. Wigmore argues that even if the Federal Reserve had wished to flood

the banking system with liquidity, it could not have done so because of its need to "defend" the U.S. gold stock. (Of course, the reason the Fed was forced to defend the U.S. gold stock is that it was trying to fix too high a price level for goods and too low a purchasing power value for gold.)

In discussing monetary policy, Wigmore creates a distinction designed to exonerate the Federal Reserve from the criticism of Friedman and Schwartz. Money, says Wigmore, was easy "with narrow reference to the conditions in the money market, such as declining [short-term] interest rates." Wigmore persists in the Keynesian viewpoint, recently restated by Peter Temin in *Did Monetary Forces Cause the Great Depression?*, that short-term interest rates are *the* barometer of monetary policy. Short-term interest rates, like all market-determined prices, impound a variety of information (inflation expectations, liquidity and risk premiums, tax effects, etc.) in addition to the level of and/or change in aggregate demand. The movements of interest rates are simply too complex to be used to identify the impact of monetary policy.

A true gold standard would have required the Federal Reserve to reduce the money supply during the gold outflows of the 1920s. This policy would have lowered prices gradually to their prewar levels. (Such a gradual deflation occurred after the Civil War, enabling resumption of the gold standard in 1879.) Alternatively, once the massive deflationary forces became obvious, the Hoover administration and key industrialists could have urged across-the-board cuts in wages and prices to speed up the process and minimize the impact on employment and production.

Another solution would have been to devalue the dollar in concert with Great Britain's return to the gold standard at a lower parity reflecting the new "permanent" level of prices. Yet another solution—this was Irving Fisher's—would have been to index the gold content of the dollar so that a dollar would always be constant in terms of its purchasing power.

The solution eventually implemented during President Roosevelt's "100 days" involved devaluation, suspension of the gold clause then common in long-term bonds, massive expansion of the money supply (monetarist-style monetary ease), the cartelization of U.S. industry through the National Recovery Administration, the Wagner Act, and a slew of regulatory agencies, and federal social insurance including Social Security—the lot collectively known as the New Deal and designed to insure reinflation of wages and prices.

The response of government to its botched attempt to fix both the price level and the purchasing-power value of gold involved a massive and, as we now know, permanent increase in its intervention in the economy. Of course, those who believe a mysterious succession of negative shocks could have caused the Great Depression are apt to welcome government intervention in the economy. In another time, they would have been the people to sacrifice virgins to allay the gods.

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Berger on Capitalism

David Gordon

Peter Berger is an astute observer and erudite scholar but a poor theorist. So, at least, one is driven to conclude, judging by his work under review here, *The Capitalist Revolution*. Berger, famed for his work as a sociologist of knowledge, has braved the perils of conformity in his discipline by writing a work sympathetic to capitalism. He advances in the book fifty propositions "about prosperity, equality, and liberty": the issue of the role of capitalism in economic development especially interests him. Many of these propositions are both true and important, e.g., "44. There is an affinity between socialism and the totalitarian project for modern society" and "48. There can be no effective market economy without private ownership of the means of production" (p. 215). Unfortunately, Berger thinks he is doing much more than presenting and discussing certain statements.

Specifically, he believes that he has developed a theory of capitalism. He does not claim that he has constructed the complete edifice of a valid theoretical account of capitalism. But at least he has begun the task. "Theory" he takes in a very ambitious way. Weber, Schumpeter, and Hayek have not developed a complete theory of capitalism, since none of these writers has a comprehensive account relating capitalism to other social, cultural, and intellectual trends. Marx has a theory of the required scope: *its* problem is that it is empirically false. Many of Marx's predictions (e.g., that the position of workers under capitalism would continually worsen) blatantly contradict the facts. The task confronting Berger, then, is to devise a theory that has the range of Marxism and that is also true.

To assess the success of Berger in attempting this Herculean labor, one question at once confronts us. What does Berger mean by a theory? The answer to this query leaps out at the reader of *The Capitalist Revolution*. Berger again and again states that a theory must be empirical, i.e., it must advance falsifiable propositions. He states, e.g., "I want to stress, as emphat-

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Review of Peter Berger, *The Capitalist Revolution* (New York: Basic Books, 1986).

ically as I can, that each one of these propositions is to be understood as a hypothesis within an ongoing empirical inquiry . . . each proposition is, in principle, falsifiable" (p. 8, emphasis removed).

In contrast, he scorns "a priori" theorizing. He ironically notes that he has no grasp of the "inner logic of history" (p. 9). Causal relations between social phenomena cannot be deduced by logic, but must be discerned by observation of the real world. One can hardly help but note that Berger's argument in favor of empiricism in theory construction has proceeded in a highly a priori fashion. How does Berger *know* that no causal relation can be established without reference to experience? Does he think (this would *not* be self-contradictory) that he can show by a priori argument that no a priori argument can establish a causal relation? If he thinks this, what is the argument? None is offered.

Or is it, perhaps, that Berger thinks that it can be established empirically that no causal relation can be known a priori? But how could this be shown? All that one could show empirically is that various attempts to argue for such an a priori relation have failed. But this would not show that no future attempt to discover such a relation *must* fail. Also, even if it *were* the case that no *argument* could establish an a priori causal relation, it would not follow that no relations of this type exist. Nor would it follow from the fact, if it were one, that no argument could establish an a priori causal relation that we could not know that a proposition asserting such a relation was true. Perhaps there are some a priori causal propositions that are simply recognized to be true rather than proved by argument.

With some justice I might be accused of reading too much into Berger's claim. Probably all that he means is that in social science he does not think a priori theorizing is very successful. If so, there is one obvious counterexample he needs to confront. Austrian economics proceeds in exactly the way Berger rejects: its praxeological method, as carried on most notably by Mises and Rothbard, deduces propositions from self-evident axioms. Many of these propositions state causal relations, yet no claim is made that these propositions need to be established by testing. Yet Austrian economics seems a very powerful theory indeed; unless Berger can find some error in it, his view about theory in social science fails.

Oddly, Berger seems not only aware of Austrian economics but appreciative of some of its conclusions. He cites with admiration Mises' demolition of the pretensions of market socialism (pp. 188–89). (That he misdates Mises' argument by ten years because he gives the date of the English translation as the date of the original is a point only someone guilty of arrant pedantry would mention, so I shall not speak of it.) Does he not know that Mises' argument is a priori, not empirical?

But let us for the moment pass by these strictures and assess Berger's presentation simply as an empirical theory. As we have said, he endlessly

reiterates that a scientific proposition must be falsifiable. Presumably he has learned this from Karl Popper, but he has ignored another aspect of the *Logic of Scientific Discovery.*

Popper makes in that work a valuable point that even those who reject his empiricism should accept. A good scientific theory should be daring in its claims. It should enable us to arrive at surprising conclusions: a mere summary of what we already believe is not a good theory. Further, aside from the theory's predictions, a *theory* must be just that—it must be a body of statements *explaining* some aspect of the world, not merely describing it.

An example will clarify this point. Suppose someone claimed to have arrived at a theory of the place of professional sports in modern society. Imagine his theory consisted of the following propositions: 1. Some sports are more popular than others. 2. A few athletes make very large salaries. 3. More men than women are professional athletes. and 4. Propositions 1, 2, and 3 will continue to be true in the near future. Surely someone who presented this as a theory would convict himself of not understanding the nature of science. A collection of unrelated commonplaces is not a theory.

Judged by this hardly demanding standard, Berger's book does not offer a theory at all. Each of his fifty propositions simply lists some fact about the present or past and predicts that the trend that the fact mentioned implies will continue to prove true in the future. A few examples will illustrate Berger's procedure. His first proposition is: "Industrial capitalism has generated the greatest productive power in human history" (pp. 36 ff). Very good; but this is no more a theoretical statement than is, "Berger does not understand the meaning of the term *comparative advantage* in economics." Both are perfectly true (the second will be evident to any reader of chapter 7); but neither is a theory.

Again, consider "42. There is an intrinsic linkage between socialism and economic inefficiency." This sounds much better: if Berger argued for this in the style of Mises, he would be proving a very significant theoretical statement. But he does no such thing. Instead, he has merely noted that existing socialist countries have a great many economic problems and predicted the continuance of this trend for the future. Berger no doubt deserves credit for making this statement, since so obvious a truth seems beyond the mighty minds of most of his sociologist confrères. But seeing this hardly makes one a theorist, much less one who has surpassed in comprehensiveness Weber, Schumpeter, and Hayek.

It is, however, not altogether the case that *all* of Berger's theoretical propositions are commonplaces that Berger predicts will continue to prove true in the future. There is a technical flaw that makes several of the propositions false. In an effort to avoid begging the question in favor of private property, Berger defines capitalism as "production for a market by enterprising individuals or combines with the purpose of making a profit" (p. 16). He does

this not because he opposes private property; quite the contrary, he later contends that private property is necessary for an effective market economy. But he wishes the latter proposition to be an *empirical* one—again that blessed word!—and thinks that if he defined capitalism so that it involved private ownership, the connection he postulates would be unempirical. He has overlooked the fact that on *his* definition of capitalism, a number of his propositions become false. As he rightly points out, market socialism is not a very efficient economic system. But if market socialism is a type of capitalism, as Berger's definition allows, then it is untrue, e.g., that "27. Capitalist development is more likely than socialist development to improve the material standard of life of people in the contemporary Third World, including the poorest groups." This is both true and well said about capitalism as normally defined, i.e., as involving private ownership of the means of production. Further, I think it is this that Berger actually means to be talking about. But, using his own definition, what he actually says is false, since there is no reason to think that market socialism will aid the development of the Third World. Nor is it true that "15. The new knowledge class in Western societies is a major antagonist of capitalism" using Berger's definition. Many of the members of that class strongly support market socialism. Berger once more has not succeeded in saying what he obviously wishes to say.

Our impression of Berger's logical ability cannot rise when we note that he also says that the term *market socialism* is analogous to "circular square." If the concept of market socialism is logically contradictory, why does Berger make room in his definition of capitalism for a regime involving a market but no private ownership? That just *is* market socialism. I leave as an exercise for the reader the detection of the elementary fallacy in Berger's contention that if capitalism were defined so as to involve private property, the link between private ownership and efficiency would be made true by definition rather than empirically discovered.

Berger's difficulties with philosophy are not yet over. Although almost all his propositions support the superior productivity of capitalism over socialism, he rightly points out that in themselves the propositions are value-free. Someone who does *not* want economic efficiency will obviously not consider it an advantage of capitalism that its rivals are inefficient. Berger himself does support capitalism, however, and, in his last chapter (p. 218ff), he compares capitalism and socialism according to certain values that he thinks many readers will share and that he apparently holds himself. With the list of values, and with his comparisons, in which capitalism emerges as the easy winner, we in general have no serious quarrel. One wonders, however, why Berger accepts without question the assumption that income equality is a value—he generally speaks of movement toward income equality as movement in a "better" direction.

The main problem with Berger's approach to value lies elsewhere than in

his comparison of capitalism and socialism. It is that for him, values are arbitrary assumptions (pp. 217–18). Thus, the fact that capitalism encourages the growth of individual freedom plus the additional fact that socialism leads to bureaucratic control and dictatorship are *not* proof that capitalism is objectively better than socialism. These facts lead to procapitalist conclusions only if one accepts the value of freedom. Berger unfortunately gives no argument for this familiar logical positivist thesis. Though this is not the place to argue against it, surely Berger should possess the minimal acquaintance with the current state of philosophical literature that would have sufficed to inform him that his view of values is highly controversial and cannot be assumed without argument. Just as a sample of the type of difficulty Berger's view leads to, does it really make sense to say "My highest value is irrationality, and I thus consider good whatever is irrational"? On Berger's approach, this postulated "value" is as valid as any other.

After these negative remarks, I hope it will not be considered hypocritical if I say that Berger's propositions in general express much sound sense. Although the productivity of capitalism over socialism, as well as the totalitarian tendencies of the latter system, should be obvious to everyone, unfortunately they are not. If anyone needs a good summary account of these facts and others of a similar kind, he will find it in Berger's book. The chapter "East Asian Capitalism: A Second Case" is especially informative.

The book, though, is not without its fair share of mistakes. From Berger's discussion on p. 53, one suspects he has temporarily forgotten that nonnobles could join the aristocracy under the Old Regime. The Duc de Saint-Simon (whom Berger mentions on the same page) for example, was the grandson of a commoner. Further, the author gives entirely too much credit to the pessimistic interpretation of the early Industrial Revolution (p. 41); he wrongly accepts the thesis of James Burnham that legal ownership and functional control are separated in the modern corporation (pp. 56, 225); and he fails to see the point so well brought out by Mises' short *Bureaucracy* that large corporations in a market system do not operate in a similar manner to government offices (p. 56). In view of the many anticapitalist myths prevalent among what Berger calls the "knowledge class," one must say in conclusion that, in spite of its errors and theoretical inadequacies, Berger's book is better than most. He can at least recognize a truism when it stares him in the face.

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