



Should Austrians Scorn General-Equilibrium Theory?

LELAND B. YEAGER

Austrian economists try to explain how a whole economic system functions. They do not focus narrowly on the circumstances of the individual household or the geometry of the individual firm. They investigate the coordination of the mutually influencing yet separately decided activities of many millions of individual units;¹ they investigate general interdependence.

General equilibrium is a somewhat narrower concept. (“GE” is a convenient abbreviation for both “general equilibrium” and, as context requires, general-equilibrium *theory* or *approach*.) By GE I mean work by and in the tradition of Léon Walras, Vilfredo Pareto, Gustav Cassel, Gerard Debreu (1959), Robert Kuenne (1963, 1968), Kenneth Arrow and Frank Hahn (1971), and others. Distaste for GE among Austrian economists is familiar, as it was among Chicago economists such as Milton Friedman and George Stigler (who assumed that it somehow stood in rivalry with Marshallian partial-equilibrium analysis). Austrians sometimes state explicit reasons for their scorn, but often they take the reasons as too well known to need repeating.² I myself have been accused of a GE mindset in a context that takes such a mindset for granted as a bad thing. (Salerno (1994, pp. 115–120))

Examples of scorn

Jesús Huerta de Soto provides an example of scorn in his 1992 Spanish book on socialism, economic calculation, and entrepreneurship. It is an excellent and insightful book, apart from some methodological preaching. Huerta de Soto regrets

the negative effects that mathematical formalism and the pernicious obsession with analyses based on full information and on equilibrium have had on the development of our science. It is likewise necessary to abandon the functional theory of price determination and replace it with a *theory of prices* that explains how these are established dynamically as the result of a sequential and evolving process driven by the force of the entrepreneurial function, that is, by the human actions of the actors involved, and not by the intersection of mysterious curves or functions lacking any real existence, since the information

¹ Austrians pursue a line of research marked out by Adam Smith, trying “to explain how a system of ‘Natural Liberty’, a market economy based upon private ownership and the self-interested pursuit of utility and profits, could become coordinated in such a way that it generates ever-expanding circles of productivity, efficiency and growth” (Boettke and Prychitko (1998, p. x)).

² Reasons are reviewed by Boettke and Prychitko (1998) and in several of the articles reprinted in the volumes that they edited. Their Introduction, those articles, and the present article reinforce and supplement each other.

necessary to formulate them does not exist even in the minds of the actors involved. (Huerta de Soto (1992, pp. 34–35))

Jack High (1994) provides another example. Especially since World War II, he says, mainstream economists shifted their attention from actual market prices mainly to their hypothetical counterparts in equilibrium. Those economists could say much about how producers and consumers would react to given prices but little about how prices were formed and adjusted. GE existence proofs supposed that producers and consumers were maximizing with respect to “given” prices. To dodge the question of how prices reach their equilibrium values, the theory brought in a *deus ex machina*, a fictional economywide auctioneer who somehow achieves this result.³ “The fundamental motivating force of economic theory was absent from the theory of price formation.” (High (1994, pp. 151–152), quotation from p. 152)

High invokes the authority of Robert Clower (1975) for a further verdict on GE. Although Clower does not classify himself as an Austrian, overlaps between his and Austrian views justify quoting him also.

To argue that neo-Walrasian theory has any bearing on the observable behavior of an economy actually in motion, we should have to regard it as providing a *complete* description of actual behavior rather than a *partial* description of *virtual* behavior—and that we surely cannot do. Strictly interpreted, neo-Walrasian theory is descriptive only of a fairy-tale world of notional economic activities that bears not the slightest resemblance to any economy of record, past, present, or future. It is science fiction, pure and simple—clever and elegant science fiction, no doubt, but science fiction all the same. (Clower (1975, 1986, p. 195))

More recently Clower noted

the meretriciousness of the economist’s notion of “equilibrium.” In every branch of physical science, “equilibrium” refers to a “balance of forces” [citations] such as might be associated with an olive resting at the bottom of a cone-shaped martini glass; and the word misleadingly conjures up analogous images when it is used by economic theorists. Strictly speaking, however, the “equilibria” that neowalrasian theory shows to exist are more correctly called *solutions* [to a system of implicitly-defined algebraic equations]. So understood, the important achievements of neowalrasian equilibrium theory lose much of their apparent lustre, which should in any case adhere to the mathematical geniuses Gauss and Brouwer whose work underlies all modern existence proofs. (Clower (1995, p. 317); the eight words in the second pair of brackets are Clower’s.)

Clower justly objects to how some economists have stretched the concept of equilibrium. Robert Lucas and Thomas Sargent (1978, p. 58) appeared to congratulate themselves on the

³I cannot find mention of the auctioneer in Walras’s own writings; and Donald Walker, the leading living U.S. expert on Walras, assured me (in conversation) that the auctioneer indeed does not appear in them. That prodigious figure is the invention of later theorists trying to make the theory tighter.

“dramatic development” that the very meaning of the term “equilibrium” had undergone. Sargent (interviewed in Klamer (1983, pp. 67–68)) expressed satisfaction with “fancier” notions of equilibrium, “much more complicated” notions of market-clearing, and “fancy new kinds of equilibrium models”. Well, to recommend destabilizing the meaning of words, subverting communication, is the kind of methodologizing that needs to be dragged into the open and inspected. If what economists “with proper sensitivity training” call the “computable dynamic general equilibrium model” really is the real-business cycle model, as Bernard Saffran (1995, p. 231) suggests, then I share contempt for it.

Keeping scorn focused

Some strands of GE do perhaps deserve scorn or neglect. But let us keep our scorn well focused. The problem lies not with the theory’s central ideas but with some abuses committed in its name. These include parades of sham rigor and mathematical games that make no contact with reality (cf. Buchanan (1988), Allais (1989)). More specifically, they arguably include obsession with the mathematical requirements for existence, uniqueness, and stability of GE to the extent of crowding out attention to economic substance. (On the other hand, let the would-be mathematicians amuse themselves as they like, provided they not deceive other people about the significance of their efforts.) A related abuse is pushing the strongest-link principle, the tacit idea that a theory is as strong not as its weakest but as its logically most rigorous link (cf. Mayer (1993, pp. x, 57–63, 80, 127–130, and passim)). Still others are frontiersmanship and other varieties of tacit methodological preaching (cf. my 1995 article).

The correct response to abuses is to pinpoint them. If we appraise a doctrine or approach or technique by whether or not it might be abused, misinterpreted, distorted, set aside, or taught with unduly narrow and exclusive emphasis, we are putting it to a test that no doctrine can pass.

GE is often charged with being static and being preoccupied with an all-around equilibrium in which all plans mesh and all prices, being at their market-clearing levels, convey exact information. The services of the mysterious auctioneer leave no scope for entrepreneurial activity and other actual market processes. The theory ignores complexity, uncertainty, judgment, creativity, and enterprise.

Complementary strands of theory

In a sense these complaints are correct. Of course formalized equilibrium theory does not teach us everything about economics, and perhaps not even the main ideas. No one known to me claims that it is the whole story. Of course GE leaves room for investigating the processes at work in the real world of disequilibrium. We cannot learn everything at once, but we can learn something from a static view and then go on to dynamics and process. The two strands complement each other; GE affords insights into general interdependence. We can better understand market pressures and processes if we have an idea of the state toward which they are working (if indeed they are equilibrating rather than disequilibrating) and if this state helps us, by contrast, to contemplate *disequilibrium*, the nonmeshing of plans. Ludwig von Mises recognized the usefulness of the “evenly rotating economy” as

an analytical benchmark (1966, pp. 244–250 and *passim*). We need not suppose that the world ever actually reaches equilibrium; we can remain duly scornful of theories (like a recently fashionable brand of macroeconomics) that treat equilibrium-always as a substantive proposition.

I taught a course in GE at the University of Virginia for several years flanking 1960. The professors who had named the course, years earlier, apparently thought that GE was a fancy name for macroeconomics, but I took the course title at face value. Large doses of Austrian economics, including Mises's and Hayek's insights into socialist calculation, were helpful, I think, in rescuing GE from the sterility of its worst versions. I never saw any necessary tension between GE and Austrian economics.

Further claims for GE

1. GE gives us a view of the economic system as a whole. Analysis of the behavior of individual firms and households has little point unless it fits into understanding the system (cf. Eucken (1954, pp. 220–221)). For example, the charge that a monopoly firm's output is too small has little meaning unless it is related to the economywide allocation of resources.

2. Especially when bolstered by contemplation of a centrally administered economy, GE illuminates the complexity of the task performed by entrepreneurs and other agents, guided by the price system. It illuminates the logic of decentralized decisions for the sake of a fuller use of knowledge, with prices communicating signals and incentives.

3. Contemplating the immense task ideally performed by economywide coordinating processes underlines the attendant scope for things to go wrong. (Compare medical students' attention to the physiology of a healthy body.) The surprising thing is not so much that coordination sometimes fails as that the processes work at all. Failure is most evident in depression, when people keenly desire to trade with one another (although more through multilateral than bilateral exchanges), yet run into frustration. Alerted to the coordination problem, we can better look for disruptive conditions or events.

4. GE illuminates the real significance of the money prices, costs, and incomes confronting households, firms, and governments. It explains opportunity cost in a way not possible with partial analysis alone. All too commonly, opportunity cost is defined in the context of choices made by a particular decisionmaker: the cost of his chosen course of action is the next-best course that he thereby forgoes. That definition, bringing to mind the considerations and even agonies involved in making decisions, seems familiar to the layman. This deceptive familiarity trivializes the concept. What requires the economist's expertise and the student's alertness to learning something new is opportunity cost in a deeper sense—the wider social significance of money cost. Misunderstanding still abounds. How often do we hear complaints about desired production and services being curtailed or worthwhile projects shelved out of grubby concern with mere money cost? (Even the epithet “greed” gets tossed around.) What needs repeated explanation is how money costs reflect the subjectively appraised values of the other outputs and activities necessarily forgone if resources are withheld from them for the sake of the particular output or activity in question. What further needs explanation is how money costs and prices transmit information and incentives to decisionmakers. (This is not to say that the information conveyed about opportunity cost

is completely accurate; for one thing, real-world prices are not GE prices. However, the market process, including entrepreneurial activity, works to weed out gross inaccuracies.)

Explaining opportunity cost in the nontrivial sense is not easy. Even Irving Fisher (1930, 1970, pp. 485–487, 534–541) astonishingly denied that one particular price, the interest rate, measures any genuine opportunity cost. Precisely because the expository task is such a demanding one, it is important to beware of deceptively simple and familiar formulations and examples. This is what a GE framework helps to do. It helps portray the variety and diffusion of sacrifices of alternative goods, intangible or subjective as well as tangible, that the money cost of a particular good measures.

5. The GE framework is a necessary background for special strands of theory. Monetary theory is closely bound up with concepts of general interdependence, since money is the one good traded on all markets. GE helps show how price-level determinacy presupposes a nominal anchor, provided either by a commodity standard (or foreign-exchange standard) or by quantitative regulation of a fiat currency. In the theory of saving, capital, and interest, GE helps us understand conceptual distinctions even between magnitudes that are the same in equilibrium (apart from differences in risk, liquidity, and the like), such as the interest rate on loans, rates of return on capital goods and land, the *agio* of present over future goods, subjective marginal rates of time preference, and the technological marginal productivity of investment in capital goods. It shows the error of quarreling over supposedly rival partial-equilibrium theories of interest.

6. GE triggers alertness to consequences of particular actions, including ones remote in space and time; it alerts one to the Law of Unintended Consequences (cf. Meade's primary, secondary, and tertiary effects in his 1955, esp. chaps. XIII, XXXI, XXXII).

Here are some examples of repercussions that GE helps illuminate: Why monetary expansion lowers interest rates only transitionally; how monetary expansion affects the price level; why survey results on the supposed interest-insensitivity of investment decisions do not prove that monetary policy is ineffective (cf. Wicksell's cumulative process). GE helps us understand how the strength of some relation about which we have inadequate direct empirical evidence may be judged indirectly by empirical evidence on something else that is related to the first, even if not in an obvious way. One example involves import and export supply and demand elasticities and purchasing-power parity.

Avoiding fallacies

My next two claims, numbers 7 and 8, are interrelated and, unfortunately, lengthy. They concern avoiding fallacies.

7. GE analysis helps clarify the distinction between data and variables of the economic system. (More exactly, the distinction pertains not so much to objectively existing reality itself as to analysis of a particular aspect of it, or to a particular strand of analysis. For example, population may count among the givens in a particular strand of analysis yet count among the variables to be explained in another strand.) GE emphasizes, in particular, the distinction between variables that get determined, on the one hand, and “wants, resources, and technology” on the other hand. (“WR&T” also includes social and legal organizations

and their rules; cf. Eucken (1950, pp. 81, 202–203), Vining (1984)). GE shows the error of asking about the effects of a change in a particular magnitude when that magnitude is a determined variable and not a given. It is a mistake, for example, to ask how a change in the interest rate will affect investment or total spending. The question should be rephrased to ask about further consequences of whatever change in the data underlies the interest-rate change (e.g., a change in the productivity of investment, in thrift, or in monetary policy). The error is similar to that of asking about the consequences of a change in the price of wheat whose cause goes unspecified. Nowadays, similarly, we have been hearing much ignorant chatter about the consequences of a deficit in foreign trade or on current account.

Of course, individual-experiments can be legitimate if performed in the proper context. What is a dependent variable for the economy as a whole may be an independent variable or datum for individual units and aggregates of them. Something that is not a datum for the economy as a whole may legitimately be taken as a datum in an individual-experiment (Patinkin (1965) develops the distinction between individual- and market-experiments). But it is important to keep the distinction clear. (Some examples of making the distinction would involve demand schedule and quantity demanded; Friedman's "Marshallian" demand curve, supposedly purified of the income effect; the demand for money; and relations between investment and income.)

It can be legitimate to ask about the consequences for the economy as a whole of a variable's accidentally departing from or arbitrarily being set away from its GE value (even though some theorists, e.g., Archibald and Lipsey (1958) and, more recently, the New Classical macroeconomists, have been mistakenly unwilling to consider disequilibrium). We might suppose such a departure to test for stability of equilibrium, to show inconsistency of plans in a disequilibrium situation, or to show forces at work and reasons why such a disequilibrium could not last. But the theorist must know what he is doing. Although it can be legitimate to postulate a specified kind of departure from equilibrium for a particular analytical purpose, the theorist must not imagine a freedom to postulate just any old change in a variable so as to trace out the consequences for a supposed different equilibrium. As for postulating a price floor or ceiling or a change in the money-supply behavior of the authorities, that can be regarded as a change in one of what are regarded as ultimate data of the system. (Implicitly I am referring to Buchanan (1958) and Eucken (1950, pp. 218–219).)

7. GE shows the error of imagining one-way causation of economic variables when mutual determination is at work. It is a mistake to ask whether price depends on cost or on marginal utility, whether the interest rate depends on the marginal productivity of capital goods or of investment or on a subjective discount of future relative to present goods, and whether the wage rate depends on the marginal value product of labor or on labor's marginal disutility or on the marginal utility of alternative activities forgone to engage in labor.

Avoiding false presuppositions about causality helps give insight into the *identification problem* of econometrics. For example, does a pattern of relations between various prices and quantities of some product reflect a demand function, a supply function, a confused mixture of their properties, or what? We must ask what differences in wants, resources, and technology underlie the different price-and-quantity points. Further such examples concern relations between a country's balance of payments and exchange rate, monetary

policy and free reserves, and the interest rate and monetary policy or investment or thrift. Did a change in the interest rate come from the demand-for-credit side or the supply-of-credit side, perhaps as influenced by monetary policy?

Recognizing mutual determination does not preclude a causal-genetic tracing out of response to a particular change in the situation. Compare tracing out the consequences of adding a new ball to Marshall's bowl or a new piece to a Calder mobile.

8. GE helps avoid many specific fallacies sometimes abetted by the partial-equilibrium approach. Some examples follow.

- (a) The above-mentioned fallacy about interest-sensitivity and monetary policy.
- (b) The purchasing-power argument for artificially boosting particular wage rates (or product prices). This ancient argument illegitimately generalizes from a particular firm or industry. If—if—the conditions for an *inelastic* derived demand for its labor are satisfied, then a wage-rate increase will indeed increase the purchasing power of the firm's or industry's employees. But what happens to other factor shares? Furthermore, widespread wage increases lead into questions of monetary theory, which cannot be handled by partial analysis alone.
- (c) The pro-efficiency "shock" effect supposedly achieved by boosting wage rates through union or government action. Insofar as the greater efficiency is achieved by greater capital investment, either less capital formation is possible elsewhere or else the "shock" somehow promotes saving, in which case the argument ought to explain how.
- (d) The economies-of-scale case for advertising or consumer trading stamps. Expanded scale in some operations means shrunken scale in others, unless underemployment of resources prevailed and is somehow remedied by the advertising. What reason is there to suppose that advertising promotes the goods that particularly have economies of scale? Anyway, the argument ought to face up to this general-equilibrium question. If the argument depends on standardization, that ought to be made explicit.
- (e) The decreasing-cost/marginal-cost-pricing/consumer-surplus argument for subsidizing a particular industry or running it at a loss. Also to be considered are the conditions in industries from which resources are diverted, as well as the consequences of raising revenue for the subsidies.
- (f) Similarly, external-economy (including infant-industry) arguments for protection or subsidies for particular industries, or arguments for government finance of particular industries on the grounds that the government can borrow more cheaply than private enterprise, or arguments for credit allocation toward such industries. As GE teaches us, it is not enough to consider one industry or one aspect at a time.
- (g) The idea that government loan guarantees can promote (or rescue) desirable projects or activities at little or no cost to the taxpayers. The argument forgets that "capital"—or whatever we may call the resource whose price is the interest rate and that is further rationed by the decisions of loan officers and bond buyers—is a scarce resource whose diversion to some uses necessarily withholds it from other and possibly more highly desired uses.
- (h) Capital import-and-export arguments for trade interventions. In a developing country, protecting a particular industry will perhaps have a "tariff-factory" effect; but will

protection in general promote capital import in general? Agreed, admitting a particular product duty-free may encourage home firms to export capital to produce that good abroad, but it does not follow that removal of protection in general will promote overall capital export.

- (i) The fallacious argument for tariffs to the effect that our government collects taxes on incomes generated by domestic production of import-competing goods but not on incomes generated by producing imported goods abroad.
- (j) The real-bills doctrine about the absence of inflationary effect of money and credit created to finance productive activities, a fallacy that keeps getting independently reinvented in slightly different versions by incompetent amateur monetary theorists.
- (k) Merely superficial attention to secondary or “collateral” effects of a particular activity, such as supposed benefits to local business of a new highway or sports stadium, ignoring the diversion of resources from other places or activities.
- (l) A catchall category: other instances of the fallacy of composition and of policy arguments that unduly restrict attention to close and short-run effects to the relative neglect of more remote and long-run effects. GE promotes awareness that the wisdom of a particular measure cannot be judged solely by the intentions of those who recommend it. (This is one of the main themes of Eucken’s (1952), cf. Frederic Bastiat on “what is seen and what is not seen”.)

Equation systems

Fully supporting my many claims for GE would require a whole college course. Readers might well contemplate, however, one or more of the systems available in the literature that portray the economy as a whole in many equations and variables. Pondering such a system, purporting to describe what an economy would look like in a state of full coordination, helps one grasp the central fact of general interdependence. It helps one see how greater production of some goods and services requires lesser production of others and how, ultimately and subjectively, greater satisfaction of some desires costs lesser satisfaction of others. It helps one grasp the immensity of the coordination task that the price system works toward performing, although never completely and perfectly.

I doubt that anyone can fully appreciate GE without working his way through one or more such equation systems. While Gustav Cassel deserves criticism for presenting his simplification of Walras’s system (1967, chap. IV) without giving credit to Léon Walras, his system nevertheless has pedagogic merit. It envisages n goods and services. The quantity per time period demanded of each is a function of all n prices and is equal to the quantity supplied. Supply functions are represented by the conditions that the price of each good is equal to its cost of production, which in turn is equal to the sum of the prices times quantities of the factors of production required to produce one unit of the good. These technical requirements and the equilibrium quantities of goods permit calculating the total quantity demanded of each of the r factors, which in equilibrium is equal to the quantity available. Cassel shows just enough equations to determine the quantities of the various goods produced, their prices, and the prices of the factors of production.

In this first pass at a simplified equation system, Cassel assumes that the “technical coefficients” (the quantities of each factor required for the production of one unit of each good) are fixed parameters, as is the total quantity available of each factor. The total money expenditure of consumers on the purchase of final goods is also fixed. These simplifying assumptions can be relaxed, however, in ways represented by increasing the number of unknown prices and quantities to be determined, and increasing the number of equilibrium equations also, so that the system remains determinate.

Cassel justifiably claims that his

equations reveal the true nature of pricing, and the pricing process cannot be accurately presented in any simpler form. The demand for a product represents an attempt to attract certain factors of production to a particular use. Conflicting with this attempt are similar attempts in the form of demands for other products. There arises in this way a struggle for the relatively scarce factors of production, which is decided in the exchange economy by placing uniform prices on the factors, which prices in turn determine the prices of the products and thus form a means of effecting the necessary restriction of demand. The demand for a particular factor of production arising from the continuous demand for each particular product is totalled for each unit period, to form a total demand for that factor of production, ... which must, in a state of equilibrium, equal the given quantity of the factor of production. (p. 145)

In this passage and in the equation system it describes, Cassel thus provides a deep insight into the nature of cost, opportunity cost. He goes on to point out how his system portrays the interplay of both subjective and objective factors in price determination. As he says,

All these factors are essential in determining prices. An “objective” or “subjective” theory of value, in the sense of a theory that would attribute the settlement of prices to objective or subjective factors alone, is therefore absurd; and the whole of the controversy between these theories of value, which has occupied such a disproportionately large place in economic literature, is a pure waste of energy. (p. 146)

E.H. Phelps Brown presents a general-equilibrium equation system simple enough to be solved numerically, as it was even when Brown first published it in 1936, in the days before computers and even before electronic pocket calculators (though not before mechanical desk calculators). Nowadays, when computers and calculators remove so much grunt work, the value of exercises like Brown’s has increased. Much may be said for working one’s way not only through simplified systems but also through Walras’s *Elements* itself, that landmark in the history of economic thought.

It is easy to say that the points illuminated by GE are “obvious” and that its pretentious equations are unnecessary. Conceivably so. But are its critics quite sure that their acquaintance with GE does not help make those points seem obvious? Would they have grasped their full significance even without performing the exercises with equations?

Only rather simple mathematics is required for reaping the benefits claimed for GE. (Understanding work like Gerard Debreu’s is another matter.) This brings up a related

point. Quite a few Austrians maintain that mathematics is out of place in economics. But how can they be confident? Their not seeing how to do anything useful with it is no reason to suppose that no one else can use it any better. People with different personal abilities, backgrounds, and tastes legitimately pursue different research topics and employ different methods and styles of exposition. An approach lacking appeal to oneself may provide valuable insights to other persons. It is paradoxical for Austrians, especially those who like to expatiate on subjectivity and ineffability and the unpredictability of the future, to predict the usefulness of particular methods and to try practically to legislate on such matters.

Alain Enthoven, then applying economics in the Defense Department, testified to how overlearning or overstudy, as one might call it, can help clinch one's grasp of economic reality. The analytical tools that he and his colleagues used

are the simplest, most fundamental concepts of economic theory, combined with the simplest quantitative methods. The requirements for success in this line of work are a thorough understanding of and, if you like, belief in the relevance of such concepts as marginal products and marginal costs, and an ability to discover the marginal products and costs in complex situations, combined with a good quantitative sense. The advanced mathematical techniques of econometrics and operations research have not proved to be particularly useful in dealing with the problems I have described. Although a good grasp of this kind of mathematics is very valuable as intellectual formation, we are not applying linear programming, formal game theory, queuing theory, multiple regression theory, nonlinear programming under uncertainty, or anything like it. The economic theory we are using is the theory most of us learned as sophomores. The reason Ph.D.'s are required is that many economists do not believe what they have learned until they have gone through graduate school and acquired a vested interest in marginal analysis. (Enthoven (1963, p. 422))

Partial-equilibrium, process-oriented, and GE approaches are not necessarily rivals. Admittedly, only partial-equilibrium theory is "operational" in the Chicago sense of yielding fairly specific predictions, as of the consequences of a change in an excise tax. And even this admission goes too far; GE is not totally without operational application. Still, its main service is as a conceptual framework accommodating the more readily applicable strands of partial analysis.

True, the Walrasian system is formal. It is absurd to envisage solving a Walrasian system for numerical parameters of reality (*pace* Wassily Leontief's aspirations for his input-output system). "Walras' system was once correctly described as resembling a palace of no relevance to the housing problem" (Eucken (1950, p. 27)).

Concluding exhortation

GE is a major strand of, approach to, and integrating factor of the whole body of economic theory. A single correct body of theory is what all creative economists presumably strive for, even though probably no one ever will possess it complete and error-free. Reality is consistent with itself, and so must the correct theory of it be. To say so is not to deny the

value of different schools with their own favorite topics, approaches, research methods, and styles of exposition. A researcher can gain encouragement and stimulus from knowing that he has colleagues out there who are ready to read him sympathetically. They accord him a presumption—defeasible of course—that he is right. Thus, there is legitimate scope for the Austrian School, as for others.

But the Austrians should think of themselves as making their own distinctive contributions, critical as well as positive, to an emerging single correct body of theory. Their objective should be not to differentiate themselves from the mainstream in a hostile manner but rather to contribute to the mainstream and help steer it in the right direction. Correct economic theory does not come in distinct and incompatible brands, one for Austrians, one for Marxians, one for conservatives in the style of William F. Buckley and Russell Kirk, one for libertarians, one for left-wing liberals, and so forth. To suppose that it does is what Ludwig von Mises (1966, chap. III) eloquently condemned as “polylogism”.

References

- Allais, Maurice. (1989). Remarks at McGill University, Montreal, reported in *IMF Survey* (June):185.
- Archibald, G.C. and R.G. Lipsey. (1958). “Monetary and Value Theory: A Critique of Lange and Patinkin,” *Review of Economic Studies* 26, 9–17.
- Arrow, Kenneth J. and F.H. Hahn. (1971). *General Competitive Analysis*. San Francisco: Holden-Day.
- Boettke, Peter J. and David L. Prychitko. (1998). “Introduction: Varieties of Market Process Theory,” *Market Process Theories*, Vol. I (of two), pp. ix–xxvii. Cheltenham, UK, and Northampton, MA: Elgar.
- Brown, E.H. Phelps. (1936). *The Framework of the Pricing System*. London: Chapman & Hall, 1936 (Reprinted Lawrence: University of Kansas, Student Union Book Store, 1949).
- Buchanan, James M. (1958). “Ceteris Paribus: Some Notes on Methodology,” *Southern Economic Journal* 24, 259–270.
- Buchanan, James M. (1988). “Political Economy: 1957–1982.” Lecture of 20 April 1983, reprinted in Thomas Jefferson Center Foundation, *Ideas, Their Origins, and Their Consequences*. Washington: American Enterprise Institute, pp. 119–130.
- Cassel, Gustav. (1932). *The Theory of Social Economy*. Trans. from the fifth German edition of 1932 by S.L. Barron. New York: Harcourt, Brace (Reprinted New York: Kelley, 1967).
- Closter, Robert. (1986). “Reflections on the Keynesian Perplex,” *Zeitschrift für Nationalökonomie* 35, July 1975, pp. 1–24. Reprinted as chapter 14 in his *Money and Markets*. In Donald A. Walker (ed.), New York: Cambridge University Press, paperback.
- Closter, Robert. (1995). “Axiomatics in Economics,” *Southern Economic Journal* 62, 307–319.
- Debreu, Gerard. (1959). *Theory of Value*. New York: Wiley.
- Enthoven, Alain C. (1963). “Economic Analysis in the Department of Defense,” *American Economic Review* 53 (May), 413–423.
- Eucken, Walter. (1950). *The Foundations of Economics*. Trans. by T.W. Hutchison. London: Hodge.
- Eucken, Walter. (1952). *Grundsätze der Wirtschaftspolitik*. Tübingen: Mohr.
- Eucken, Walter. (1954). *Kapitaltheoretische Untersuchungen* (2nd edition). Tübingen: Mohr.
- Fisher, Irving. (1930). *The Theory of Interest*. New York: Kelley (Reprint 1970).
- High, Jack. (1994). “The Austrian Theory of Price.” In Peter J. Boettke (ed.), *The Elgar Companion to Austrian Economics*, pp. 151–155. Aldershot, UK and Brookfield, VT: Edward Elgar.
- Huerta de Soto, Jesús. (1992). *Socialismo, Cálculo Económico y Función Empresarial*, Madrid: Unión Editorial.
- Klamer, Arjo. (1983). *Conversations with Economists*. Totowa, NJ: Rowman & Allanheld.
- Kuenne, Robert E. (1963). *The Theory of General Economic Equilibrium*. Princeton, NJ: Princeton University Press.
- Kuenne, Robert E. (1968). *Microeconomic Theory of the Market Mechanism: A General Equilibrium Approach*. New York: Macmillan.

- Lucas, Robert E., Jr. and Thomas J. Sargent. (1978). "After Keynesian Macroeconomics," *After the Phillips Curve: Persistence of High Inflation and High Unemployment*, pp. 49–72. Boston: Federal Reserve Bank of Boston.
- Mayer, Thomas. (1993). *Truth versus Precision in Economics*. Aldershot, UK and Brookfield, VT: Elgar.
- Meade, James E. (1955). *Trade and Welfare*. London: Oxford University Press.
- Patinkin, Don. (1965). *Money, Interest, and Prices* (2nd edition). New York: Harper & Row.
- Salerno, Joseph T. (1994). "Reply to Leland B. Yeager," *Review of Austrian Economics* 7(2), 111–125.
- Saffran, Bernard. (1995). "Recommendations for Further Reading," *Journal of Economic Perspectives* 9 (Fall), 227–234.
- Vining, Rutledge. (1984). *On Appraising the Performance of an Economic System*. New York: Cambridge University Press.
- von Mises, Ludwig. (1966). *Human Action* (3rd revised edition). San Francisco: Fox & Wilkes.
- Walras, Léon. (1954). *Elements of Pure Economics*. Trans. by William Jaffé. Homewood: Irwin.
- Yeager, Leland B. (1995). "Tacit Preachments are the Worst Kind," *Journal of Economic Methodology* 2, 1–33.

General Equilibrium Theory 1 2 1. General Equilibrium Analysis Documents. Equilibrium Relative Humidity-Equilibrium Moisture Content Documents. Demand, Supply, and Equilibrium - Loudoun County Equilibrium Equilibrium price = market clearing Supply/Demand/Equilibrium Demand, Supply, and Equilibrium Documents. Chemical Equilibrium Foundation of equilibrium Expressing equilibrium: Equilibrium constants Upsetting equilibrium Le Chatelier Documents. Equilibrium Reactions and Equilibrium Constants(1) Documents. About us.