MARKET THEORY AND THE PRICE SYSTEM

THE COLLECTED WORKS OF ISRAEL M. KIRZNER

The Economic Point of View

Market Theory and the Price System

Essays on Capital and Interest

Competition and Entrepreneurship

Austrian Subjectivism and the Emergence of

Entrepreneurship Theory

The Essence of Entrepreneurship and the Nature and

Significance of Market Process

Competition, Economic Planning, and the Knowledge Problem

Discovery, Capitalism, and Distributive Justice

Reflections on Ethics, Freedom, Welfare Economics,

Policy, and the Legacy of Austrian Economics

Ludwig von Mises: The Man and His Economics

Market Theory and the Price System

Edited and with an Introduction by

PETER J. BOETTKE and FRÉDÉRIC SAUTET



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B'EZRAS HASHEM

To Ludwig von Mises

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INTRODUCTION TO THE LIBERTY FUND EDITION

Market Theory and the Price System was published in 1963 as Professor Israel M. Kirzner's first (and only) textbook. It was also his second book publication after that of *The Economic Point of View*, three years earlier. Market Theory and the Price System tackles the common subject of price theory, which was part of the training of young economists at the time (and still is). While Professor Kirzner's textbook filled a gap in the market by presenting an integrated view of Austrian price theory in contrast to the Chicago approach, the book never became a commercial success, which is not surprising considering the intellectual atmosphere when it was published.

Israel Kirzner has described his graduate education in economics at New York University (NYU) as one of confusion. One night a week he learned standard price theory through George Stigler's *Theory of Price* (1946), and on another night of the week he learned about the market process from Ludwig von Mises and his classic work *Human Action* (1949).¹ Both approaches were diametrically opposed to the macroeconomics of Keynesianism, which was also taught at the time; thus, by virtue of that opposition alone, the two works seemed to be intellectually aligned. However, there were also subtle differences in emphasis and especially style of presentation that gave Kirzner food for thought.

According to Kirzner himself, he started out his career as a theorist only to learn that in the eyes of his colleagues he was a historian of economic thought. Kirzner was (and remained to the end of his teaching career at NYU) an economic theorist. He specialized in market theory and the price system. As his work matured, he came to focus primarily on the role that the entrepreneur played in the market economy. *Market Theory and the Price System* was his first systemic attempt to examine how the logic of action enables us to understand the workings of the market economy.

I. In fact, Kirzner has stated on more than one occasion in lectures that the first words he heard Mises speak were "the market is a process." He describes the experience as intellectually jarring: He understood what it meant to say "the market was a place," but what could it possibly mean to say that "the market is a process"? Answering that question would drive Kirzner throughout his career.

The book, originally published in 1963 (with no subsequent editions), had been part of a series of works by the Volker Fund to make sure that economic teaching did not come completely under the sway of Keynesianism.² Published one year earlier, in 1962, Murray Rothbard's *Man, Economy, and State* provided a systemic treatise on the principles of economics. In contrast, Kirzner's work was more or less an intermediate-to graduate-level textbook in price theory. Thus, read in tandem, these books represented an Austrian school of economics alternative to the approach of both the Chicago School of Milton Friedman and George Stigler and the Massachusetts Institute of Technology–Harvard economics of Paul Samuelson. The fate of both books in the marketplace of economics texts in the 1960s is indicative of the state of economic research and teaching at the time. The technical nuances of the approach of Rothbard and Kirzner were missed.³

However, even within the Austrian camp, some disagreement arose over the way to present price theory. In a memorandum to the Volker Fund dated December 1961, Rothbard raised critical objections to Kirzner's book.⁴ Rothbard argued that "What Prof. Kirzner had done is, so to speak,

- 2. For a discussion of the role of the Volker Fund in economic research and education from the 1940s through the 1960s, see James Piereson (2005), "Funding a Movement," *The Insider.*
- 3. The well-known Old Institutional School economist C. E. Ayers (1963), in reviewing Kirzner's book in the American Economic Review, argues that the book fails in its task as a manual of technical price theory but perhaps succeeds as an ideological tract intended to instill in its readers a high esteem for the free market economy. Ayers missed the subtle economic argument concerning the adjustment processes of the market economy that were emerging from Kirzner's work. A lesser professional figure, Victor Heck (1963), reviewed Rothbard's Man, Economy, and State in the American Economic Review and dismissed the book as dogmatic and behind the times technically. In both reviews, it should be pointed out, the reviewers went out of their way to highlight the intellectual inspiration both Kirzner and Rothbard drew from Ludwig von Mises. It is as if mentioning Mises was almost enough circa 1960 to discredit an economic thinker. To get a good sense of this professional consensus of the times, see David Winch's (1964, 480, 482) review of Man, Economy, and State from the Economic Journal. "As befits a disciple of Ludwig von Mises," Winch writes, "Professor Rothbard has written a book that is both nostalgic and tendentious." Winch describes the book as a dogmatic apology for the free market that is "more akin to systematic theology than to economics."
- 4. "Comments on Israel M. Kirzner's MS: Market Theory and the Price System," Rothbard Archives, Ludwig von Mises Institute, Auburn, Alabama.

to carry water on both shoulders." *Market Theory and the Price System*, by Rothbard's reading, was fundamentally a Stiglerian work in the refinements of price theory infused here and there with Austrian insights and obligatory qualifications. Rothbard failed to see the subtle argument that was emerging from Kirzner's analysis of the market system.

Kirzner's textbook sought to communicate the basic insights from Philip Wicksteed and the founders of the Austrian School of Economics to a new generation of economic students. As he puts it in the preface: "Whatever the author may have learned from Marshall, Edgeworth, and J. B. Clark, this book probably will reveal that he has learned more from Menger, Böhm-Bawerk and Wicksteed" (1963, vii). The basic idea of the book was to utilize the tools of economics reasoning to explain the market process. Kirzner states his intent clearly:

The approach adopted in this book views the market as a process of adjustment. In this process individual market participants are being forced continually to adjust their activities according to patterns imposed by the activities of others. Market theory then consists essentially in the analysis of these step-by-step adjustments and of the way the information required for these adjustments is communicated. Equilibrium positions are not, as in other books, treated as important in themselves. They are rather seen as merely limiting cases where the market process has nothing further to do, all activities being already mutually adjusted to the fullest extent. (1963, vii)

This is what Rothbard ironically misunderstood in his "water on both shoulders" comment.⁵ The equilibrium properties of markets as discussed in Stigler (and also Kirzner) are not logically wrong. However, they hold only when the mutual adjustments through exchange have been fully realized and the plans of the different agents in an economy are perfectly coordinated. Still, this knowledge of the limit theorems of the

5. We say "ironically" because it is mainly through Rothbard's writings that we learned that economics is not a science of exact prediction, but one of tendencies and directions. The propositions of the "evenly rotating economy" in Rothbard's Man, Economy, and State serve the same intellectual purpose as the Stiglerian propositions of optimality in consumer choice and producer decision do in Kirzner's Market Theory and the Price System. In both books, the modern reader in economics can see how this emphasis on process would later be refined into a fuller understanding of the market as a dynamic process of adjustment through entrepreneurial competition.

market system is vital to understanding the tendencies and direction of the processes of adjustment. However, the bulk of economic explanation must be on the continual adjustment of market activity that is guided by relative price movements and the lure of pure economic profit and the penalty of loss. The market economy is defined in Kirzner's system not by a state of affairs, but instead by an intricate matrix of human interdependencies in the realm of exchange relations and production decisions.

Central to *Market Theory and the Price System* is coordination—the critical question of any economic system. It is not just a matter of the allocation of scarce resources, but the coordination of activities such that the most willing demanders and the most willing suppliers have their plans dovetail through mutually beneficial adjustments through exchange. The unique framework Kirzner develops for microeconomic analysis, following Mises and Hayek, opens up for examination error in decision making, entrepreneurial profit, and competition as a process of discovery and learning. As Kirzner explained in an interview in 2006, in the book he was trying to bridge a gap between the neoclassical view of the market and what he understood Mises as saying about the market process. No one at the time really grasped Mises's view of entrepreneurship or what Hayek meant regarding the role of knowledge.

For the reader of *Market Theory and the Price System* familiar with Kirzner's later writings, the critical chapters to study carefully are 7 and 11 (especially 7). In both of these chapters we see the seeds of his more mature argument about the disequilibrium foundations of equilibrium economics and the anticipation of his theory of the competitive entrepreneurial market process. Chapter 7 attempts to describe the market as a learning process and to provide an explanation for equilibration. Price theory did not explain the causation of price changes, it just assumed it. Kirzner endeavored, along Hayekian lines, to make Mises's insights on entrepreneurship and the market process available to the modern reader of microeconomic theory. One must realize the magnitude of this endeavor—something that even Rothbard failed to see.

ACKNOWLEDGMENTS

We would first like to thank wholeheartedly Israel Kirzner for his unparalleled contribution to economic science. Kirzner's research program has deeply enriched the discipline and has shed light on some of economics' most difficult puzzles. Economists owe him an immense intellectual debt. The publication of the Collected Works of Israel M. Kirzner would not be a reality without the participation of Liberty Fund, Inc. We are extremely grateful to Liberty Fund, and especially Emilio Pacheco, for making this project possible. To republish Kirzner's unique oeuvre has been on our minds since our time spent at New York University in the 1990s—where one of us was a professor (Peter) and the other a postdoc student (Frederic). We are thrilled at the idea that current and future generations of economists and other scholars will have easy access to Kirzner's works.

Finally, we wish to thank Rosemarie Fike for her invaluable help in the publication of this volume.

Peter J. Boettke and Frédéric Sautet

BIBLIOGRAPHY OF WORKS CITED IN THE INTRODUCTION

- Ayers, C. E. (1963) "Review of Israel Kirzner, Market Theory and the Price System," American Economic Review, 53 (September): 755–756.
- Heck, V. (1963) "Review of Murray Rothbard, Man, Economy, and State," American Economic Review, 53 (June): 460–461.
- Mises, L. (1949) Human Action. New Haven, Connecticut: Yale University Press.
- Piereson, J. (2005) "Funding a Movement," *The Insider,* Summer, http://www.heartland.org/custom/semod_policybot/pdf/18502.pdf.
- Rothbard, M. (1961) "Comments on Israel M. Kirzner's MS: *Market Theory and the Price System,*" December, memorandum to the Volker Fund, Rothbard Archives, Ludwig von Mises Institute, Auburn, Alabama.
- Rothbard, M. (1962) *Man, Economy, and State, 2* vols. Princeton, New Jersey: Van Nostrand.
- Stigler, G. (1946) The Theory of Price. New York: Macmillan.
- Winch, D. (1964) "Review of Murray Rothbard, Man, Economy, and State," Economic Journal, 74 (June): 480–482.

PREFACE

During the past few years a number of competently written textbooks on price theory have appeared. The author's excuse for adding yet another book to the elementary literature in this field is that his approach, while in no sense original, presents the subject in an entirely different light.

The approach adopted in this book views the market as a *process of adjustment*. In this process individual market participants are being forced continually to adjust their activities according to the patterns imposed by the activities of others. Market theory then consists essentially in the analysis of these step-by-step adjustments and of the way the information required for these adjustments is communicated. Equilibrium positions are not, as in other books, treated as important in themselves. They are rather seen as merely limiting cases where the market process has nothing further to do, all activities being already mutually adjusted to the fullest extent.

Despite the importance attached to the implications of the approach adopted here, users of this book will find relatively few major substantive departures from price theory as it is usually presented. The principal areas where major differences will be found arise out of the drastically reduced attention paid to perfect competition. Presuming the basic course in general economics, this book is designed for an undergraduate course in intermediate price theory.

For the rest, an author can hardly hope to have escaped revealing his own proclivities, biases, and predilections. Determined efforts have been made to subordinate geometry to economic reasoning. Whatever the author may have learned from Marshall, Edgeworth, and J. B. Clark, this book probably will reveal that he has learned more from Menger, Böhm-Bawerk, and Wicksteed.

Besides his indebtedness to the literature, the author must acknowledge much kind help received from several persons during the preparation of this book. To his teacher Ludwig von Mises, above all, he owes his appreciation of the market process. In addition to reading the finished manuscript, Professor Mises offered many helpful suggestions during its completion. It is with deep pleasure that the author dedicated this volume to him upon the attainment of his eightieth year.

The author is grateful to his colleagues at New York University, as well as to his students, for stimulating discussions on a number of points. To Professor L. M. Lachmann of the University of Witwatersrand, South Africa, he is indebted for several valuable insights that were made use of in exposition. The author's wife has patiently and cheerfully endured, aided, and encouraged throughout the book's preparation. To all these he is grateful; none of them is to be held responsible for all that remains unsatisfactory.

Israel M. Kirzner

MARKET THEORY AND THE PRICE SYSTEM