Third Edition

MANAGERIAL ECONOMICS

MAURICE / SMITHSON

MANAGERIAL ECONOMICS

Applied Microeconomics for Decision Making

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PREFACE

In the preface to our second edition, we admitted, "When we began this revision, we fully expected that our changes would be rather minor. But, as we read the comments of users, we eventually came to the opinion that a major revision was needed."

When we began this, our third edition, we again expected that our changes would be rather minor. And yet again we came to the opinion that a major revision was necessary.

In the case of this revision, two factors led us to revise our expectations and opt for a major revision. First, as with the previous revision, we listened to the people who used the text. Our users had asked for some reorganization, for still more business-oriented applications, and for the discussion of linear programming that had been dropped in the second edition to be included once again. Second, in the interim since the second edition was written, Charles Smithson spent two years teaching managerial economics and corporate finance to officers of Chase Manhattan Bank throughout the world. As is always the case, the person in the class who learns the most is the teacher; and this was definitely the case with Charles' experience with Chase. Most significantly, he got a much fuller appreciation of the way managerial economics and managerial finance fit together, and he wanted to try to incorporate that appreciation in this text.

Hence, to the two fundamental objectives described in the preface to our second edition:

1. To present the core of microeconomic theory.
2. To show how the theoretical concepts can actually be implemented.

we add a third objective in this edition:

3. To demonstrate the relation of managerial economics to finance and to the other courses in a business school curriculum.

Indeed, these three objectives illuminate the primary distinguishing characteristics of our approach to managerial economics.

First, this text can "stand alone" in the sense that it contains all of the principles of microeconomic theory needed to understand specific managerial economics concepts; no supplemental text is necessary. By presenting the basic theory and the specific managerial economics constructs together, we demonstrate that managerial economics is simply an application of microeconomics.

Second, we stress that the theoretical principles of microeconomics are *useful* in the real world. We use a "three-pronged attack" to make this crucial point. (1) We show that the principles of microeconomic theory will invariably lead the manager to decisions that will increase the value of the firm. (2) Using some simple numerical examples, we show that the implementation of the principles using real-world data and some basic empirical models and techniques is not all that hard. (3) Drawing on recent articles in publications like *The Wall Street Journal*, we show that real-world managers are actually using the theoretical principles to make decisions on a day-to-day basis.

Third, we demonstrate how managerial economics—applied microeconomic theory—is related to the other disciplines the student will encounter in a business school curriculum. We point out how managerial economics relies on material from other disciplines (e.g., the importance of the theory of efficient markets to the issue of forecasting future sales) and how economics provides a theoretical framework for questions asked in other disciplines (e.g., the use of the indifference curves to evaluate the effect of advertising programs).

The reorganization of material reflected in this edition resulted solely from requests from our users. There are three major areas in which the reorganization appears.

As has been the case since its inception, the body of the text contains no calculus; only algebra and basic geometry are required for complete understanding of the material presented. In the past, the calculus was presented in footnotes. In this edition, we have moved those mathematical discussions, as well as any difficult material that could be bypassed without a loss of continuity, to appendices to the relevant chapters.

For the reasons given in the preface to our second edition, we still believe that it is easier to teach production and cost first and then teach demand. This belief notwithstanding, our current role as textbook writers requires us to listen to our users about the topic order they think is easier to teach. We have listened. Consequently, we have in this edition returned to the traditional topic organization of demand first (Part 2, following the methodological preliminaries in Part 1) and then production and cost (Part 3).

As noted earlier, a number of users asked that we reinstate the topic of linear programming. While we do not use linear programming directly in any of our applications, we have added this topic in an appendix to this text.

The response of instructors and students to the applications in our previous editions has been gratifying. And, if you liked those, you should love the new ones. In this revision, we gave particular attention to the applications.

We searched *The Wall Street Journal* and other publications to find stories that illustrate the theoretical principles. In particular, our goal was to find timely and amusing stories. We think that, with applications like " 'People Watching' to Estimate Demand" (Chapter 7), "Insurance and Litigation Expenses: A Different Type of Production Cost" (Chapter 12), "An Advertiser's Dilemma: Baby Food and Burger Wars" (Chapter 15), and "Selling off the Crown Jewels" (Chapter 18), we succeeded.

For more complicated topics and/or those that required numerical solutions, we were sometimes forced to make up stylized applications. We developed these stylized applications to correspond to real-world events as much as possible. For example, our applications for hostile takeovers—"What Happened to the Golden Boys at EasTex Oil?" and "Goodbye to the Golden Boys at EasTex Oil" (Chapter 18)—are simply stylized versions of stories that were repeated many times in the 1980s.

In addition to the revised applications, we have made extensive revisions and, we believe, improvements to the text. For example, the chapters on production and cost have been expanded to make the material more accessible. Moreover, much of the material on market structures, particularly oligopoly, has been reordered and expanded. Indeed, we have added new text material to every chapter—as we continue to learn new material, we pass it on to the users of this text.

The effect on our thinking of Charles' experiences at Chase appear throughout the text. Examples include estimation of the market model (Chapter 4), the discussion of efficient markets as they relate to demand forecasting (Chapter 8), and price forecasts obtained from the futures markets and random walk price forecasts (Chapter 13).

However, the most significant changes are reflected in Part 6 of the text, all of which is new material. In Parts 1 through 5 of the text, we implicitly consider a firm that is owned and managed by a single entrepreneur, has only a single-period time horizon, and faces no uncertainty. In Part 6, we explicitly consider the shareholder-owned firm. Chapter 18 examines the effects of a multiperiod time horizon, considering the concept of present value, the net present value rule for maximizing the value of a firm, the relation between single-period profit maximization and maximizing the value of the firm, the way maximizing the value of the firm eliminates potential conflicts among shareholders, and how the net present value rule can explain much of the recent merger and acquisition activity in the United States. Chapter 19 examines the effects of uncertainty. After looking at some basic features of probability distributions and showing how the variance of a distribution can be used as a measure of risk, we concentrate on the valuation of a stream of risky cash flows, with particular emphasis on the appropriate discount rate for a risky project. In the process, we consider risk-adjusted discount rates, the weighted average cost of capital, and the capital asset pricing model. Chapter 20 brings together Chapters 18 and 19 by considering the investment decision. We compare the net present value rule with other competing investment criteria—payback, return to investment, and internal rate of return—and then briefly examine the capital rationing problem.

The material in Part 6 is an integral part of managerial economics. In Parts 1 through 5, we look at three questions a manager must answer when maximizing single-period profit:

How much output do I produce?
What price do I charge?
What levels of input usage is optimal?

In Part 6, we look at the fourth question a manager must answer:

What investment projects will I undertake?

Moreover, as is apparent from the topics covered and the order of presentation, the material in Part 6 will lead into or reinforce the material learned in the student's finance courses. Hence, it provides an integration of managerial economics with finance, which is part of our third objective for this text.

Chuck Maurice
Charles Smithson

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S. C. M.
C. W. S.

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