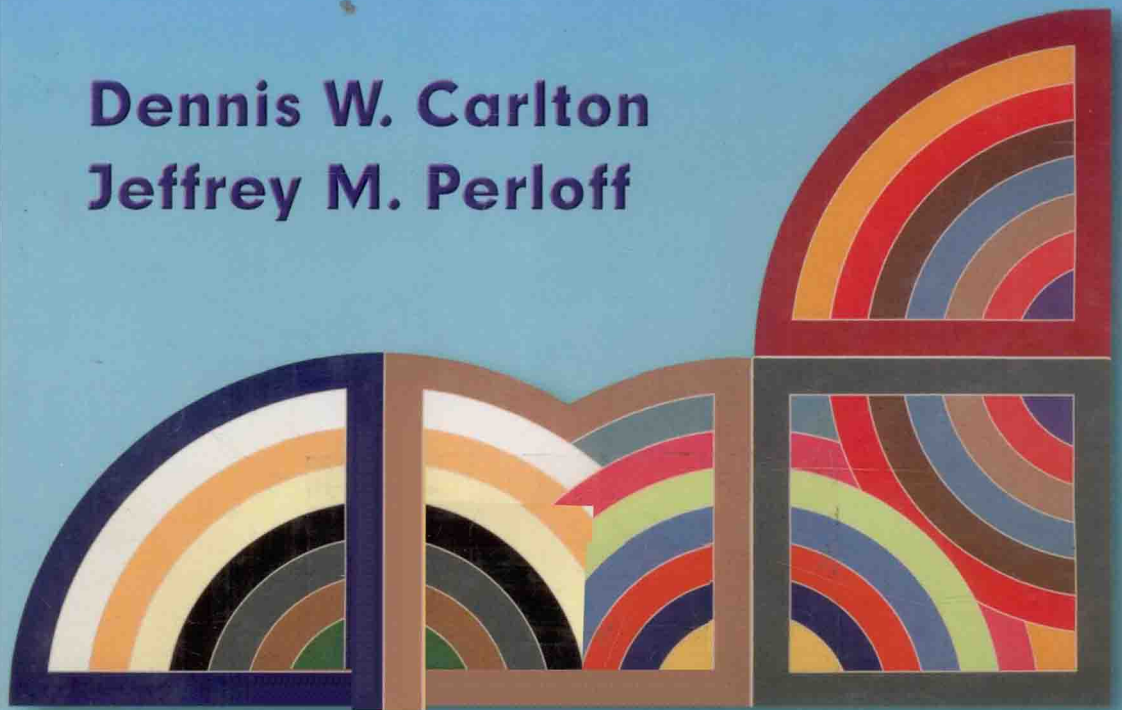


Modern Industrial Organization

Fourth Edition

Dennis W. Carlton
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Modern Industrial Organization

Fourth Edition

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Preface

There's no IO without U.—Sesame Street

Modern *Industrial Organization*, Fourth Edition, combines the latest theories with empirical evidence about the organization of firms and industries. It goes beyond the descriptive traditional structure-conduct-performance approach by using the latest advances in microeconomic theory, including transaction-cost analysis, game theory, contestability, and information theory. Practical examples illustrate the role of each theory in current policy debates, such as whether mergers promote economic efficiency (Chapter 2), whether predatory pricing is likely to be a serious problem (Chapter 11), whether preventing manufacturers from restricting distributors' prices benefits consumers (Chapter 12), whether providing consumers with more information about prices or products increases welfare (Chapter 13), whether advertising is harmful (Chapter 14), whether joint ventures are the best means of encouraging research (Chapter 16), whether current antitrust laws promote competition and increase welfare (Chapter 19), and whether government regulation does more harm than good (Chapter 20).

Modern Industrial Organization is designed for use by both undergraduate and graduate students. The theories presented in the chapters require only a microeconomics course as a prerequisite and do not involve calculus. Technical appendixes supplement selected chapters and provide a rigorous foundation for graduate students. Starred sections are relatively difficult and may be skipped.

We have used this book in both undergraduate and graduate courses. In our undergraduate courses, we rely on the chapters and skip the technical appendixes. In graduate courses, we use the chapters and technical appendixes along with supplementary readings based on selected articles that are discussed within chapters or recommended at the end of chapters.

Structure of the Book

The first half of the book covers the basics of competition, monopoly, oligopoly, and monopolistic competition. Chapter 1 discusses the basic approach used in the book. Chapter 2 discusses the reasons why firms exist, merger activity, and costs. Chapters 3 and 4 develop the basics of microeconomic theory—costs, competition, monopoly, barriers to entry, and externalities—that we use throughout the rest of the book. Variations on the standard models (such as a dominant firm facing a competitive fringe) are also presented.

Chapters 5 through 7 explain the recent developments in the theory of oligopoly and monopolistic competition. Chapter 5 covers cooperative oligopoly behavior (cartels), and Chapter 6 examines both cooperative and noncooperative behavior

based on game theory. Chapter 7 focuses on monopolistic competition and product differentiation. Chapter 8 concludes the first part of the book with a thorough review and assessment of empirical work on market structure.

The remainder of the book covers the “new industrial organization”—material that is often missing from traditional texts. These topics, essential for applying the theories of industrial organization to everyday problems, are at the heart of many public policy debates and are the focus of considerable recent research. Chapters 9 and 10 cover common pricing strategies such as price discrimination through quantity discounts and tie-in sales. Chapter 11 examines strategic behavior where firms determine the best ways to do battle with their rivals. Chapter 12 discusses common business practices between manufacturers and distributors (vertical integration and vertical restrictions) and the dramatic changes in public policy toward these practices in recent years. The next two chapters, Chapters 13 and 14, address the problems that arise when consumers are not perfectly informed and when firms must advertise their products. The role of time is introduced in Chapters 15 and 16, which analyze how the durability of a product affects the market and how innovation can be encouraged. Chapter 17 considers evidence on the ways markets operate, and explores how modern microeconomic models of industrial organization may affect the macroeconomic economy. Chapter 18 examines the industrial organization issues that arise in international trade. The two concluding chapters, Chapters 19 and 20, analyze antitrust policy and government regulation.¹

Although we believe that *Modern Industrial Organization* contains innovative ideas, we recognize that any textbook must borrow from existing research. We have tried to indicate when we have relied on the insights of others. However, we may have occasionally omitted a reference to an author whose ideas predated ours. We apologize for any such oversights.

Changes in the Fourth Edition

There are three major changes in the Fourth Edition. First, we have added many new applications, as well as discussions of important recent policies and new theories. Much of this new material is based on significant findings from more than 250 relevant articles and books published since our last edition. We have substantially updated material on cartels, particularly international cartels, and antitrust activities (Chapter 5); we have included a new section on estimation issues concerning differentiated

¹Sometimes commonly used words have special meanings in the law that differ from the standard usage by economists and the general public. We try to use clear language to express economic rather than legal principles. For example, we might say that the “price of wheat in the market in Chicago affects the price of wheat in the market in Kansas City.” Although such a statement uses the word *market* loosely, the point of the statement—that the prices of wheat in Chicago and Kansas City are related—is clear. In an antitrust trial, however, a specific legal definition of a market (see Chapter 19) is used and whether there are two separate markets or a single combined market is often of central interest. Our statement should not be interpreted to mean that there are necessarily two distinct wheat markets in Chicago and Kansas City for legal purposes.

goods oligopolies (Chapter 7); we have added a major new section on Sutton's modern approach to structure-conduct-performance analysis (Chapter 8); and we have substantially updated our discussion of patents and copyrights (Chapter 16) and regulation (Chapter 20).

Second, we have updated 18 examples and added 51 new examples. For instance, in one updated application, we conducted a new study of how the prices of Coke and Tropicana orange juice vary across grocery stores within a city. Our new examples spotlight a range of current events, among them the Enron scandal, the importation of low-price drugs from Canada, genetically modified organisms, the effect of 9/11 on flag sales, Blockbuster's innovative pricing policies, mergers in Europe, a monopsony in hiring priests, the change of China's tobacco monopoly to dominant firm status, the international vitamins cartel, the value of minivans, the certification of thoroughbreds, counterfeit Halal meat, Napster and piracy issues, and many others.

Third, we have significantly augmented our Web site, www.aw-bc.com/carlton_perloff, with extensive supporting material. Still-timely material that we removed from the Third Edition is available on the Web site. Further, we have written many new applications for the site.

Alternative Course Outlines

To cover the entire book takes two quarters or semesters. The book is designed, however, so that shorter courses can be constructed easily by choosing selected chapters, as shown in the following proposed reading lists.

Chapter 2 through 4 review and extend the basic material that is often covered in an intermediate microeconomics course: the theory of the firm, costs, the theory of competition, the theory of monopoly, and externalities. These chapters can be reviewed quickly for students with extensive preparation in microeconomics. Chapters 2 through 8 comprise the basic material for any course. Depending on the interests of the students and the instructor, a one-quarter or semester course could then sample a few of the chapters in the remainder of the book to obtain a flavor of the ways industrial organization can be used to study real-world problems.

All courses:

Carefully cover the core material in Chapters 2 and 5–8.

For courses that do not assume a strong background in microeconomic theory:

Cover Chapters 3 and 4.

Courses that assume a strong background in microeconomic theory:

Quickly review Chapters 3 and 4.

Courses that require calculus:

Include the technical appendixes and material on the Web.

Policy-oriented courses:

Cover international trade, antitrust, and regulation (Chapters 18 through 20). As time allows, include strategic behavior (Chapter 11), price discrimination (Chapters 9

and 10), vertical relationships (Chapter 12), limited information, advertising, and disclosure (Chapters 13 and 14), government policies toward innovation (Chapter 16), and macroeconomics (Chapter 17).

Regulation courses:

Regulations are dealt with throughout the book. Cover, in particular, externalities (Chapters 3 and 4), vertical relations (Chapter 12), limited information (Chapter 13), advertising and disclosure (Chapter 14), government policies toward innovation (Chapter 16), international trade (Chapter 18), and other government regulation (Chapter 20).

Business courses:

Include strategic behavior (Chapter 11), price discrimination (Chapter 9 and, optionally, nonlinear pricing, Chapter 10), vertical relations (Chapter 12), information and advertising (Chapters 13 and 14), and international trade (Chapter 18).

Courses that stress the latest theories:

Include strategic behavior (Chapter 11), vertical relations (Chapter 12), information and advertising (Chapters 13 and 14), government policies toward innovation (Chapter 16), market operation (Chapter 17), and international trade (Chapter 18).

Advanced courses:

Add chapters on nonlinear pricing (Chapter 10) and durability (Chapter 15).

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Each author blames the other for any mistakes. Each takes credit for any good jokes.

Dennis W. Carlton
Jeffrey M. Perloff

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