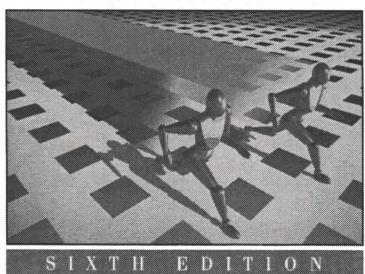
# THOMPSON JR.

## FORMBY



### ECONOMICS OF THE FIRM

Theory and Practice

# Economics of the Firm Theory AND PRACTICE

Arthur A. Thompson, Jr. John P. Formby

The University of Alabama

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# Economics of the Firm

### **Preface**

This sixth edition continues to stress solid coverage of microeconomic theory, complemented with an array of pragmatic applications and full-blown treatment of how a competitive enterprise economy functions. The standout features of the sixth edition are the addition of new theoretical treatments and the strong attention given to the drivers of industry structure and market change, the five-forces model of competition, generic competitive strategies, competitive advantage, and the special character of global markets and global competition.

#### How the Book Approaches Microeconomics

Because of the strong focus on the economics of firms, markets, and competitive behavior, this book is eminently suitable for courses where the audience consists mainly of MBA students and undergraduate business majors. Our objective has been to cover what every business student needs to know about microeconomic theory and competitive market economics. While the strong microtheory content makes the book quite suitable for courses populated with economic majors, we have deliberately chosen to stress concepts and applications especially pertinent to analyzing the behavior of firms and competitive markets and to give less attention to topics which either have a "purist" flavor or else relate more directly to non-market sectors of the economy.

The primary unit of analysis is the business firm. Readers are exposed again and again to how the conclusions of microeconomic analysis guide firms into one course of action rather than another. The economics of the firm is looked at from the inside as concerns production, cost, profitability, and competitive strategy considerations, and it is examined from the outside as concerns the influences of consumer demand, competition, market structure, and resource supply.

The result is a microtext (1) that is strong on theory and analysis, (2) that takes as its focal point the economics of the firm in a competitive market environment, and (3) that uses examples and applications to bridge the gap between theory and practice. In the overall scheme of approaches to microeconomics the aim has been to stake out a position roughly mid-way between "pure theory" texts and "managerial economics" texts and, further, to differ-

entiate the content based on thorough coverage of competitive forces, competitive strategy, competitive advantage, and techniques for analyzing globally competitive markets.

#### TRADITIONAL TOPICS WITH A MENU OF EXTRAS

All major aspects of microeconomic theory are explored. The standard models of utility theory, indifference analysis, basic supply and demand, elasticity, production and cost functions, monopoly and perfect competition, resource pricing, and general equilibrium are given full exposure. But there are differentiating extras which can be covered or not as the instructor sees fit:

- A birdseye look at the methods of economic analysis (including "scientific testing," deductive logic, argument by example, diagrammatic models, and the use of mathematical proofs), what a theory is, the role of assumptions and abstraction, and the relevance of theory to explaining real-world economic phenomena (Chapter 1).
- A refresher chapter on supply, demand, and the functioning of markets (Chapter 2).
- Coverage of the product attribute model of consumer demand (Chapter 4).
- Expanded treatment of learning and experience curve effects in achieving higher levels of efficiency and cost savings (Chapter 6).
- A survey of profit concepts, profit theories, the debate over profit maximization, and nonprofit goals of firms (Chapter 9).
- Full exposure to the many models of oligopolistic competition (Chapter 13).
- A survey of multiple-goal models of business behavior (Chapter 14).
- A chapter on the five competitive forces, built around Michael Porter's now classic model for diagnosing how competition works in a given industry (Chapter 15).
- A chapter on ways to create and defend competitive advantage (Chapter 16).
- Sections dealing with a firm's cost competitiveness vis-a-vis rivals, multiproduct pricing, price signaling through the media, the social costs of monopoly power, taxing excess profits, the competitive effects of advertising and product differentiation, first-mover advantages, switching costs, driving forces, the mapping of competitive groups, the wage-employment effects of unions, the impact of minimum wage legislation, and the economics of productivity changes.

What's New in the Sixth Edition. In preparing this edition, we revisited the issue of what theoretical topics to include and elected to expand coverage in a number of places. The most noteworthy additions and changes include:

- A discussion of Nobel Laureate Ronald Coase's ideas on the nature and role of transactions costs (Chapter 2).
- Explicit consideration of the concept of consumer surplus, the gains from trade and exchange, and the techniques that firms use in extracting the surplus from buyers.
- A new section on real-world demand curves and empirical estimates of demand elasticity, plus a new Mathematical Capsule on constant elasticity demand curves (Chapter 5).
- A much revised discussion of the multiple goals of the firm that treats

- the array of principal-agent problems arising in manager-controlled firms (Chapter 9).
- A substantial revision of the oligopoly chapter that features cooperative versus non-cooperative behavior, the cartel model, the stability of collusive behavior, and new game theory material involving situations where oligopolistic firms repeatedly confront the same game situation (Chapter 13).
- More explicit treatment has been given to the conditions for general equilibrium of the firm (Chapter 18).
- Seven new Applications Capsules have been added; they relate to such things as airline pricing and consumers' surplus, monopoly in the market for government bonds, the OPEC cartel, oligopoly warfare in snack foods, collusion and profits in major league baseball, and union activity and economic rents in professional football.

The most visible addition to the chapters is the use of "margin notes" highlighting basic principles, major conclusions, and core truths about microeconomics. Most of the notes endeavor to distill the discussion into concise principles and "facts" that every student should learn from a study of microeconomic analysis. Our pedagogical purposes in developing the margin notes were to bring each topical discussion into sharper focus for readers, point them directly to what is important, and better help them grasp key microtheory concepts and principles.

We have also revised the order of the chapters dealing with imperfect competition so that the chapter on perfect competition is followed immediately by the chapter on its analytic opposite, monopoly. However, as before, the chapters on market models are sufficiently self-contained that instructors can cover them in whatever sequence is preferred.

Other Pedagogical Features. The use of boxed off "application capsules" to highlight actual applications of microtheory continues as one of the text's highlights. As before, these aim at keeping the integration of theory and practice always before the student without disjointing the theoretical discussion. In addition to the applications capsules, empirical findings and brief examples are scattered throughout each chapter. The pedagogical thesis is that unless microeconomic analysis is directed at explaining, predicting, and otherwise illuminating the economic behavior of consumers, firms, and markets, its value doesn't go much beyond an exercise in mental gymnastics and intellectual curiosity.

As has now become customary and proper, the theoretical concepts are presented in a modestly mathematical vein in belief that most students, given that they are required to take introductory calculus, are well-equipped to handle nothing more mathematically complex than first derivatives. All mathematical concepts requiring more than basic algebra are explained fully and in terms which can be grasped by the mathematically unsophisticated. The more advanced mathematical treatments of microeconomics have been placed in self-contained "capsules" at appropriate places in the book and can be omitted without a loss of continuity.

Like any new edition, this one too has undergone all the usual rewriting and updating. We've aimed at giving this sixth edition an even better balance between "bare bones" coverage versus in-depth analysis, theory versus application, classical versus contemporary models, mathematical versus verbal/graphical exposition, and conceptual simplicity versus the need to instill students with some technical proficiency and analytical skill. The intended

result is (1) a book which suits the "need-to-know" requirements of business school undergraduates, first-year MBA students, and economics majors and (2) a book which is a coherent and teachable synthesis of the best of all that is old and new in microeconomics. Whether we have succeeded is quite fittingly, for "the market" to decide. Your comments regarding coverage and emphasis will be most welcome, as will your calling our attention to specific errors.

#### THE COMPETITION GAME OPTION

Version one of *The Competition Game* was well received and provoked renewed interest in PC-based simulations. The second version, a companion supplement to this edition, makes the use of a simulation exercise in a microeconomics course even more appealing. In playing *The Competition Game*, students are organized into teams/companies to form an industry; each company produces and sells a product in worldwide competition with other companies in the industry.

The Value a Simulations Adds. First and foremost, the exercise of running a simulated company over a number of decision periods helps develop students' understanding of competitive dynamics, how markets work, and how to apply microeconomic principles in decision-making situations. In playing the simulation students have to react to changing marketing conditions, study the actions of competitors, and weigh alternative courses of action. They get valuable practice in spotting market opportunities, evaluating competitive threats to their company's well-being, and assessing the long-term consequences of short-term decisions. They see a host of microeconomics concepts come alive. Since a simulation game is, by its very nature, a hands-on exercise, the lessons learned are forcefully planted in students' minds: the impact is far more lasting than what is remembered from lectures. Moreover, students' entrepreneurial instincts blossom as they get caught up in the competitive spirit of the game. The resulting entertainment value helps maintain an unusually high level of student motivation and emotional involvement in the course throughout the term.

We think you will find *The Competition Game* a welcome course option. It will add a dimension to your course that can't be matched by any other teaching-learning tool. Moreover, with the aid of today's high-speed personal computers and the technical advances in software capability, there's minimal gearup time on the instructor's part. You'll find that the time and effort required to administer *The Competition Game* is well within tolerable limits.

About the Simulation. The product for The Competition Game is compact disk players. The industry setting is global; companies can manufacture and sell their brands in the United States, Europe, or Asia. Competition is head-to-head; each team of students must match competitive wits against the other company teams. Companies can focus their efforts on one geographic market or two or all three; they can establish a one-country production base or they can manufacture in all three of the geographic markets. Demand conditions, tariffs, and wage rates vary from area to area.

The company that students run has plants to operate, a work force to employ and compensate, shipping expenses and inventories to control and capital expenditure decisions to make; they have to wrestle with price elasticity considerations economies of scale, substitution of capital for labor, technological change, tariff barriers, marginal and average cost analysis, changing demand-supply conditions, price and nonprice competition, and profit maximiza-

tion. Students must evaluate whether to pursue a low-cost producer strategy, a differentiation strategy, or a focus strategy. They have to decide whether to produce "off-shore" in Asia where wage rates are very low or whether to avoid import tariffs and transocean shipping costs by having a producing base in every primary geographic market.

The Competition Game can be used with any IBM or compatible PC with 640K memory and it is suitable for both intermediate and MBA courses in microeconomics. The game is programmed to accommodate a wide variety of computer setups as concerns disk drives, monitors, and printers.

#### **ACKNOWLEDGEMENTS**

Our intellectual debt to both the classical and contemporary economists whose fertile contributions have been weaved into the presentation will be obvious to any reader familiar with the literature of microeconomics; we have been particularly influenced by the works of F. M. Sherer, Michael E. Porter, Oliver Williamson, and Ronald Coase. All of the scholarly sources and materials which we have drawn upon are cited in the footnotes and bibliographical references. We genuinely hope that no violence has been done to anyone's ideas in our effort to synthesize them into the body of microeconomic analysis.

Both this edition and previous editions have benefited greatly from the comments of students, reviewers, and adopters. Special thanks are due to the reviewers of all six editions: Keith Lumsden, Robert Clower, Howard Dye, Lloyd Valentine, Richard Hoffman, Frank Falero, Dwight Anderson, Ralph Gray, Thomas C. Anderson, Jay G. Chambers, Larry G. Beall, Melvin C. Fredlund, Wesley Magat, Donald J. Roberts, Ernest Koenigsbert, Stephen L. Shapiro, Stephen Buckles, John Stevens, William A. Hayes, Sharon G. Levin, Walter Ricke, and John Huttman.

Naturally, however, we alone are responsible for whatever blunders or inadequacies you find—we will be grateful if you will call them to our attention at P.O. Box 870225, Tuscaloosa, Alabama, 35487-0225.

Arthur A. Thompson, Jr. John P. Formby

### Note to the Student

Courses in intermediate microeconomics typically have the reputation of being among the most challenging in any college curriculum. The reputation is well deserved—this might as well be admitted at the outset. But despite the analytical rigor, the road ahead is well worth exploring, and we have tried to clear the way of unnecessary obstacles. Pains have been taken to make the text readable and interesting, to provide step-by-step explanations of each concept, to keep the graphs uncluttered and the mathematics simplified. Examples and applications are consistently indicated in enough detail to make them meaningful. Chapter-end problems and questions have been included as a self-test of your command of the material and to increase your mechanical proficiency with important concepts.

Because students begin the course with widely-varying backgrounds and degrees of preparation, the treatment of each new topic is begun at the lowest level of analysis. No prior knowledge of economics is assumed. Thus, while this course is probably not your first exposure to economics, those of you who remember little from previous courses or who feel poorly prepared in economics will find yourselves at no serious disadvantage.

Assuming no prior knowledge and providing complete explanations has made some chapters a bit long. But longer may still be quicker and easier. The intended effect is a more comprehensible presentation that will help you to grasp the more difficult material in less time and convince you of the value and power of economic analysis. A textbook is, after all, primarily for the student, not the professor and, in the final analysis, you the student are an excellent judge of how well the book performs its job of helping you understand the subject matter. We will be pleased to receive your praises and/or criticisms at P.O. Box 870225, Tuscaloosa, Alabama 35487-0225.

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