

Joseph E. Stiglitz

Carl E. Walsh

principles of microeconomics

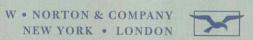
THIRD EDITION

Joseph E. Stiglitz

Columbia University

Carl E. Walsh

University of California, Santa Cruz



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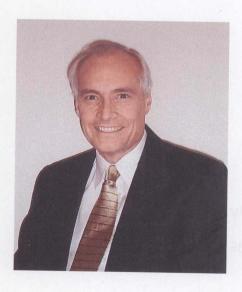
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About the Authors

Joseph E. Stiglitz is professor of economics, business, and international and public affairs at Columbia University. Before joining the Columbia faculty, he held appointments at Yale, Oxford, Princeton, and Stanford. Internationally recognized as one of the leading economists of his generation, Professor Stiglitz has made important contributions to virtually all of the major subfields of economics. He was a co-recipient of the Nobel Prize in Economic Science in 2001, and earlier in his career received the American Economic Association's John Bates Clark Medal, which is given every two years to the most outstanding economist under the age of forty. Professor Stiglitz is the author and editor of hundreds of scholarly articles and books, including the best-selling undergraduate textbook Economics of the Public Sector (Norton) and, with Anthony Atkinson,

the classic graduate textbook *Lectures in Public Economics*. He was the founding editor of the *Journal of Economic Perspectives*. Professor Stiglitz has also played a prominent role at the highest levels of economic policy making. He was a member and then chairman of President Clinton's Council of Economic Advisers and later served as chief economist of the World Bank.



Carl E. Walsh is professor of economics at the University of California, Santa Cruz, where he teaches principles of economics. He previously held faculty appointments at Princeton and at the University of Auckland, New Zealand, and has been a visiting professor at Stanford. He is widely known for his research in monetary economics and is the author of a leading graduate text, Monetary Theory and Policy (MIT Press). Before joining the Santa Cruz faculty, Professor Walsh was senior economist at the Federal Reserve Bank of San Francisco, where he continues to serve as a visiting scholar. He has also been a visiting scholar at the Federal Reserve Banks of Kansas City and Philadelphia, and at the Board of Governors, and has taught courses in monetary economics at the Bank of England, the Bank of Spain, the Bank of Portugal, and the International Monetary Fund. He is a past member of the board of

editors of the American Economic Review and is currently an associate editor of the Journal of Money, Credit, and Banking and the Journal of Economics and Business. He is also on the editorial board of the Journal of Macroeconomics.

preface

The Third Edition of this textbook has a number of significant changes. To begin with, it is now a collaborative effort. By working together, we have been able to broaden dramatically the range of experience and expertise that informs our book. The result is a new edition that improves substantially over its predecessors while still retaining their guiding principles.

As we worked on the revision we kept our sites on two main objectives. The first was to ensure the book continues to provide students with a clear presentation of the basic competitive model, while also ensuring that students can quickly move on to explore the richness of modern economic analysis in areas such as the economics of information, imperfect competition, and the economics of technology and innovation. These areas, prominent in the previous editions, have taken on an even greater relevance as information technologies change the marketplace. Our second objective was to present modern economics in a way that is conducive to good teaching and student learning. Here, we stress core concepts and have reorganized the book so that instructors will find it flexible enough for a variety of classroom and lecture settings. Whether it is used for a one-semester, one-quarter, or mini course, the new edition allows instructors to combine core chapters with a selection of additional chapters that contain extensions or more in-depth coverage of various topics, or that focus on issues of current policy debate.

Much has changed in the modern economy and in modern economics since the Second Edition of this textbook. The productivity slowdown that gripped the economy in the twenty years after 1973 was replaced in the last half of the 1990s by an apparent productivity acceleration. The fiscal deficits of the 1990s were replaced, as the century ended, with fiscal surplus, although the economic slowdown and the War on Terrorism have quickly eroded

these surpluses. The long economic expansion of the 1990s came to an end when the book was in the last stages of preparation. New technologies, particularly those associated with information-based systems, are transforming the economy to such a degree that many observers have come to describe the contemporary economic environment as a *new economy*. Our third objective was to write a textbook that reflects this contemporary scene. Thus, the Third Edition integrates the recent developments associated with innovation and the digital economy by using examples from the new economy.

In pursuing this third objective we were repeatedly reminded of the importance of writing a textbook that reflects modern microeconomics—one that recognizes the importance of incentives, limited information, innovation, and technology. The new economy has provided many new examples and case studies to illustrate the core principles of economics. And the new economy provides further evidence of the importance of information and technology, topics whose treatment has always been one of the strengths of the previous editions. The new economy, despite its current slump, has forcefully driven home the critical role new technologies play in the modern economy. For students to make sense of competition policy in the twenty-first century, they need to understand what network externalities are and how information and ideas are different from traditional goods and services.

- Key changes for the Third Edition: Our objectives for the Third Edition take shape in a number of key changes. These include:
- The opening chapter (Chapter 1) uses the story of the Internet to introduce basic concepts in economics. Five core concepts (incentives, trade-offs, exchange,

information, and distribution) are explained in this opening chapter and then woven throughout the book in "Thinking Like an Economist" boxes that serve to illustrate how these key concepts help students understand issues from overloaded AOL modem servers (Chapter 1) to why developing economies have supported trade liberalization for information technologies but not for financial services (Chapter 18).

- The organization has been streamlined to allow the core material for the basic competitive model to be covered in the first ten chapters. This is followed in Part 3 by six chapters covering imperfect markets, information, and the role of the government.
- A new introductory chapter to Part 3 (Chapter 11) provides an overview of imperfect competition in the goods market, imperfect information, and imperfections in the labor market. This is followed by individual chapters that deal with each topic in greater depth. This allows instructors to introduce students to all these important topics even in shorter courses or when both microeconomics and macroeconomics need to be covered within a single course.
- Optional chapters have been collected together in Part 4. Teachers who wish to go beyond the basic course comprised in Chapters 1 through 16 may add chapters from Part 4 as they see fit. For instance, after covering the labor and capital markets in Chapter 9, some teachers may wish to cover investment decisions, discussed in Chapter 17, "A Student's Guide to Investing." Similarly, the other chapters of Part 4 can be used to satisfy particular course objectives according to the teacher's needs. The flow chart on p. xxi shows the chapter dependencies of the book.
- Strategic behavior permeates modern economic analysis, so we have added a new chapter (Chapter 19) that uses simple examples to introduce students to the concepts of Nash equilibrium, dominant strategies, backward induction, and sequential and repeated games.

Pedagogical Elements This book provides a complete pedagogical package designed to help students master basic principles and then apply them to a wide range of situations. The following special elements, which have various applications and real-world connections, appear throughout the book:

e-Insight boxes, appearing in most chapters of the book, apply economic principles to new developments in information technology and the Internet.

e-Case boxes, which conclude each part of the book, explore "new economy" themes in greater depth.

International Perspective boxes present applications on international issues.

Thinking Like an Economist features, which appear in each chapter of the book, reinforce the core ideas presented in the book's opening chapter.

CASE IN POINT vignettes, which highlight real-world applications in each chapter, are integrated into the body of the text.

Internet Connection boxes provide useful links to Web resources and home pages.

In addition to these elements, students will find guidance through other important pedagogical features. Each chapter opens with a set of key questions to help the reader get oriented to the main issues in the chapter. Within the chapter, "Wrap-Up" boxes track key concepts as they are developed in the text. And a chapter summary, list of key terms, set of review questions, and a problem set appear at the end of each chapter.

Ancillary Package A variety of valuable supplements are available to students and teachers who use the textbook.

Student Web Site Stephen Erfle (Dickinson College), David Gillette (Truman State University), and Rosemary Rossiter (Ohio University) have contributed to the text-book's exciting companion Web site, which may be accessed at www.wwnorton.com/StiglitzWalsh. This innovative tool will help students improve their command of economic principles. Features include:

• Conceptual quizzes that pair challenging questions with thought-provoking feedback. This highly effective combination encourages critical thinking and drives home the central themes and ideas of each chapter.

- Interactive tutorials that guide students through a sequence of analytical applications of the most important principles in the textbook. By working through these tutorials, students strengthen not only their understanding of economic principles but also their ability to solve economic problems.
- Mini lectures that review the main ideas covered in each chapter of the textbook in a multimedia format featuring animated graphs and audio narration.
- FAQs that alert students to common misunderstandings and clarify essential material in each chapter.
- *Practice quizzes* that test students' mastery of the information presented in each chapter.

Norton's Economics News Service By subscribing to a listserv created specifically for users of the textbook, students and instructors will receive e-mail messages directing them to current business-related articles from sources like NYTimes.com and CBSnews.com. Each article is prefaced by a brief annotation that explains its pertinence to material in the text.

Study Guide This innovative Study Guide, prepared by Lawrence Martin of Michigan State University, uses reviews, practice exams, and problem sets to reinforce the major ideas of each chapter. Unique problem-solving sections called "Doing Economics" give students the opportunity to apply what they have learned. Each section contains a series of "Tool-kits," which walk students through a specific problem-solving technique, several worked problems, and practice problems that apply the relevant technique.

Instructor's Resource Site and Manual The Instructor's Manual, prepared by Gerald McIntrye of Occidental College, includes annotated chapter outlines, lecture objectives, lecture modules, PowerPoint slides to accompany each lecture module, solutions to review questions in the textbook, solutions to problems in the textbook, alternative problem sets, and solutions to alternative problems sets. For more details, visit www.wwnorton.com/StiglitzWalsh.

PowerPoint Lectures and Color Transparencies A rich source of lecture supplements, this CD-ROM features one

set of PowerPoint slides that corresponds to the lecture modules in the Instructor's Manual and a second set of slides that contains all of the figures from the text. Color transparencies for all figures in the text are available to qualified instructors upon adoption.

Test-Item File and Computerized Test-Item File The Test-Item File has been revised by David Gillette of Truman State University. It contains 3,500 multiple-choice questions and is available in book or electronic from to qualified instructors.

Acknowledgments Although this Third Edition has been the collaborative effort of its two authors, it has also been a collective effort involving many, many other contributors, to all of whom we offer our profound thanks.

No project like this can succeed without the constant encouragement, advice, and gentle prodding of an editor. Ed Parsons fulfilled all these roles superbly, serving as a critical sounding board for our ideas, sharing our desire to present the ideas of modern economics to today's students. He has been invaluable, and it has been a pleasure working with him. Over the course of preparing this edition, editorial assistants Ann Marcy, Sarah Chamberlin, and Christopher Swart were always there to deal with problems ranging from locating photos to ensuring research assistants were paid. Mary Babcock, manuscript editor, Mary Kelly, project editor, and Jane Carter, managing editor, have all contributed their considerable skills to translating our manuscript into its final form. Rubina Yeh created the book's wonderful design, and Roy Tedoff served as production manager, coordinating the book's production. Finally, Jamie Marshall has helped promote our ideas of modern economics in his service as the book's marketer.

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A special note of thanks is owed to Judy Walsh for her contributions to the Third Edition. Judy has been an invaluable sounding board. Not only has she been an astute editor, providing ideas for examples and illustrations and offering numerous suggestions for expressing ideas more clearly, but she has always been there to offer needed encouragement and support.

Alternative Course Outlines In the Third Edition, we have improved the flexibility of the book for easy adaptability to courses with very different time constraints and objectives. One aspect of the book's flexibility is in the optional Part Four, Topics in Microeconomics. These chapters may be used selectively at different points in the preceding core discussion, or they may be discussed at the end of the course, if time permits. The following course outlines, which represent only two of the many that might be devised, reflect this structure.

Outline for a one-semester course in microeconomics		18	Trade Policy
CHAPTER	TITLE	19	Strategic Behavior
1	Economics and the New Economy	20	Technological Change
2	Thinking Like an Economist	21	Environmental Economics
3	Trade	Outline for	a short course in microeconomics
4	Demand, Supply, and Price	CHAPTER	TITLE
5	Using Demand and Supply	1	Economics and the New Economy
6	The Consumption Decision	2	Thinking Like an Economist
7	The Firm's Costs	3	Trade
8	The Competitive Firm	4	Demand, Supply, and Price
9	Labor and Capital Markets	5	Using Demand and Supply
10	The Efficiency of Competitive Markets	6	The Consumption Decision
11	Introduction to Imperfect Markets	7	The Firm's Costs
12	Monopoly, Monopolistic Competition, and Oligopoly	8	The Competitive Firm
		9	Labor and Capital Markets
13	Government Policies Toward Competition	10	The Efficiency of Competitive Markets
14	Imperfect Information in the Product Market	11	Introduction to Imperfect Markets
15	Imperfections in the Labor Market	12	Monopoly, Monopolistic Competition, and Oligopoly
16	The Public Sector		
Plus any of the optional chapters comprising Part 4		13	Government Policies Toward Competition
17	A Student's Guide to Investing	16	The Public Sector

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