



# MACROECONOMICS

**THIRTEENTH EDITION**



*Campbell R. McConnell*

*Stanley L. Brue*





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## **PRINCIPLES, PROBLEMS, AND POLICIES**

**THIRTEENTH EDITION**

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To Mem  
and to Terri and Craig

**MACROECONOMICS**  
**Principles, Problems, and Policies**

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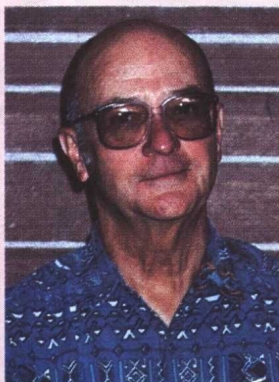
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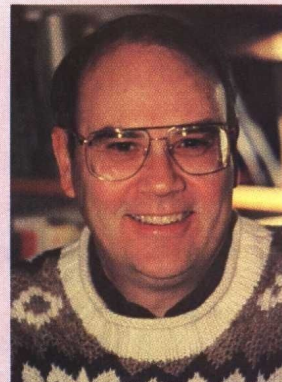
### **Campbell R. McConnell**

earned his Ph.D. from the University of Iowa after receiving degrees from Cornell College and the University of Illinois. He taught at the University of Nebraska—Lincoln from 1953 until his retirement in 1990. He is also coauthor of *Contemporary Labor Economics*, 4th ed. (McGraw-Hill) and has edited readers for the principles and labor economics courses. He is a recipient of both the University of Nebraska Distinguished Teaching Award and the James A. Lake Academic Freedom Award, and is past-president of the Midwest Economics Association. Professor McConnell was awarded an honorary Doctor of Laws degree from Cornell College in 1973 and received its Distinguished Achievement Award in 1994. His primary areas of interest are labor economics and economic education. He has an extensive collection of jazz recordings and enjoys reading jazz history.



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# PREFACE

We are pleased to present the thirteenth edition of *Economics* (and its companion editions *Macroeconomics* and *Microeconomics*). *Economics* continues to be the top-selling economics text in the United States—with an expanded market share in the twelfth edition. Moreover, the Russian-language version of *Economics* is the leading economics text in Russia. More than 1 million Russians have learned about market economics from it since the fall of communism. The Canadian and Australian adaptations of this book, and its translations into French, Spanish, and other languages, have further extended its reach.

Capitalism in Russia, interest-rate hikes, GATT and NAFTA, renewed productivity growth, the balanced budget amendment—what a remarkable time for teaching and learning macroeconomics! More than ever before it is clear that people who comprehend economic principles will be better able to make sense of the emerging world and have an advantage functioning in it. We thank each of you using *Macroeconomics*, wherever you are in this rapidly changing world, for granting us a modest role in your efforts to teach or learn this vital subject.

## WHAT'S NEW?

This edition has been thoroughly revised, polished, and updated. Many of the changes have been motivated by the comments of 43 reviewers, 9 participants in focus groups and 124 respondents to a questionnaire. We sincerely thank each of these contributors and have acknowledged them at the end of this preface.

Here, we strive only for an overview of the changes in the thirteenth edition; chapter-by-chapter details are provided in the *Instructor's Resource Manual*.

## New Chapter

We have written a new chapter for this edition.

- ***The United States in the Global Economy.***

The material throughout Part 1 has been condensed and rearranged to allow for an early and comprehensive new chapter (Chapter 6) on the global economy. This chapter contains not only descriptive material (volume and pattern of world trade), but also essential theory (comparative advantage, exchange rates) and institutional features (trade barriers, GATT, EU, NAFTA). By providing the basics of international trade and finance, the chapter is a springboard for the instructor who wishes to fully integrate macro materials into a global framework.

## New Features

The thirteenth edition contains two new features—one adding another global dimension to *Macroeconomics*, the other making the book more interactive.

- ***Global Perspectives.*** We have added twenty-five Global Perspective sections—most containing charts—throughout the book to compare the United States economy with other nations. To merely state, for example, United States' rates of inflation, unemployment, or taxes, the size of the public debt and the underground economy, or the amount of exports without international comparisons denies students the global context needed for meaningful comparisons.

- ***Key Questions (with Answers).*** In each chapter we have designated two to five end-of-chapter questions as “Key Questions,” providing answers in the back of the text. Many of these questions are quantitative and are designed to help the student work through and understand basic concepts. The student is alerted within the chapters as to when a particular Key Question is relevant. Students wanting to immediately test their understanding can turn to the specially marked Key Question, checking their answer against the end-of-book answer. Others may want to wait until they have read the full chapter before an-



swering the Key Questions. Either way, the Key Questions make this edition of *Macroeconomics* more interactive.

## Reconstituted Macro Theory

The macro analysis has been carefully rethought and restructured for logical development of the ideas and to provide greater flexibility for instructors. Because these changes are extensive, we describe them more fully.

- **Chapters 7 and 8** on national income accounting and macroeconomic instability have undergone only minor revision.
- **Chapter 9** addresses the components of the private, closed aggregate expenditures (AE) model and examines equilibrium GDP. We have abridged the discussion of classical economics, quickly getting the student into the AE model. We present the AE theory as part of integrated modern macro rather than emphasizing disputes between “camps.” Comparison of schools of macroeconomic thought is deferred to Chapter 16 on alternative perspectives.
- **Chapter 10** examines changes in equilibrium GDP and the multiplier in the private, closed economy. It then brings in the net export and government components of the aggregate expenditures model, the latter from the previous edition’s chapter on fiscal policy. Then, recessionary and inflationary gaps are considered, along with historical applications of these concepts (the Great Depression and Vietnam inflation).
- **Chapter 11** develops the aggregate demand–aggregate supply (AD-AS) model, with two optional sections which (1) derive the AD curve from the AE model, and (2) show how shifts in the AD curve and AE curve are related. We anticipate that most instructors will assign the AE chapters, but instructors wishing to use only AD-AS can delete the AE chapters along with these optional sections in Chapter 11. With in-class supplementation, Chapter 11’s section on the multiplier with inflation could serve as a springboard for instructors to develop the concepts of the MPC, MPS, and multiplier (the latter in an AD-AS framework).
- **Chapter 12** on fiscal policy has been recast entirely in terms of AD-AS.

We believe the new organization of the macroeconomic theory accomplishes three goals.

- Most importantly, by eliminating all “jumping” between models, the AE and AD-AS models are bet-

ter integrated for the majority of professors who teach both. The new progression is: National income accounting, macroeconomic instability, the AE model, derivation of AD from the AE model, addition of AS, and application of the AD-AS model to fiscal policy (and later to monetary policy).

- Second, the new organization provides an exclusive AD-AS option (Chapters 11 and 12 and beyond) for those desiring it.
- Finally, the two AE chapters are now unencumbered with AD-AS sections for instructors wishing to emphasize the AE model.

## Consolidated Introductory Chapters

We have consolidated the introductory chapters for clearer focus and to make room for the new Chapter 6 on the global economy. The two twelfth-edition chapters on the private and public sectors are combined into new Chapter 5 (The Mixed Economy) in this edition. Also, new Chapter 4 (previously Chapter 5) now meshes the former Chapter 3 discussion of pure capitalism with analysis of the market system. This is facilitated by relocating supply and demand analysis as Chapter 3 in this edition.

## The Economic Perspective

We have placed greater emphasis on the economic way of thinking. In Chapter 1 we have greatly expanded the section on the economic perspective, discussing scarcity and choice, rational behavior, and marginal analysis. In Chapter 2 we use the ideas of marginal benefits and marginal costs (Figure 2-2) to determine the optimal position on the production possibilities curve. We then take opportunities to reinforce the economic perspective in the remainder of the book.

## Culling and Tightening

Our considerable culling and tightening in the twelfth edition has been well received by instructors and, of course, students. Buoyed by that response, we have again looked to delete the archaic, remove redundancy, tighten sentences, and reduce formality. In further economizing on words, we were careful *not* to reduce the thoroughness of our explanations. Where needed, the “extra sentence of explanation” remains a distinguishing characteristic of *Macroeconomics*.



## Other New Topics and Revised Discussions

Along with the changes just discussed, there are many other revisions.

- **Part 1. Chapter 1:** Reorganization of the “policy” section; new discussion of the correlation-causation fallacy. **Chapter 2:** Clarification of productive versus allocative efficiency; new application on lumber versus owls. **Chapter 3:** New examples: increased demand for broccoli, carrots, guns; reduced supply of haddock. **Chapter 4:** Expanded discussion of property rights. **Chapter 5:** New discussions on growth of transfer payments and lottery revenues.

- **Part 2. Chapter 8:** Revised Figure 8-7 to allow for output beyond the full-employment output; new Figure 8-8 on nominal versus real interest rate. **Chapter 10:** Major new aggregate expenditure applications: the Great Depression and Vietnam inflation. **Chapter 11:** Removal of “Keynesian” and “classical” labels from the horizontal and vertical ranges of AS; new distinction between full-employment GDP and full-capacity GDP. **Chapter 12:** New presentation of fiscal policy in the AD-AS framework (Figures 12-1 and 12-2); revised discussion of the full-employment budget (new Figure 12-4).

- **Part 3. Chapter 13:** New discussions on the relative decline of bank and thrift assets and globalization of financial activity. **Chapter 15:** New AD-AS presentation of monetary policy (Figure 15-2); new discussions of recent successes of monetary policy; the “loss of control” issue; the effect of interest-rate changes on interest income; and the recent policy focus on the Federal funds rate. New Figure 15-3 provides an extended AD-AS “overview” of macro theory and policy.

- **Part 4. Chapter 16:** New title: “Alternative Views of Macro Theory and Policy”; AD-AS comparison of classical and Keynesian analysis (from twelfth-edition Chapter 10). **Chapter 17:** New discussion of employment and training policy. **Chapter 18:** New topics: entitlements; ownership of the public debt (Figure 18-1); debt as a curb on fiscal policy; Deficit Reduction Act of 1993. **Chapter 19:** Clarification of demand and efficiency factors in growth (Figure 19-1); new Figure 19-4 on the educational attainment of the population; discussions of slow growth of median family income (new Figure 19-5) and the new resurrection of Doomsday models (Figure 19-6).

- **Part 5. Chapter 20:** New topics: supply and demand analysis of exports and imports (Figures 20-3, 20-4, and 20-5); government export promotion poli-

cies; renewal of China’s most-favored-nation status; and negotiations with Japan. **Chapter 21:** Revised discussion of the managed float; updated discussion of recent American trade deficits. **Chapter 22:** New table on the distribution of world income (Table 22-1); a reworked and extended discussion of population problems; new discussion of the difficulties associated with foreign aid; reworked discussion of the debt crisis; new section on the “New Global Compact.” **Chapter 23:** Progress report on the Russian transition to capitalism.

## New Last Words

Reviewers have indicated they appreciate the “Last Word” minireadings and their placement toward the conclusion of each chapter. These selections serve several purposes: Some provide current or historical real-world applications of economic concepts; others reveal human interest aspects of economic problems; some present contrasting or nonmainstream points of view; and still others present economic concepts or issues in a global context. Eight of the Last Words are new and others have been revised and updated.

The new topics are: Cuba’s declining production possibilities (Chapter 2); ticket scalping (Chapter 3); alternative views on why Europe’s unemployment rate is so high (Chapter 11); the use of the dollar around the world (Chapter 13); the problem of entitlements (Chapter 18); pros and cons of economic growth (Chapter 19); speculation in currency markets (Chapter 21); and China as an emerging economic power (Chapter 23).

## New Software and Multimedia Materials

The extensive ancillaries available with the thirteenth edition for either students or instructors are described later in the Preface. Three new items are described here.

### PowerPoint Presentation/Tutorial Software for Windows

C. Norman Hollingsworth of Dekalb College, North Campus, Dunwoody, Georgia, has prepared a multi-slide presentation for every chapter in the thirteenth edition (2000 slides in all). This Windows software includes a full run-time version of PowerPoint, allowing instructors to use these presentations “right out of the box” without having to purchase the PowerPoint soft-



ware program. Owners of PowerPoint software can edit any slide in the set or add additional slides to the set to more closely match their classroom needs. This software is interactive, flexible, and in full color. While designed to enhance the instructor's classroom lecture/discussion, it can also be used in a computer lab for tutorial/review purposes.

### Interactive Key Graphs Presentation/Tutorial Software for Windows

The twelve Key Graphs in the thirteenth edition are critical for student understanding of the concepts in introductory economics. With this Key Graphs Tutorial Software students will be able to study and review critical concepts in the IBM-PC/Windows environment in a computer lab or on their own PC. Instructors may also use this software in class, manipulating the full-color graphs to dynamically illustrate concepts in ways that a book or overhead transparencies never can.

### MULTIMEDIA: Principles of Economics on CD-ROM

Charles Link, Jeffrey Miller, and Fred Hofstetter of the University of Delaware have prepared a stand-alone multimedia CD-ROM for principles of economics that contains both an instructor and a tutorial component. The CD-ROM, with sound, video, and animation, includes substantial interactive tutorial material for creative learning. There are eight content modules covering the topics in macroeconomics and eight modules covering microeconomics.

In addition we continue to provide *Concept Master*, a DOS-based student tutorial by William and Irene Gunther, updated to reflect the changes in the thirteenth edition, *Macroeconomics: A Lab Course* by Norris Peterson, for use with IBM-PCs, and *DiscoverEcon* by Gerald Nelson and Wesley Seitz, for use with the Macintosh computer.

## FUNDAMENTAL GOALS

Although the thirteenth edition bears only a modest resemblance to the first, the basic purpose remains the same—to introduce the beginning economics student to principles essential in understanding the basic economizing problem, specific economic issues, and the policy alternatives available for dealing with them. We hope that an ability to reason accurately and

objectively about economic matters and a lasting interest in economics will be two byproducts of this basic objective. Our intention remains to present the principles and problems of economics in a straightforward, logical fashion. Therefore, we continue to stress clarity of presentation and organization.

## PRODUCT DIFFERENTIATION

This text embraces a number of distinguishing features.

- ***Comprehensive explanations at an appropriate level.*** We have attempted to craft a comprehensive, analytical text which is challenging to better students, yet accessible—with appropriate diligence—to average students. We think the thoroughness and accessibility of *Macroeconomics* enables the instructor to select topics for special classroom emphasis with confidence that students can independently read and comprehend other assigned material in the book.
- ***Comprehensive definition of economics.*** The principles course sometimes fails to provide students with a comprehensive and meaningful definition of economics. To avoid this shortcoming, all of Chapter 2 is devoted to a careful statement and development of the economizing problem and an exploration of its implications. This foundation should be helpful in putting the many particular subject areas of economics in proper perspective.
- ***Fundamentals of the market system.*** Economies the world over are making the difficult transition from planning to markets. Our detailed description of the institutions and operation of the market system in Chapter 4 is even more relevant than before. Property rights, freedom of enterprise and choice, competition, the role of profits—these and related concepts are poorly understood by the typical student. We think we have accorded them the elaboration they require.
- ***Early integration of international economics.*** The principles and institutions of the global economy are given early treatment. Chapter 6 examines the growth of world trade, the major participants in world trade, specialization and comparative advantage, the foreign exchange market, tariffs and subsidies, and various trade agreements. This strong, accessible, introduction to international economics permits “globalization” of later discussions of macroeconomics.



- **Early and extensive treatment of government.** Government is an integral component of modern capitalism. Its economic role, therefore, should not be treated piecemeal nor as an afterthought. This text introduces the economic functions of government early and accords them systematic treatment in Chapter 5. The controversy about the proper role of government in stabilizing the economy is central to the macroeconomic policy chapters.

- **Emphasis on economic growth.** This volume continues to emphasize economic growth. Chapter 2 employs the production possibilities curve to show the basic ingredients of growth. Chapter 19 discusses the rate and causes of American growth, in addition to some of the controversies surrounding it. Chapter 22 focuses on the less-developed countries and the growth obstacles they confront. A segment of Chapter 23 concerns the stalling of growth in the former Soviet Union.

## ORGANIZATION AND CONTENT

The prerequisite of an understandable economics text is the logical arrangement and clear exposition of subject matter. This book has been organized so the exposition of each particular topic and concept is directly related to the level of difficulty which the average student is likely to encounter. For this reason we have given the aggregate expenditures model, aggregate demand and aggregate supply, money and banking, and international economics comprehensive and careful treatments. Simplicity here is correlated with comprehensiveness, not brevity.

Furthermore, our experience suggests that in treating each basic topic it is desirable to couple analysis with policy. Generally, a three-step development of analytical tools is employed: (1) verbal descriptions and illustrations, (2) numerical examples, and (3) graphical presentation based on these numerical illustrations.

The material in this book is organized into five parts: Part 1: An Introduction to Economics and the Economy; Part 2: National Income, Employment, and Fiscal Policy; Part 3: Money, Banking, and Monetary Policy; Part 4: Problems and Controversies in Macroeconomics; and Part 5: International Economics and the World Economy. The Table of Contents lists the specific chapters in each part and the topics within each chapter.

## PEDAGOGICAL AIDS

As in previous editions, *Macroeconomics* is highly student-oriented. The new "To the Student" statement at the beginning of Part 1 details the many pedagogical aids.

## SUPPLEMENTS

The thirteenth edition is accompanied by a variety of high-quality supplements.

### Study Guide

Professor William Walstad—one of the nation's foremost experts on economic education—has prepared the thirteenth edition of the *Study Guide*, which many students find to be indispensable. It contains for each chapter an introductory statement, a checklist of behavioral objectives, an outline, a list of important terms, hints and tips, fill-in questions, problems and projects, objective questions, and discussion questions. The glossary found at the end of *Macroeconomics* also appears in the *Study Guide*.

The *Guide* is a superb "portable tutor" for the principles student. Separate *Study Guides* have been prepared to correspond with the individual macro and micro paperback editions of the text.

### Instructors' Resource Manual

Professor Joyce Gleason of Nebraska Wesleyan University has revised and updated the *Instructor's Resource Manual*. It comprises chapter summaries, listings of "what's new" in each chapter, teaching tips and suggestions, learning objectives, chapter outlines, data and visual aid sources with suggestions for classroom use, and questions and problems. Answers to the text's end-of-chapter questions are also found in the manual (with the exception of the answers to the Key Questions, which are found at the end of *Macroeconomics*).

Available again in this edition is a computerized version of the *Manual*, suitable for use with IBM-PC compatibles and Macintosh computers. Users of *Economics* can print out portions of the *Manual's* contents, complete with their own additions and alterations, for use as student handouts or in whatever ways they might wish. This capability includes printing out answers to the end-of-chapter questions not answered in the textbook.



### Three Test Banks

This edition of *Macroeconomics* is supplemented by two test banks of objective, predominately multiple-choice questions and a third test bank of short-answer essay questions and problems.

- **Test Bank I** now comprises about 5200 questions, all written by the text authors.
- **Test Bank II**, by Professor Walstad, contains over 4700 questions.
- **Test Bank III**, also prepared by Professor Walstad, contains “constructive response” testing to evaluate student understanding in a manner different from conventional multiple-choice and true-false questions. Suggested answers to the essay and problem questions are included.


For all test items in Test Banks I and II, the nature of each question is identified (for example, G = graphical; C = conceptual, etc.) as are the page numbers in the text containing the material which is the basis for each question. Also, each chapter in Test Banks I and II begins with a list which groups questions by topics. Text adopters can use this sizable number of questions, organized into three test banks of equal quality, with maximum flexibility. The fact that the text authors and *Study Guide* authors have prepared all the test items assures the fullest possible correlation with the text content.

### Additional Supplements

- **Computerized testing.** Test Banks I, II, and III are available in computerized versions, both for IBM-PC and compatibles and for Macintosh computers. These systems include test generation, capable of producing high-quality graphs from the test banks. They also can generate multiple tests, with versions “scrambled” to be distinctive, and other useful features. This software will meet the various needs of the widest spectrum of computer users. Separate versions of the Computerized Test Banks have been prepared to correspond with the individual macro and micro editions of the text.
- **Color transparencies (figures and tables).** Over 250 new full-color transparencies for overhead projectors have been prepared especially for the thirteenth edition. They encompass all the figures appearing in *Economics* and are available on request to adopters. New to this edition are overhead transparencies for the tables in the book. As with the Computerized Test Banks, the transparencies are also

available in versions corresponding to *Macroeconomics* and *Microeconomics*.

- **Student software.** *Concept Master III*, a student software package, has been prepared for users of IBM-PCs and compatibles by William Gunther of the University of Alabama and Irene Gunther. The previous version of this software was widely praised by its users. It provides extensive and varied computer-assisted study material.

More than twelve graphic-based tutorial programs provide an opportunity for students to study key topics in the book in an interactive way. The tutorial programs are linked to the text. Selected end-of-chapter questions relating to the content of one of the tutorial programs are highlighted by a floppy disk symbol . The questions themselves are not necessarily contained within the tutorial program, but the tutorial does contain material relating directly to the concepts underlying the highlighted questions.

In addition to the tutorial programs, students can quiz themselves with a self-testing program accompanying each text chapter. The package also features three macroeconomic simulation games. Some of the simulations are elementary, others are more complex. Wherever possible, they include a global perspective. Also included in the package are a list of key terms, a pop-up calculator for computations, and a section using the Key Graphs in the text to direct students to the appropriate tutorial lesson.

- **Macroeconomics: A Lab Course.** Professor Norris Peterson of Pacific Lutheran University, working with the talented staff of Intellipro, Inc., has created the software package *Macroeconomics: A Lab Course*, to be used in macroeconomics courses. It builds the basic macroeconomic framework in sequential, “building block” laboratory simulations that allow students to grasp the fundamental concepts of macroeconomics in a dynamic and creative manner.
- **DiscoverEcon.** For users of MacIntosh computers, there is an exciting tutorial program, *DiscoverEcon*. Developed by Professors Gerald Nelson and Wesley Seitz of the University of Illinois, this innovative package uses Apple’s HYPERCARD programming environment to produce an extremely interactive learning experience. Dynamic shifts of curves, screen animation, sound effects, and simple-to-use command keys are features of this program.
- **Videos.** New videotape materials have been assembled for this edition to illustrate fundamental concepts and economic issues in a manner that will be



equally effective in classroom settings or media resource centers. Among these materials are numerous videos selected from “Adam Smith’s Money World” that may be used when covering such topics as production possibilities, the role of government, the labor market, monopolistic competition, and international economics. Your local McGraw-Hill representative can provide details on all video ancillaries for the text.

## DEBTS

The publication of this thirteenth edition will extend the life of *Economics* well into its fourth decade. This gracious acceptance has no doubt been fostered by the many teachers and students kind enough to provide their suggestions and criticisms.

Our colleagues at the University of Nebraska—Lincoln and Pacific Lutheran University have generously shared knowledge of their specialties with us and have provided encouragement. We are especially indebted to Jerry Petr and Norris Peterson, who have been most helpful in offsetting our comparative ignorance in their areas of specialty.

As indicated, the thirteenth edition has benefited from a number of perceptive reviews. In both quantity and quality, they provided us the richest possible

source of suggestions for this revision. These contributors are listed at the end of this Preface.

Professor Thomas Barbiero of Ryerson Polytechnical Institute in his role as coauthor of the Canadian edition of *Macroeconomics* has provided helpful ideas. Also, we are most appreciative of several good suggestions for improvement provided by Professor Walstad, the author of the *Study Guide*. Thanks also go to Professor Mark Lovewell, who coded the new Test Bank items by type of question and identified the corresponding text page numbers for all the items.

We are greatly indebted to the many professionals at McGraw-Hill—and in particular Lucille Sutton, Mike Elia, Edwin Hanson, Joseph Murphy, Joe Piliero, Victoria Richardson, Annette Mayeski, and Jonathan Hulbert, for their expertise in the production and distribution of the book. Cathy Hull and Roy Weimann provided the creative illustrations for the Last Word readings. The positive contributions of these highly skilled professionals are gratefully acknowledged.

With this much assistance, we see no compelling reason why the authors should assume full responsibility for errors of omission or commission. But we bow to tradition.

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