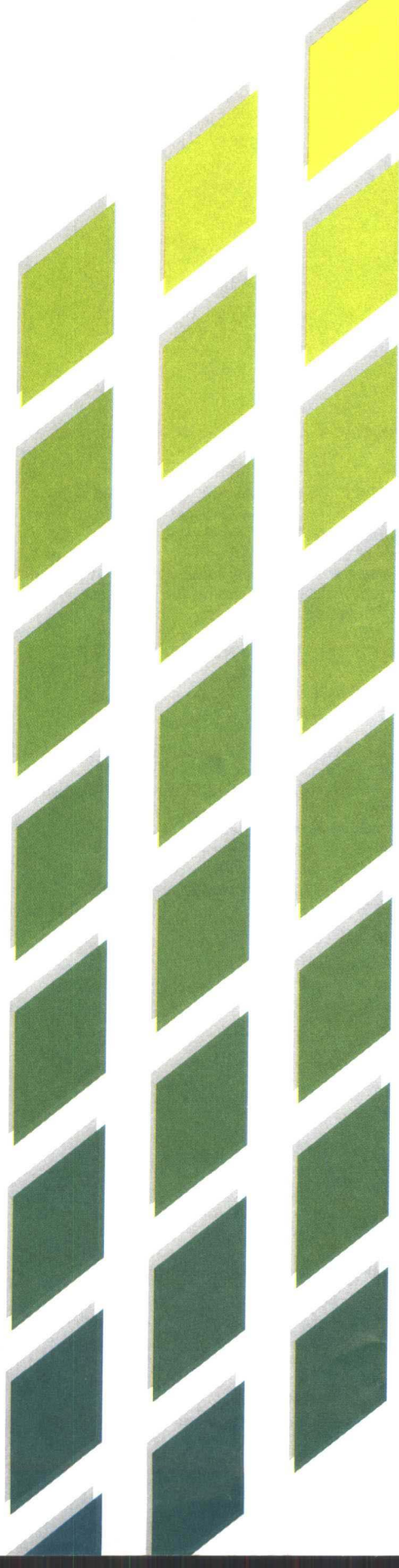


Macro- Economics

T W E L F T H E D I T I O N

CAMPBELL R. McCONNELL
STANLEY L. BRUE



MACRO- ECONOMICS

Principles, Problems,
and Policies

TWELFTH EDITION

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Macroeconomics: Principles, Problems, and Policies

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PREFACE

The publication of the twelfth edition of *Economics* (and its accompanying editions of *Macroeconomics* and *Microeconomics*) follows the most successful edition of this book to date. Naturally, we are pleased that *Economics* continues to be the best selling economics text in the United States. Moreover, we are pleasantly surprised that the Russian translation of *Economics* will soon be the leading economics text in the former Soviet Union; Politizdat Press has taken orders for nearly 500,000 copies. This fact dramatizes how remarkable these times are for teaching and learning economics! The message of our day is clear: People who comprehend economic principles will have a great advantage functioning in, and making sense of, the emerging world. We express our sincere thanks to each of you using *Macroeconomics* for granting us a modest role in your efforts to teach or learn this globally important subject.

THE REVISION

This edition of *Macroeconomics* has been thoroughly revised, polished, and updated. Many of the changes have been motivated by the comments of 36 reviewers and another 13 participants in focus groups. We are especially grateful to these scholars and acknowledge them by name at the end of this preface.

We strive only for an overview of the changes in this edition here; chapter-by-chapter details are provided in the *Instructor's Resource Manual* accompanying this book.

Consolidation of Introductory Chapters

Responding to reviewer suggestions, we have reduced the number of introductory chapters from eight to six, allowing for a quicker start into the macroeconomic theory. The previous edition's Chapters 5 and 7 are

consolidated into new Chapter 5 and old Chapters 6 and 8 are combined into new Chapter 6. We have resisted the temptation to compress the introductory material even further, believing that most students inadequately understand the characteristics of capitalism (Chapter 3), the functioning of the market system (Chapter 5), and the extensive role of government in the modern economy (Chapter 6). A strong introduction helps students in their quest to understand and apply macroeconomic theory. We believe we have provided such an introduction, but now in a more expeditious form.

New Topics and Analysis

Much attention has been given to applying economics to the major issues of our day. Also, this edition contains new formal economic analyses. Examples of new discussions and analyses include:

- **The switch to GDP (Gross Domestic Product) accounting.** This edition fully incorporates the United States' recent major switch from GNP to GDP accounting. In particular, Chapter 7 has been carefully revised to present the new accounting. Also, in the macro theory chapters we have designated real output as GDP, rather than NNP and have substituted gross investment, I_g , for net investment, I_n , throughout the discussion and diagrams.
- **Early introduction of comparative advantage theory.** In an optional new section in Chapter 3, we use production possibilities tables to illustrate comparative advantage. By combining this new material with Chapter 4's optional discussion of exchange rates, instructors can effectively introduce international economics early in the course.
- **The crisis in American financial institutions.** A major section in Chapter 13 examines bank and thrift failures, including the role of deposit insurance.
- **Absorption of parts of monetarism and rational expectations theory into the mainstream**

macroeconomics. Although we continue to contrast the various macroeconomic theories, a new section of Chapter 16 emphasizes that mainstream macroeconomics has absorbed important aspects of monetarism and rational expectations theory.

- **Economic growth in Japan.** Chapter 2 now applies production possibilities analysis to relative growth rates in Japan and the United States and stresses the higher saving and investment rates in Japan. Also, Chapter 19 on economic growth now concludes with a Last Word on the Japanese growth miracle.
- **Causes of the productivity slowdown.** Chapter 19 on economic growth contains a completely rewritten section on the causes of the American productivity slowdown.
- **Soviet economy in transition.** A completely rewritten chapter (Chapter 23) presents an up-to-date, thorough analysis of the present crisis and reform efforts in the Soviet Union.
- **Other new discussions.** There are numerous other new discussions in this edition, a few examples being: the Ricardian equivalence theorem; money market deposit accounts and money market mutual funds; the Federal funds market; the social security surplus and the public debt; the Budget Consolidation and Budget Enforcement Acts of 1990; the economic impact of import quotas; strategic trade theory; the proposed North American free-trade zone; Uruguay Round negotiations; and the purchasing power parity theory of exchange rates.

New Last Words

Reviewers indicate that 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; and still others present economic concepts or issues in a global context. Eleven Last Words are new and others have been revised and updated.

We have selected Last Word topics which are both highly relevant to the chapter’s discussion *and* interesting to the reader. New topics are: fast-food lines viewed from the economic perspective (Chapter 1); the impact of Operation Desert Storm on Iraqi production possibilities (Chapter 2); the increasing use of barter (Chapter 3); the effect of supply interdiction on the price of marijuana (Chapter 4); the mystery of the \$96 billion of

paper money unaccounted for by the Federal Reserve (Chapter 13); the bank panics of 1930–1933 (Chapter 14); the Fed as a series of metaphors (Chapter 15); international comparisons of public debt among industrial nations (Chapter 18); the Japanese growth miracle (Chapter 19); the difficulties of “buying American” when many product components are imported (Chapter 22); and an obituary of the Soviet Union (Chapter 23).

Pedagogical Improvements

The principles course has become increasingly demanding for students. Globalization of economies, developments in economic theory, and modern economic problems have added new, sometimes complex material to the course. Concise and understandable explanations are more important than ever before. Accordingly, we have directed much effort toward improving the pedagogy of *Macroeconomics*. We have “gone back to the basics,” attempting to bolster what we believe to be this book’s comparative advantages: its readability and accessibility. Examples of our pedagogical changes include:

- **Quick Reviews within each chapter.** Two or three new reviews within the body of each chapter allow the student to pause and ponder key points. We believe these Quick Reviews will also help students as they study for exams.
- **Key Graphs.** Students often have a difficult time distinguishing which of the hundreds of graphs in economics are of fundamental importance. To direct students’ attention to the essential graphs we have designated 13 figures as Key Graphs. These graphs are specially designed and labeled to make them easily identifiable. Figures 2-1 and 4-5 are representative. A complete listing of the Key Graphs can be found in the Brief Table of Contents on pages ix–x.
- **Motivational introductions.** In many chapters new introductions are added to stimulate reader interest in the chapter’s contents. These introductions relate to students’ everyday experiences and observations. The opening material for Chapters 2, 6, 8, 14, and 19 is illustrative.
- **Full-color layout.** The full range of colors in the designer’s palette makes for a more interesting text and is used functionally to clarify many graphs and diagrams.
- **Functional use of color photos.** Unobtrusive chapter-opening photos are employed as “teasers” for the content of the Last Words, where larger photos are

found. The front and back photos visually unite the beginning and ends of the chapters and are designed to spark reader interest in the Last Words.

- **Shorter paragraphs.** In keeping with trends in popular and academic publishing, we have shortened scores of long paragraphs.
- **Tighter sentences.** The two authors and a talented McGraw-Hill editor scrutinized every sentence in the book for unnecessary verbiage. Collectively, we were able to tighten hundreds of sentences without altering the overall style of writing. In 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*.
- **Numbered lists and added subheads.** We have substituted numbered and labeled lists for verbal strings of “First,” “Second,” and “Third.” The idea here is to break material into smaller parcels to help students more readily retain the content. Similarly, we have used subheads more liberally so the organizational structure of each chapter and topic will be clearer for readers.
- **Footnote deletion.** We have significantly reduced the number of footnotes. Several lengthy explanatory footnotes have been deleted; a number of shorter footnotes have been integrated into the text. Footnotes suggesting additional reading have been judiciously pruned.
- **Added labeling in graphs.** Taking great care to avoid clutter, in a number of cases we have added labeling in figures to help guide the reader through the analysis. These labels are set in strong type so they are highly readable both within the book and on transparencies.
- **New diagrams.** Some of the added diagrams depict new graphical analyses, such as aggregate demand–aggregate supply analysis of growth (Figure 19-3) and a comparison of the effects of tariffs and quotas (Figure 20-3). Other new diagrams should help students visualize the interrelations of the concepts involved. Examples of these diagrams are Figures 8-4, 10-5, 11-4, and 11-5.
- **Clarified explanations of difficult subject matter.** We have continued to look for ways to explain difficult material more clearly. Even minor improvements in language or labeling of graphs can often help students better understand the material. Improvements of this sort have been made in numerous places throughout the text. Good examples are our revised discussions of efficiency (Chapter 2),

the ratchet effect (Chapter 9), and demand-pull and cost-push inflation in the long run (Chapter 17).

New and Enhanced Ancillaries

The ancillaries in this edition’s package are discussed later in this Preface, but three new items are particularly noteworthy.

- **Test Bank III.** New to the *Macroeconomics* package is a test bank allowing an alternative testing approach to the predominantly multiple-choice questions in Test Banks I and II. Written by Professors William Walstad and Joyce Gleason, Test Bank III contains questions that emphasize “constructive response” concepts. Students are more actively involved in creating answers to these questions, which provide a valuable alternative to conventional test questions.
 - **Augmented Test Bank I.** We have added approximately 1200 questions to the macroeconomic version of Test Bank I.
 - **New macro simulation software.** *Macroeconomics: A Lab Course*, a new macro simulation program, greatly advances the art of economics software. This program is highly interactive and visually spectacular. Also, the successful *Concept Master* software introduced with the previous edition of *Macroeconomics* has been completely updated. Both these software programs are directly tied to the contents of *Macroeconomics*.
 - **Enhanced video materials.** The power of videodisks is harnessed in this edition, to provide enhanced classroom presentation of visual material. Also, there are new videotape materials that have been carefully designed for effective classroom use.
- We trust that the outcome of this detailed revision effort is a text and package that are clearly superior to their predecessors.

FUNDAMENTAL GOALS

The basic purpose of *Macroeconomics* continues to be to introduce the beginning economics student to those principles essential to an understanding of the fundamental economic problem and the policy alternatives available for dealing with this problem. We hope that the ability to reason accurately and objectively about economic matters and the development of a lasting interest in economics will be two valuable by-products of this basic objective. Our intention remains to present

the principles and problems of economics in a straightforward, logical fashion. To this end, we continue to put great stress on clarity of presentation and on logical organization.

PRODUCT DIFFERENTIATION

This text embraces a number of features which perhaps distinguish it from other books in the field.

- **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 hard work—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 help put the many particular subject areas of economics in proper perspective.
- **Early integration of international economics.** Comparative advantage is discussed in detail in Chapter 3, exchange rates are explained as an application of supply and demand in Chapter 4, and the international trade sector of the American economy is highlighted in Chapter 5. This strong introduction to international economics permits “globalization” of later discussions of macroeconomics, where appropriate.
- **Early treatment of government.** For better or worse, government is an integral component of modern capitalism. Its economic role, therefore, should not be treated piecemeal or as an afterthought. This text introduces the economic functions of government early and accords them systematic treatment in Chapter 6. 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 put considerable emphasis on economic growth. Chapter 2 uses the production possibilities curve to lay bare the basic ingredients of growth. Chapter 19 discusses the rate and causes of American growth, in addition to some of the controversies

surrounding growth. Chapter 22 focuses on the less developed countries and the growth obstacles which confront them. A segment of Chapter 23 concerns the stalling of growth in the former Soviet Union.

- **Issue chapters.** As most students see it, Part 4 on macroeconomic issues is where the action is. We have sought to guide the action along logical lines through the application of appropriate analytical tools. Our bias in these parts is in favor of inclusiveness; each instructor can effectively counter this bias by omitting those chapters felt to be less relevant for a particular group of students.

ORGANIZATION AND CONTENT

We believe that the basic prerequisite of an understandable economics text is the logical arrangement and clear exposition of subject matter. This book has been organized so that the exposition of each particular topic and concept is directly related to the level of difficulty which in our experience the average student is likely to encounter. For this reason macro employment theory and money and banking are given comprehensive and careful treatments. Simplicity here is correlated with comprehensiveness, not brevity. Furthermore, our experience suggests that in the treatment of each basic topic—aggregate demand and aggregate supply, aggregate expenditures analysis, money and banking, and international economics—it is highly desirable to couple analysis with policy. A three-step development of basic 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 basic parts. They are: 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 details the contents within each chapter.

STUDENT FRIENDLY: STUDY AIDS

Macroeconomics is highly student oriented.

- 1 Students who are comfortable with graphical analysis and a few related quantitative concepts are in an advantageous position to understand principles of eco-

nomics. To help students in this regard, an appendix to Chapter 1 carefully reviews graphing, line slopes, and linear equations.

2 The introductory paragraphs of each chapter state objectives, present an organizational overview of the chapter, and relate the chapter to what has been covered before and what will follow.

3 Because a significant portion of any introductory course is devoted to terminology, terms are given special emphasis. In particular, each important term is in **boldface** type where it first appears in each chapter. We have tried to make all definitions clear and succinct. At the end of each chapter all new terms are listed in the Terms and Concepts section. Finally, at the end of the book is a comprehensive glossary. This glossary also is contained in the *Study Guide* which accompanies *Macroeconomics*.

4 As we noted earlier, each chapter contains two or three "Quick Reviews" at appropriate places in the chapter to reinforce key points for students and help them study for examinations.

5 Figures worthy of intensive study are given special design treatment and designated as "Key Graphs."

6 The legends accompanying all diagrams are written so that they are self-contained analyses of the relevant concepts. This is a strategic means of reinforcing student comprehension.

7 Much thought has gone into the end-of-chapter questions. Though purposely intermixed, the questions are of three general types. Some are designed to highlight the main points of each chapter. Others are "open-end" discussion, debate, or thought questions. Wherever pertinent, numerical problems which require the student to derive and manipulate key concepts and relationships are employed. Numerical problems are stressed in those chapters which deal with analytical material. Some optional "advanced analysis" questions accompany certain theory chapters. These problems usually involve the stating and manipulation of basic concepts in equation form. Answers to *all* end-of-chapter questions—both quantitative and essay—are provided in the *Instructor's Resource Manual*.

8 Many of the end-of-chapter questions deal with subject matter that is reinforced by the excellent computerized tutorial, *Concept Master II*, that accompanies the text. A floppy disk symbol  appears in conjunction with questions whose content correlates to a lesson in the tutorial program.

9 In addition to its considerable esthetic merit, the multicolor format of *Macroeconomics* stresses the use of color so students will more quickly and easily perceive the ideas expressed in each diagram and chart.

INSTRUCTOR FRIENDLY: THE SUPPLEMENTS

Macroeconomics is accompanied by supplements which we feel equal or surpass competing texts in terms of both quantity and quality.

Study Guide

Professor William Walstad has prepared a new revision of the *Study Guide* to accompany *Macroeconomics* which many students find to be an indispensable aid. It contains for each chapter an introductory statement, a checklist of behavioral objectives, an outline, a list of important terms, 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*.

In this revision, Professor Walstad has added text page references for every question (true-false, multiple-choice, and discussion); has extensively revised the chapter learning objectives to add more detail; and has added discussion sections to the chapter outlines. He has also increased the number of multiple-choice questions for each chapter, and has increased the number of problems and projects for further study. The *Guide* comprises, in our opinion, a superb "portable tutor" for the principles student.

Economic Concepts

Economic Concepts provides carefully designed programmed materials for all the key analytical areas of the principles course. Revised by Professor W. H. Pope for use with *Macroeconomics*, it can be used as an effective supplement with any mainstream text.

Instructor's 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 problems. Answers to all the text's end-of-chapter questions are also found in the *Manual*.

The new edition of the *Manual* includes a full, chapter-by-chapter overview of all changes in the revision. Also, the chapter outlines have been consolidated into a separate section of the *Manual*, so they can more readily be used as a resource in classroom lectures. We

think instructors will find this *Manual* useful and time-saving.

Available again in this edition is a computerized version of the *Manual*, suitable for use with IBM-PC computers, IBM-PC compatibles, and Macintosh computers. The version for IBM-PCs and compatibles is available in both 5½-inch and 3½-inch formats. Users of *Macroeconomics* can print out portions of the *Manual's* contents, complete with their own additions or alterations, for use as student handouts or in whatever ways they might wish. This capability includes printing answers to all end-of-chapter questions.

As with the *Study Guide*, a separate edition of the *Instructor's Resource Manual* has been prepared to correspond with the macro paperback edition of *Economics*. Users of *Macroeconomics* will find that the material in the accompanying *Manual* correlates with the chapter sequencing in the text.

Three Test Banks

Macroeconomics is supplemented by two test banks of objective, predominantly multiple-choice, questions and a new test bank of short-answer and essay questions.

Test Bank I now comprises some 2800 questions, all written by the text authors; approximately 2050 are carried over from the previous edition and 750 have been prepared by the authors for the new edition.

Test Bank II, revised by Professor Walstad, contains approximately 2300 questions. For all test items in these two test banks, the nature of each question is identified (e.g., G, graphical; C, complex analysis) as are the pages in the text containing the material which is the basis for each question. Also, each chapter in *Test Banks I* and *II* has an outline or Table of Contents which groups questions by broad topics.

New to this edition, *Test Bank III* will emphasize "constructive response" testing to evaluate student understanding in a manner different from conventional multiple-choice and true-false questions. Prepared by Professors Walstad and Gleason, this unique resource emphasizes short-answer and essay questions designed to enhance critical thinking skills.

Adopters of *Macroeconomics* will be able to 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 will assure the fullest possible correlation with the content of the text.

As with the *Study Guide* and *Instructor's Resource Manual*, a separate version of the test banks have been prepared to correspond with the individual macro and micro editions of the text.

Computerized testing *Test Banks I, II, and III* are available in computerized versions, as well as print. Computerized test generation will be available for IBM-PCs and compatibles, and for Macintosh computers. All these systems include the capability to produce high-quality graphics from the test bank.

These systems will also feature the ability to generate multiple-tests, with versions "scrambled" to be distinctive, and will have other useful features. They will meet the various needs of the widest spectrum of computer users.

Color transparencies Full color transparencies for overhead projectors have been prepared especially for *Macroeconomics*. These encompass all the figures which appear in *Macroeconomics* and are available on request to adopters.

Student software For users of IBM-PCs and compatibles, a student software package, *Concept Master II*, has been prepared by Professor William Gunther, of the University of Alabama, and Irene Gunther. The previous version of this software was widely praised by its users, and it has been improved to provide even more flexibility. It provides the most extensive and varied computer-assisted study material of any software package available.

Over twelve graphics-based tutorial programs provide an opportunity for students to study key topics in the book in an interactive fashion. The tutorial programs are linked to the text. Selected end-of-chapter questions that relate 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 that relates 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 test chapter. The package also features three macroeconomic simulation games. One simulation involves a global economy in keeping with the globalization of the course and this text. Also included in the package are a list of key terms, a pop-up calculator for computations, and a section that uses the "Key

Graphs" in the text to direct students to the appropriate tutorial lesson.

Professor Norris Peterson of Pacific Lutheran University, working with the talented staff of Intellipro, Inc., has created a new 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.

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.

Videodisks New to this edition are videodisks designed to harness this exciting new technology for classroom presentation. These videodisks offer an array of graphical illustrations of key economic concepts to further student understanding.

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 is the new "MacNeil/Lehrer Quarterly Report on Economics," an exciting new series of excerpts from the acclaimed PBS news program, "The MacNeil/Lehrer Newshour." Your local McGraw-Hill representative can provide details on all new video ancillaries for the text.

DEBTS

The publication of this edition of *Macroeconomics* will extend the life of *Economics* well into its fourth decade. The acceptance of *Economics*, which was generous

from the outset, has expanded with each edition. This gracious reception has no doubt been fostered by the many teachers and students who have been 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 Professors Harish Gupta, Jerry Petr, David Rosenbaum, and Norris Peterson, who have been most helpful in offsetting comparative ignorance in their areas of specialty.

As indicated, this edition has benefited from a number of perceptive reviews. In both quantity and quality, they provided the richest possible source of suggestions for this revision. These contributors are listed at the end of this Preface.

Professors Thomas P. Barbiero and W. H. Pope of Ryerson Polytechnical Institute in their role as coauthors of the Canadian edition of *Economics* have provided innumerable suggestions for improvement. Thanks also go to Professor Lovewell who coded the new *Test Bank* items by type of questions and identified the corresponding text page number for all the items.

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Campbell R. McConnell

Stanley L. Brue



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