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**MACRO  
ECONOMICS**

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# MACRO- ECONOMICS

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

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## Macroeconomics

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## About the authors

Campbell R. McConnell earned his Ph.D. from the University of Iowa after receiving degrees from Cornell College and the University of Illinois. He is currently Carl Adolph Happold Professor of Economics at the University of Nebraska—Lincoln, where he has taught since 1953. He is also coauthor of *Contemporary Labor Economics*, 2d ed. (McGraw-Hill) and has edited readers for the principles and labor economics courses. He is a contributor to the recently published volume *The Principles of Economics Course: A Handbook for Instructors* (McGraw-Hill). He is a recipient of the University of Nebraska Distinguished Teaching Award and is past-president of the Midwest Economics Association. His primary areas of interest are labor economics and economic education. He has an extensive collection of jazz recordings and enjoys reading jazz history.

PHOTO BY KEN DUNMIRE



Stanley L. Brue did his undergraduate work at Augustana College (S.D.) and received his Ph.D. from the University of Nebraska—Lincoln. He teaches at Pacific Lutheran University, where he has been honored as a recipient of the Burlington Northern Faculty Achievement Award for classroom excellence and professional accomplishment. He teaches courses in principles of economics, labor economics, industrial organization, and the history of economic thought. Professor Brue is co-author of *Economic Scenes: Theory in Today's World*, 4th ed. (Prentice-Hall); *The Evolution of Economic Thought*, 4th ed. (Harcourt Brace Jovanovich); and *Contemporary Labor Economics*, 2d ed. (McGraw-Hill). For relaxation, he enjoys boating on Puget Sound, salmon fishing, and skiing trips with his family.

# Preface


The publication of the eleventh edition of *Economics* is accompanied by the simultaneous publication of two paperback volumes dealing with *Macroeconomics* and *Microeconomics*.

Although this volume is in a sense a “first edition,” it is based upon a hardcover text that has been well received for over three decades. This Preface discusses the features of the volume in the context of the many changes in the parent text, *Economics*, eleventh edition.

## OVERVIEW OF THE REVISION

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The major revision themes reflected in *Macroeconomics* include the following.

**Internationalization** We have been very aware of the need to internationalize our presentation. Examples, applications, and, more importantly, analysis and policy have all been substantially reconceived to reflect the globalization of the American economy. The ensuing chapter-by-chapter synopsis of specific changes will make clear the extensiveness of our efforts in pursuing this goal. To identify at a glance each section where our coverage has been globalized, we have inserted this symbol  in the Contents.

**Modern topics** As will become clear from our ensuing chapter-by-chapter summary of changes, we have made a special effort to add modern topics to *Macroeconomics*. Examples of such topics include recent eclectic Federal Reserve policy; the differences between the various macro paradigms; “P-star” as a monetary tool; the distinction between short-run and long-run aggregate supply curves; new classical “real” business cycle theory; the international implications and feedback effects of monetary and fiscal policies; the U.S.–Canadian Free-Trade pact; antidumping duties; capital flight from the less developed countries; and the Gorbachev reforms. In short, we have endeavored to make *Macroeconomics* a book for the 1990s.

**Pedagogy** In this revision we have been especially alert for opportunities to improve pedagogy. For example:

All diagrams have been redrawn. A number of new diagrams and tables have been added to make it easier for students to visualize and understand some of the more complicated discussions. Figures 14-3, 16-2, and 17-1 and Tables 17-3 and 19-1 are illustrative.

Many examples have been recast to enhance the interest of today’s teachers and students. For example, long-time adopters will find that bread and drill presses have given way to pizzas and industrial robots in Chapter 2.

We have carefully pruned and consolidated material where it was possible to do so without losing the sense or style of the presentation.

The Last Word minireadings have been relocated to enhance their visibility and use.

End-of-chapter questions have been carefully revised and updated. In particular, we have sought opportunities to add quantitative questions.

**Test Bank I** to accompany *Macroeconomics* has been revitalized with the addition of 860 new multiple-choice questions. Furthermore, in both **Test Bank I** and **Test Bank II** questions are now grouped by topic or concept, are sequenced to match the outline of each chapter, and are designated by type of question (definition, application, graphical, etc.).

The revised *Instructor’s Resource Manual* has been greatly expanded with the inclusion of answers to *all* the text’s end-of-chapter questions.

Chapter 1 contains a new appendix on the construction and interpretation of graphs.

New state-of-the-art computerized materials have been generated for student use.

Other pedagogical improvements permeate the eleventh edition package, as will be noted in the following discussion of the details of the revision.

## THE REVISION PROCESS

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We undertook the most ambitious revision efforts in the book’s history to ensure that it will con-

tinue to meet the needs of the modern principles course.

First, and most importantly, a coauthor has been involved in this new edition, bringing with him an abundance of new ideas relating to content, organization, and pedagogy.

To a significant extent, this revision also represents the results of two detailed questionnaires prepared by the publisher. One was rather broad and intended to survey in general teachers of principles of economics; the other was specifically intended to survey instructors who recently taught from the tenth edition of *Economics*. The general survey produced approximately 500 responses, comprising nearly a one-third response rate, from instructors who indicated what they desired in a principles textbook for the 1990s. The specific survey elicited 75 responses from adopters who indicated their preferences, their priorities in covering various topics, their evaluations of the pedagogical aids, and their specific suggestions, identifying in detail the changes they felt should be made in this new edition.

In addition, this revision also reflects the results of detailed reviews obtained from more than 50 economists—some current users of the text, some not. Many provided complete reviews of the tenth edition; others provided reviews of the manuscript of the entire eleventh edition as it developed; some did both. And a number of reviewers who concentrate their teaching and writing in particular areas—for example, macro theory or international economics—examined our treatment of these specific areas. In a few cases, these specialist reviewers sent us “back to square one” causing us to rework a section or rethink the organization of material and resubmit it to them once again for further assessment. This process continued until the reviewers were satisfied we treated “their” topics properly and sufficiently within the scope of the principles course, and we were satisfied we were treating that material soundly and at a level which a principles student can understand.

Finally, to further assure clarity, a senior editor at McGraw-Hill undertook the task of reading the most heavily revised chapters, examining them in detail from the perspective of an average student, and suggesting changes in both organization and presentation which would make the material easier to read and understand.

We trust that the outcome of this detailed revision

is a text which is clearly superior to its predecessor.

Although the eleventh edition bears only a modest resemblance to the first, the basic purpose remains the same: to introduce the beginning economics student to those principles essential to an understanding of fundamental economic problems and the policy alternatives society may utilize to contend with these problems. It is hoped 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 that of presenting the principles and problems of economics in a straightforward, logical fashion. To this end great stress continues to be put upon clarity of presentation and organization.

## THE REVISION IN DETAIL

What specific changes are embodied in *Macroeconomics*?

**Part I Introduction** *Chapter 1* on methodology has been thoroughly reworked and reorganized. The roles of inductive and deductive reasoning are clarified and treated earlier in the chapter as is the difference between micro- and macroeconomics. The differences between positive and normative economics are made explicit and illustrated. The chapter now ends with a new section on “the economic perspective” wherein the roles of rational behavior and cost-benefit comparisons are introduced. A new Last Word provides a factual profile of the American economy. Finally, as noted earlier, a new appendix on the understanding of graphic analysis has been added.

*Chapter 2* has been tightened by deferring treatment of the “Five Fundamental Questions” to Chapter 5. A new application of the production possibilities curve focuses upon international specialization and our recent trade deficits. A new Last Word discusses the reallocation of resources implicit in the Gorbachev reforms.

Several modest changes are incorporated in *Chapter 3*. For example, a distinction is made between self-interest and selfishness; the definition of a market is made more explicit; and several international examples have been added. The new Last

Word deals with specialization based upon comparative advantage.

In *Chapter 4* on individual markets the discussions of the determinants of demand and supply have been carefully reworked and illustrations have been updated and extended. A new capstone section at the end of the chapter considers the foreign exchange market as a prelude to the internationalization of Parts 2–4. A new Last Word explores the supply and demand for physician services.

*Chapter 5* now begins with an introduction to the Five Fundamental Questions prior to outlining how a competitive market system functions. This chapter's final section on big business has been extensively rewritten.

*Chapter 6* has been substantially condensed in that it now focuses exclusively on the basic economic functions of government. In addition, the graphical analysis of externalities has been recast for greater clarity and the circular flow model has been reconceived to provide a better perception of how government affects the economy. The chapter summary has been reworked and expanded as have the end-of-chapter questions.

In *Chapter 7* the sections on the household and business sectors have been judiciously trimmed to make room for a new section on the international sector. Here we indicate the quantitative importance of world trade, show the relationship of world trade to finance, and point out several of the more salient economic implications of trade.

In *Chapter 8* the material on the personal income tax has been rewritten and shortened to reflect the new tax legislation. The section on the overall tax structure has also been rewritten and the concluding section now stresses two issues: the relationship of the tax structure to reindustrialization and tax changes designed to reduce the Federal budget deficit. The new Last Word discusses state lotteries and the controversy surrounding them.

**Part 2 Macroeconomy** In *Chapter 9* an important new section on measuring the price level has been added prior to the discussion of nominal and real GNP. Other changes include a reworking of the chapter introduction, pedagogical improvements in the value-added table, the addition of exports and imports to the circular flow diagram, and an updating of the discussion of the underground

economy. Finally, the Last Word on the CPI has been revised and updated.

*Chapter 10* features a new table and brief discussion which present international comparisons of unemployment and inflation rates. The section on cost-push inflation has been reworked for greater clarity and to stress the self-limiting character of such inflation. Other changes include: clarifications in the sections on frictional and cyclical unemployment; the addition of specific data on part-time and discouraged workers; and a comparison of disaggregated unemployment rates for the 1982 recession year and the 1988 full employment year. The new Last Word is concerned with the potential impact of changes in stock prices upon the economy.

The purpose of *Chapter 11* has been altered. Rather than an overview of macroeconomics, it is now designed as a springboard for the macro theory which follows. Hence, much of the material in this chapter is new to the eleventh edition. A new opening section stresses the importance of a macro model and the ensuing discussions of aggregate demand and aggregate supply elaborate non-price-level determinants, that is, the factors which shift the aggregate demand and supply curves. Tenth edition material on stabilization policies has been excised and repositioned in later chapters.

The aggregate demand–aggregate supply comparison of classical and Keynesian economics has been revised in *Chapter 12* in the interest of greater clarity and to emphasize that classical economists envisioned that, with a stable money supply, aggregate demand would also be stable. Other changes include the addition of a second panel to the classical interest rate diagram to further demonstrate why a rightward shift of the saving curve allegedly would not result in a surplus of saving. Students are also reminded that a price level change can cause a change in investment through the interest rate effect.

The tenth edition's appendix material on international trade and equilibrium output has been simplified and integrated into the body of *Chapter 13*. The section in which the aggregate demand curve is derived from the Keynesian expenditures model now incorporates discussions of the wealth, interest-rate, and foreign-purchases effects.

*Chapter 14* on fiscal policy contains several notable revisions. Exports and imports are now included in the discussion of discretionary policy and

an entire new section on fiscal policy in an open economy has been introduced. The distinction between cyclical and structural deficits is now included in the full-employment budget material and the discussion of the automatic stabilizers has been restated and condensed. A new Last Word introduces and discusses the newly revised index of leading economic indicators.

**Part 3 Money** Chapters 15, 16, and 17 in this edition appeared as Chapters 17, 18, and 19 in the tenth edition.

In *Chapter 15* the discussion of money market equilibrium has been expanded and clarified by incorporating the relationship between interest rates and bond prices. The tenth edition's Last Word on the Monetary Control Act of 1980 has been dropped, but some of its more important provisions are now presented in the body of the chapter. Finally, the chapter now features a fascinating Last Word on the widespread use of beer as money in Angola.

Instructors will find two visible changes in *Chapter 16*. First, we have added a diagram showing the relationship between an initial new deposit in the banking system and the resulting multiple-deposit expansion of the money supply. Second, there is a new Last Word on bank and thrift failures.

The introductory material in *Chapter 17* has been tightened so that the discussion moves quickly into how the Fed controls the money supply. In this regard, a new diagram has been added to help students better understand open-market operations. In particular, the diagram clarifies the distinction between the Fed's purchase of securities from a commercial bank and from the general public. Discussion of the Keynesian cause-effect chain of monetary policy is deferred to the section on "Monetary policy, equilibrium NNP, and the price level." The presentation of easy and tight money policies included in this section has been improved and Table 17-3 has been added to provide a recapitulation. The section dealing with the shortcomings of monetary policy has been condensed and recent policies are discussed. An important section on the linkages of monetary policy to the international economy has been included. Similarly, net exports have been added to Figure 17-3's summary of Keynesian theory.

**Part 4 Macro Issues** In this eleventh edition *Chapter 18* on monetarism and rational expectations theory (RET) has been regrouped with three other chapters to constitute a unit on problems and controversies in macroeconomics.

*Chapter 18* has undergone a thorough revision which includes a restatement of the monetarist transmission mechanism; the use of aggregate demand–aggregate supply analysis to explain the monetary rule and the Keynesian criticism thereof; and a linking of RET to the general rationality assumptions which underlie economics. The new Last Word introduces the "P-star" equation as a tool of monetary policy.

*Chapter 19* on the inflation-unemployment relationship also embodies fundamental changes. Its new location after the money and banking chapters and the chapter on monetarism and RET allows students to more easily grasp the issues and policies examined therein. In terms of content the introductory discussion of the Phillips Curve has been shortened and the simple graphics of demand-pull and cost-push inflation has been deferred. New material on the decline of inflation during the 1980s has been inserted. The "accelerationist" view of the Phillips Curve is now recast as the natural rate theory and the discussion is rewritten to distinguish between short-run and long-run Phillips Curves. The model is now used to explain disinflation as well as inflation. Material on the new classical distinction between short- and long-run aggregate supply curves is introduced and demand-pull and cost-push inflation are now considered in this context. The model itself is treated as an outgrowth of the natural rate criticisms of Keynesianism. The discussion of policy options for combatting stagflation has been greatly condensed. A new table (Table 19-1) summarizes and contrasts the views of Keynesians, monetarists, rational expectationists, and supply siders. The new classical "real" business cycle theory is the topic of the new Last Word.

Revisions in *Chapter 20* on budget deficits and the public debt include new material on the deficit's relationship to the United States' debtor nation status; a brief discussion of the new classical view of deficits; an updating of the Gramm-Rudman-Hollings law; and a discussion of the line item veto as a means of reducing deficits. The new Last Word presents the provocative view that higher taxes may *increase* the budget deficit.



**Chapter 21** on economic growth is a consolidation of the tenth edition's Chapters 21 and 22. Much of the material on growth theory has been omitted and the treatment of the growth controversy has been greatly condensed. The discussion of the productivity slowdown has been revised and centers upon new data (Table 21-4). A new Last Word explores the possibility that our poor productivity performance in recent years is attributable largely to inadequate public investment in the economy's infrastructure.

**Part 5 World economy** **Chapter 22** on comparative advantage and protectionism includes the following changes: a section on the antidumping argument for protection has been added; the agenda of the Uruguay Round of GATT negotiations is presented; the U.S.-Canadian free-trade agreement is discussed; the relationship between U.S. trade deficits and protectionist pressures is analyzed; and new data on the costs of protection are included.

**Chapter 23** on exchange rates and the balance of payments now includes a thorough discussion of the causes, consequences, and solutions to the U.S. trade imbalance. The chapter ends with a new Last Word on how the rise in the value of the yen has affected the dollar prices of goods and services in Tokyo.

In **Chapter 24** on the less developed countries the descriptive material which introduces the chapter has been condensed; a more diverse classification of nations is presented; the discussions of unemployment and labor productivity have been reworked; the "capital flight" problem is introduced; the treatment of the role of government in development has been extended and reconceived for a more balanced presentation; and the section on the LDC debt crisis has been entirely rewritten and augmented with a new diagram and table.

**Chapter 25** on the Soviet economy has also been subjected to a major overhaul. The material on the Soviet economic performance has been reworked and a new table (Table 25-1) compares U.S. and U.S.S.R. growth records. More importantly, an extended discussion of the Gorbachev reforms is now included. The new Last Word provides interesting insights as to what *perestroika* means for a Soviet tractor factory.

**"Last word" minireadings** Both surveys indicate that many instructors have appreciated the "Last

Word" minireadings which appear toward the conclusion of each chapter. These selections serve several purposes: some provide meaningful real-word applications of economic concepts; others reveal "human interest" aspects of economic problems; and still others extend or challenge the concepts and interpretations of mainstream economics. Sixteen of the twenty-five Last Words are new to *Macroeconomics*; a number of others have been extensively revised and updated.

## ORGANIZATION AND CONTENT

In terms of organization, this book has been written with the conviction that the basic prerequisite of an understandable economics text is the logical arrangement and clear exposition of subject matter. This concern with organization is perhaps most evident in Part 1, which centers upon the step-by-step development of a comprehensive and realistic picture of American capitalism. This coherent group of introductory chapters is substituted for the traditional smattering of more or less unrelated background topics that frequently introduce the student to the study of economics.

Throughout this volume 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. It is for this reason that employment theory and monetary analysis are purposely accorded comprehensive and careful treatments. Simplicity in these instances is correlated with comprehensiveness, not brevity. Furthermore, our experience suggests that in the treatment of each basic topic—employment theory, money and banking, international economics, and so forth—it is highly desirable to couple analysis and policy. A three-step development of basic analytical tools is employed: (1) verbal description and illustration, (2) numerical examples, and (3) graphic presentation based upon these numerical illustrations.

The contents of *Macroeconomics* are organized around five major topics: (1) an introduction to economics and the American economy; (2) macro theory and fiscal policy; (3) money and monetary policy; (4) macro problems and issues; and (5) international economics and the world economy.

Part I is designed to introduce the method and subject matter of economics and to develop the ide-

ological framework and the factual characteristics of American capitalism. This group of chapters develops in an orderly fashion the overall picture of how our economy operates. After an introduction to the methodology of economics in Chapter 1, an entire chapter is devoted to defining and explaining the economizing problem. Chapters 3 to 5 develop the capitalistic ideology and the notion of the most fundamental institution of capitalism—the market system. Early emphasis upon the market system is designed to provide the student with an understanding of product and resource prices and to contribute to an understanding of macroeconomics in Part 2 and, more specifically, the topics of inflation and deflation. Chapter 6 introduces government as a basic economic component of modern capitalism; this short chapter stresses the redistributive, allocative, and stabilization functions of government. Upon this superstructure of a mixed public-private economy, Chapters 7 and 8 add the factual information concerning the private and public sectors of the economy, thereby making our mixed capitalism model much more realistic. However, instructors who wish to minimize institutional-descriptive material may choose to omit Chapters 7 and 8. Those instructors who are especially anxious to embroil their students in macro theory and policy may choose to assign only Chapters 2, 3, and 4 from Part 1.

Part 2 treats macro theory and fiscal policy. Chapter 9 embodies systematic discussions of the national income accounts; measurement of the price level; and the use of price indices to adjust nominal GNP. Some instructors may choose to truncate this discussion by omitting or deemphasizing the income approach to GNP which is less relevant to the ensuing theory chapters than is the expenditures approach. Chapter 10 treats the characteristics, causes, and consequences of cyclical fluctuations. Chapter 11 introduces the aggregate demand–aggregate supply model and the next three chapters are devoted to classical and neo-Keynesian employment theory and fiscal policy.

Part 3 emphasizes the balance sheet approach to money and banking. This approach seems most in accord with the goal of providing the student with an analytical tool needed in reasoning through, as opposed to memorizing, the economic impact of the various basic banking transactions. Just as fiscal policy is linked directly to income the-

ory in Part 2, monetary policy immediately follows the discussion of money and banking.

Part 4 consists of four chapters on current macroeconomic problems and controversies. In Chapter 18 monetarism and rational expectations theory are presented and compared with Keynesianism. Chapter 19 focuses upon how the various macro paradigms view the problem of simultaneous inflation and unemployment. The issues surrounding large budget deficits and the public debt are explored in Chapter 20. Finally, Chapter 21 deals with economic growth and the problems and controversies related thereto.

Part 5 deals with international economics and the world economy. Although a number of topics explored in Chapters 22 and 23 have been introduced earlier—for example, specialization, exchange rates, and international trade deficits and surpluses—we feel it important to survey international trade and finance systematically and with some rigor. Chapter 24 presents an overview of the problems and prospects of the less developed countries. Finally, Chapter 25 offers a fairly comprehensive discussion of the Soviet economy with emphasis upon the Gorbachev reforms.

#### STUDENT FRIENDLY: STUDY AIDS

*Macroeconomics* is highly student oriented.


1 Students who are comfortable with graphic analysis and a few related quantitative concepts are in an advantageous position to understand principles of economics. With this in mind a new 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 Given that a significant portion of any introductory course is devoted to terminology, terms are accorded 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 a comprehensive glossary of some 690 entries is

found. This glossary also is contained in the *Study Guide* which accompanies *Macroeconomics*.

4 We have taken great care to write the legends which accompany all diagrams in such a way that they are self-contained analyses of the relevant concepts depicted therein. We feel this is a strategic means of reinforcing student comprehension.

5 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. We have made a special effort to provide more quantitative questions on the assumption that active student involvement is critical to understanding. 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*. Many of the end-of-chapter questions deal with subject matter that is reinforced by the excellent computerized tutorial accompanying the text. A “Floppy-disk” symbol (  ) appears in conjunction with questions whose content correlates to the tutorial program.

6 In addition to its considerable aesthetic merit, the multicolor format of *Macroeconomics* stresses the use of color to enable students more quickly and easily to “get the picture”; that is, to perceive the ideas expressed in each diagram and chart.

#### INSTRUCTOR FRIENDLY: THE SUPPLEMENTS

*Macroeconomics* is accompanied by a myriad of supplements which we feel equals or surpasses 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 chap-

ter 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*. 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 on macroeconomics.

**Instructor's resource manual** Professors Joyce Gleason and W. H. Pope, working in conjunction with William Walstad, has assumed primary responsibility for revising and updating the *Instructor's Resource Manual*. It comprises chapter summaries, teaching tips and suggestions, learning objectives, chapter outlines, data and visual aid sources with suggestions for classroom use, and problems. As noted, answers to all the text's end-of-chapter questions are also found in the *Manual*. We trust instructors will find this *Manual* to be useful and timesaving.

New to 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-PC's and compatibles is available in both 5¼-inch and 3½-inch formats. Users of *Macroeconomics* can now 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.

**Dual test banks** *Macroeconomics* is supplemented by two test banks of objective, predominantly multiple-choice, questions. *Test Bank I* now comprises some 3600 questions, all written by the text authors; approximately 2750 are carried over from the previous edition and 860 have been prepared by the authors for the new edition. *Test Bank II*, revised by Professor Walstad, contains approximately 3100 questions. For all test items in both 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. Adopters of *Macroeconomics* will be able to use this sizable number of questions, organized into two parallel test banks of equal quality, with maximum flexibility. We believe that 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.

**Computerized testing** Both test banks are available in a variety of computerized versions. One version, the MICROEXAMINER system, is among the simplest and most user-friendly test-generation systems available. It is provided for IBM-PC computers and compatibles, the Apple II Family of personal computers, and MacIntosh computers.

Another version, the DIPLOMA system, from Brownstone Research Group, provides considerable flexibility and options to users, particularly for instructors who wish to modify existing questions or combine their own questions with those provided with the text. It is available for IBM-PC's and compatibles. Additional items available from Brownstone include the popular GRADEBOOK classroom management software and a unique self-testing program, PROCTOR, for testing individual students.

Finally, MACROTEST II from Chariot software will be available to support MacIntosh computers.


All these systems feature the ability to generate multiple tests, with versions "scrambled" to be distinctive, and 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 upon request to adopters.

**Student software** For users of IBM-PC's and compatibles, the new student software package prepared by Professor William Gunther of the University of Alabama provides a full range of carefully prepared computer applications. Twenty core topics in the principles course receive full tutorial pro-

grams, with graphics-based coverage in all appropriate areas.

In addition, students can quiz themselves with a self-testing program accompanying each text chapter. The package also features six simulation games, three in macroeconomics and three in microeconomics. Unlike other simulation packages, some of these six games only assume that students have learned part of the material in the course. In this way, they can be used prior to the hectic final weeks of a term. Two of the simulations, one each in macroeconomics and microeconomics, involve a global economy in keeping with the globalization of the course and this text.

As indicated, end-of-chapter questions throughout the text that relate to the content of one of the tutorial programs are highlighted by a floppy disk symbol (  ).

For users of MacIntosh computers, there is an exciting new tutorial program, *VizEcon*. Developed by Professor William A. Phillips of the University of Southern Maine, 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 key features of this program. Its development was underwritten by grant funds and consultation from Apple Computer Inc.

**Videos** New to *Macroeconomics* are videotapes on topics of interest to economics students. Your local McGraw-Hill representative can provide details on these videos.

**Economic issues** Finally, let us note that *Economic Issues: A Book of Readings* remains available for use with this or any other mainstream text.

## DEBTS

*Macroeconomics* embodies the many suggestions and criticisms which instructors have kindly made available over the years. More specifically, this revision has benefited from a large number of perceptive reviews. These contributors, to whom we are especially grateful, are listed at the conclusion of this preface.

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, and Norris Peterson who have been most helpful in offsetting comparative ignorance in their areas of specialty. Merlin Erickson has rendered considerable assistance in locating data. Professor W. H. Pope of Ryerson Polytechnical Institute in his role as coauthor of the Canadian edition of *Economics* has provided both general guidance and innumerable suggestions for improvement. He has also been responsible for the revision of *Economic Concepts* and, along with Professor Mark Lovewell, undertook the arduous task of providing suggested answers to all of the nonquantitative end-of-chapter questions which appear in the *Instructor's Resource Manual*. Thanks also go to Professor Ernest Ankrum of Pacific Lutheran University who coded each test bank item by type of question and identified the corresponding text page number.

We are greatly indebted to the many professionals at McGraw-Hill—and in particular Scott Stratford, Mel Haber, Sal Gonzales, and Clay Stone—for their expertise in the production and

distribution of the book. Binns & Lubin has given the book another of their unique designs. Our greatest debts are to Edwin Hanson and Mike Elia for their direct supervision of this revision. Their patience and many positive contributions are gratefully acknowledged.

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

**Campbell R. McConnell**

**Stanley L. Brue**

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#### **A NOTE FROM THE SENIOR AUTHOR**

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As I have mentioned earlier in this Preface, Stan Brue joins this edition as my new coauthor. This edition has benefited enormously from the expertise, energy, and meticulous care he has brought to the project. Our ongoing collaboration is a highly satisfying relationship for me.

C. R. M.

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