Edward Shapiro

Macroeconomic Analysis

Fifth Edition

Harcourt Brace Jovanovich International Edition

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To the memory of my father

Cover art by Al Held, *Inversion VIII,* 1977, from the collection of Paul and Camille Oliver Hoffmann, courtesy André Emmerich Gallery, Inc.

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Preface

Professors who have used *Macroeconomic Analysis* in previous editions may require a second glance to recognize this latest incarnation. Several major and countless smaller changes have been made. However, one feature that remains unchanged is the book's objective of providing a treatment of macroeconomic measurement, theory, and policy designed specifically for students whose economics background is limited to the customary year of introductory survey work. Furthermore, it is not assumed that students have thoroughly absorbed all the macroeconomics to which they were exposed in their survey work. Many textbooks devote one chapter to reviewing this basic material; this text continues to give basic macroeconomics a more lengthy treatment (Chapters 4–7).

Also, unlike many others, this text does not require that students bridge the huge gap between elementary and graduate level macroeconomics in the one-quarter or one-semester course usually devoted to the subject. The theoretical analysis is sufficiently rigorous to provide students with a solid grasp of the generally recognized fundamentals of macroeconomic analysis, but it is not so advanced that the student is likely to become lost in a sea of unfathomable abstractions.

As in preceding editions, the material is presented essentially in nonalgebraic form. It has been argued that there are no important ideas in economics that cannot be explained in carefully written English. Written explanations supplemented by diagrams remain the basic tool employed in this book. The effectiveness of the diagrams has been enhanced in this edition through the use of color. The contrast provided by color obviously becomes especially beneficial in complicated diagrams that require the student to grasp the relationships among three or more curves.

Organizational Changes

Instructors will probably agree that the details on consumption and investment—for example, the various consumption hypotheses and the various theories of investment—are more appropriately covered (if they are covered at all) after the development of the *IS–LM* model. Accordingly, the three chapters devoted to the development of the *IS–LM* model have been moved forward to permit an unbroken flow as the analysis proceeds from the simplest Keynesian model in Chapters 4–7 through some prerequisite material in Chapters 8–11 to the *IS–LM* model in Chapters 12–14. This reorganization has beneficial side effects. For example, we can now consider issues in investment theory which were precluded in preceding editions by the fact that investment theory was discussed before the *IS–LM* model was in place.

Another organizational change is the postponement of the integration of aggregate supply and aggregate demand *as functions of the price level* into the analysis until the *IS–LM* framework has been developed. In the previous edition, this was done as soon as the simple Keynesian model had been constructed. It was believed that this innovation would promote student understanding; however, it does not appear to have had that salutary effect. Therefore, this edition returns to the customary procedure.

Also of an organizational nature is the addition of introductory overviews to each chapter. These identify the subject matter of each chapter and describe how the chapter has been structured to develop it. If students can discern the route that will be followed from the beginning to the end of a chapter, they are likely to better understand the ideas encountered along the way.

Substantive Changes

Three new chapters have been added to the Fifth Edition. The previous edition gave only passing mention to the process by which the money supply grows and the tools with which the Federal Reserve controls this growth. This edition's new Chapter 10 is devoted entirely to the money supply process and its control. The previous edition gave considerable attention to inflation, but probably less than this overwhelming problem warrants. Chapter 21, "Inflation: Definitions, Measures, and Effects," has been so extensively rewritten and expanded as to almost qualify as a new chapter. This edition extends the coverage from two to three chapters (21–23) by adding a new chapter (23) on "Inflation and Unemployment." The previous edition touched lightly on incomes policy; this edition devotes all of a new Chapter 24 to it. A large part of this chapter is concerned with tax-based incomes policy (TIP), which is of keen interest to those who believe that inflation can best be controlled through a judicious incomes policy. (To make room for these new chapters as well as the expansion of others, the preceding edition's chapter on "Business Cycle Theory" and the long appendix on "National Income Accounting" were dropped.)

Numerous additions of less-than-chapter length were also made. In Chapter 1, the historical record of aggregate output, employment, and inflation is integrated with a discussion of the development of macroeconomic theory from the pre-Keynesian (or old classical) theory to the new classical theory of the rational expectationists. In Chapter 15, the life-cycle hypothesis has been included so that the chapter now presents all four consumption hypotheses. In Chapter 18, a section on the derivation and implications of the upward-sloping *IS* curve has been added. Chapter 20 now provides a diagrammatic model of the popular "supply-side" economics embraced by the Reagan administration. Chapter 21 includes a section on the different measures of inflation, an examination of the case against the use of the Consumer Price Index for indexation, and a section on "who wins" and "who loses" from inflation. Chapter 22 now offers an analysis of supply-shock inflation and an explanation of how supply management might use fiscal policy to combat various kinds of supply-side inflation. In examining the issue of whether the money supply or interest rates serve as the better guide to monetary policy, Chapter 26 now employs the *IS–LM* framework to show that the answer varies with different sets of conditions. Chapter 26 also includes a section on Federal funds targeting versus reserve targeting to control the monetary aggregates. Dozens of other additions of shorter length appear throughout the book.

Suggestions for a "Short Course"

More material has been added for this edition than has been deleted. This results in a text that contains more material than can be covered in the usual one-semester or one-quarter course. However, as stated in the preceding edition, because not all instructors assign the same importance to various topics, a longer book from which individual instructors may omit less important topics seems more useful than a shorter book that denies any such choice. The reorganized chapter sequence now allows considerable flexibility in omitting chapters or sections of chapters without producing significant breaks in continuity.

Although most instructors will probably find Chapter 1 useful for its discussion of the evolution of modern macroeconomic theory, the historical record of national output, unemployment, and inflation, it can be omitted. Chapter 2 offers a minimum introduction to national income accounting and is definitely needed for the subsequent work in theory. However, the sections of this chapter that consider special problems in national income accounting (imputations, inventory valuation adjustment, and capital consumption adjustment) as well as the final section on the relationship between national product and national welfare may be dropped. Chapter

3, "Basic Concepts," may be omitted, or perhaps assigned for self-study as it is a fairly easy chapter.

Part 2, Chapters 4–7, develops the simple Keynesian model. The material here is, of course, part of the foundation for the *IS* curve and is therefore essential. However, it is also basically an elaboration (including an algebraic formulation) of introductory course material. Those instructors who choose to exclude the international sector from their course will omit Chapter 7, "Foreign Spending," and Chapter 14, "The Extended Model: Foreign Sector Included," which combines the *BP* (balance of payments) curve with the *IS* and *LM* curves. (Chapter 7 may be included with Chapter 14 excluded, but not vice versa.)

In Part 3, Chapter 8, "The Aggregate Supply Function: Keynesian and Classical," is essential to an understanding of the *IS–LM* model developed in Chapters 12–14. Those who do not wish to work through "The Simple Classical Model" in the detail provided by Chapter 9 may limit their attention to pages 148–55 and 163–69, which are essential to an understanding of Chapter 11 (in which the development of the Keynesian theory of the demand for money assumes that the reader is familiar with the simple quantity theory of money) and Chapter 13 (in which the "classical aggregate demand curve" plays a role). Although Chapter 10, "The Money Supply Process," covers an important subject area, the last two sections of the chapter—"Deposit Expansion and Contraction: Three Complications" and "Treasury Financing and the Money Supply" may be excluded. Chapter 11, "The Supply of and Demand for Money and the Rate of Interest," is a prerequisite to the following three chapters; however, the last section, "The Demand for Money from Simple Quantity Theory to Modern Quantity Theory," may be dropped without causing later difficulties.

If there is not enough time to work through all of the *IS–LM* material in Chapters 12–14, a large portion of Chapter 13 (pages 266–77) may be omitted; this section covers the classical theory's argument that wage and price deflation will eliminate unemployment, Keynes' attack on this argument, and the Pigovian reply. Despite this omission, the last section of the chapter—"Monetary and Fiscal Policies and the Full Employment Equilibrium"—is still manageable, particularly if the instructor briefly explains how deflation shifts the *IS* curve rightward. If these pages of Chapter 13 are omitted, the only material in the following chapters that must also be omitted is the section in Chapter 14—"Wage-Price Flexibility and Full Employment"—that extends the analysis of wage-price deflation to an economy including an international sector.

Instructors who choose to exclude all or part of the body of Chapter 14 may still want to include the "Concluding Note," part of which offers a fourteen-part diagrammatic summary of the theory developed through the preceding chapters. Because this graphic system incorporates the foreign sector, it cannot be followed in its entirety without an understanding of Chapter 14. However, by ignoring Parts J, K, and L and the *BP* curve of Part D, the balance of the system should still be meaningful.

For Parts 4 and 5, Chapters 15–26, there is almost complete flexibility. If time is short, one may go directly from the *IS–LM* analysis of Chapters 12–14 to the discussions of inflation in Chapters 21–23. However, for those who want to devote some time to consumption and investment, the following notes will be of interest.

One may cover all four of Chapter 15's consumption hypotheses or any one alone may be studied by simply omitting the material under the headings of the other three. Anyone who may want to cover the nonincome influences on consumption but to omit the income influences is free to exclude Chapter 15 and include Chapter 16 (except for item 3, pages 357–59). The way that investment theory is developed in Chapters 18 and 19 makes Chapter 17 a prerequisite. In Chapter 18, the second section on the accelerator theory may be covered without the first section on the profits theory. Similarly, the second section of Chapter 19 may be covered without the first part of that chapter. Also, Chapter 19 may be considered in whole or in part without working through Chapter 18.

In Part 5, Chapter 20 is not a prerequisite to any of the material in the remaining six chapters. However, the accelerator theory section of Chapter 18 is a prerequisite to the Harrod–Domar growth theory section of Chapter 20. One may work through Chapter 20's presentation of the popular "supply-side" model of growth, yet omit the earlier sections of this chapter (although some neo-classical growth theory is included in the supply-side model). In view of the current importance of inflation, many instructors may choose to cover all three chapters devoted to this subject. However, it is not essential to work through all of Chapter 21 before moving on to Chapters 22 and 23, although the brief first section on definition seems essential. One may turn to the final section of Chapter 21 on the effects of inflation without first covering the second section on the measures of inflation. It is possible to move directly from Chapter 21 to Chapter 23 with only a moderate break in continuity, but the omission of Chapter 22 will leave untouched some basic concepts and ideas concerning inflation. Chapter 22 examines the causes of inflation within the familiar framework of aggregate supply and aggregate demand. Anyone who so chooses may skip the third section—"Supply-Side Inflation: The Problem of Control"—and still cover the final section—"Supply-Side Inflation: Its Relation to Demand-Side Inflation"—without encountering any discontinuity. Chapter 23 extends the analysis of inflation beyond the conventional aggregate supply and demand curves. The rate of inflation replaces the price level; the rate of unemployment replaces the output level. In Chapter 23, the first two major sections—"The Elements of the Model" and "The Phillips Curve: Tradeoff and Non-Tradeoff"—must be worked through in their entirety. Although the third major section takes up four of the most interesting topics in inflation, any or all of these may be omitted.

Instructors who want to concentrate the time available for policy on fiscal and monetary policy may omit Chapter 24, "Incomes Policy." Those who wish to give some attention to incomes policy but less than is provided by Chapter 24 may omit without discontinuity the section that surveys U.S. experience with incomes policy over the last twenty years. Finally, anyone who wants to cover only monetary policy (Chapter 26) may skip Chapter 25 (fiscal policy). Both Chapter 25 and Chapter 26 are divided into three major sections which, to a large degree, are independent.

Although these notes reveal what can be omitted from the book as written, they do nothing for the instructor who finds that material he or she believes should be included has been omitted. An author's choices are almost unlimited. I can only hope that what I have included provides a well-balanced coverage of what most instructors believe is appropriate for a course at this level.

I also hope that the Fifth Edition of *Macroeconomic Analysis* contains fewer of the ambiguities and inconsistencies that seem to occur in even the most carefully written text. Over the fifteen years since this book first appeared, many teachers and students have been kind enough to point out such difficulties. I am indebted to all of them, particularly to those who pointed out such difficulties in the Fourth Edition. I would also like to acknowledge the suggestions of Professors James M. Rock, University of Utah, and Robert Renshaw, Northern Illinois University. I also want to thank Jack Thomas of Harcourt Brace Jovanovich for an efficient, thorough editing of this Fifth Edition.

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