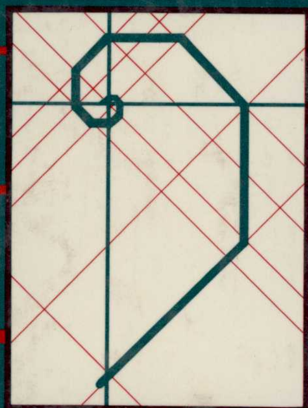
MACRO-ECONOMICS

LAURENCE S. SEIDMAN



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To The Instructor

As macroeconomists who enjoy our subject, we would like to be able to cover virtually every topic presented in a standard text. But few of us can do so in a one-semester course. That reality leads to one of two responses.

Some instructors follow the chapters of a standard text in sequence, but inevitably they have to omit the last few chapters. Such important topics as capital accumulation and economic growth or open-economy macroeconomics are simply not covered. Even inflation and unemployment are sometimes treated hurriedly at the end of the course.

Other instructors elect to skip whole chapters or large sections of chapters in order to cover all the essential topics. Because the standard text is written to be read in sequence, however, students and instructors may be plagued by references to earlier material they have not covered.

Core and Supplement

One purpose of this book is to address such problems. The strategy has been to divide the material into two categories: Core (Chapters 1–11) and Supplement (Chapters 12–16). The eleven Core chapters can be completed in one semester. The Core consists of the following:

Part 1 Aggregate Demand and Aggregate Supply
- Chapter 1 National Income Accounting and Equilibrium Output
- Chapter 2 *IS–LM* Analysis
- Chapter 3 Aggregate Demand and Aggregate Supply

Part 2 Inflation and Unemployment
- Chapter 4 The Inflationary Process
- Chapter 5 Inflation: History, Prevention, and Consequences
- Chapter 6 Disinflation and Transitional Recession
- Chapter 7 Unemployment

Part 3 Stabilization
Chapter 8 Stabilization Policy
Chapter 9 Fiscal and Monetary Policy
Part 4 Accumulation and Growth, and the Open Economy
Chapter 10 Capital Accumulation and Economic Growth
Chapter 11 Macroeconomics in an Open Economy

An instructor can assign the eleven Core chapters knowing that all the essential topics of macroeconomics will be examined in sequence.

The five Supplement chapters are designed to serve the diverse priorities of individual instructors while avoiding the problem of addressing subjects out of sequence. At the beginning of each Supplement chapter, the prerequisite (Pr) Core chapter or chapters are indicated. Most instructors should find time to cover one or two Supplement chapters during a one-semester course. The Supplement consists of the following:

Chapter 12 Consumption and Investment (Pr: Ch. 2)
Chapter 13 Money, Banking, and the Federal Reserve System (Pr: Ch. 2)
Chapter 14 Unemployment and Vacancies (Pr: Chs. 4–7)
Chapter 15 Topics in Accumulation and Growth I (Pr: Ch. 10)
Chapter 16 Topics in Accumulation and Growth II (Pr: Ch. 10)

For example, the prerequisite for Chapter 13, on money, banking, and the Federal Reserve system, is Core Chapter 2, on *IS–LM* analysis. The instructor who wants a detailed treatment of money creation can assign Chapter 13 at any time after the completion of Chapter 2. Or, the instructor whose students have already taken a money and banking course, or who places a higher priority on other topics, can omit Chapter 13, knowing that the essential facts about monetary institutions and policy are covered in Core Chapters 2, 8, and 9.

The Supplement strategy is carried one step further in Chapters 15 and 16 ("Topics in Accumulation and Growth" I and II). In these chapters, each of the eight topics is completely self-contained. Once the prerequisite (Chapter 10, "Capital Accumulation and Economic Growth") has been met, the instructor can assign one or more topics from Chapters 15 and 16. The instructor who gives very high priority to accumulation and growth can assign Chapters 10, 15, and 16.

Although this Core–Supplement division offers new options for the instructor, the standard options remain available as well. It is possible to substitute Supplement chapters for late Core chapters. The instructor who prefers to concentrate on inflation and unemployment and on stabilization can substitute Supplement Chapters 12, 13, and 14 for Core Chapters 10 and 11.

The *DG – SG* Diagram

This book moves the analysis of inflation and unemployment to a central position in the course (Chapters 4–7), and makes the demand growth–supply growth *(DG – SG)* diagram a key tool. The *DG – SG* diagram is a modification of the demand–supply diagram; the vertical axis of the *DG – SG* diagram plots the inflation rate instead of the price level.

A simple rule for shifting the demand growth and supply growth curves is derived so that the student will feel as comfortable with this tool as with the *IS – LM* diagram. The student learns how to use this simple rule to trace out the inflationary spiral path (Chapter 4, Figure 4.4), and the disinflationary spiral path (Chapter 6, Figure 6.1). Thus the *DG – SG* diagram, like the *IS – LM* and *D – S* diagrams, becomes a practical tool that the student can master and use.

The Option of a Deeper Treatment of Accumulation and Growth

Much of the current economic debate centers on policies to promote saving and investment—tax policy, budget policy, and "supply-side economics." Several of these topics are first introduced in Core Chapter 2 as an application of *IS – LM* analysis. All of them are treated in Core Chapter 10, on capital accumulation and economic growth, which emphasizes the analysis of policies.

In addition, Supplement Chapters 15 and 16 include eight self-contained topics on accumulation and growth: government deficits and debt; supply-side economics; Social Security and capital accumulation; policies to reduce consumption; policies to raise investment; the sources of economic growth; the neoclassical growth model; and accumulation, pollution, and depletion. The instructor can therefore assign only Chapter 10, Chapter 10 plus several of the self-contained topics in Chapters 15 and 16, or Chapter 10 and Chapters 15 and 16 in their entirety.

Numerical Examples That Correspond to Diagrams

Equilibrium output, *IS – LM* analysis, and aggregate demand and supply are taught through the presentation of simple equations and numerical examples that correspond to diagrams. The text focuses on numerical examples; the use of general form equations and formal derivations is reserved for the appendix.

A single numerical example unifies Part 1. To illustrate, in Chapter 2 the student is shown how to calculate the new values of consumption and investment when there is a shift to an easy fiscal–tight monetary policy mix. In the example, the student learns how to compute that investment falls from \$380 billion to \$204 billion, and that consumption increases from \$1,520 billion to \$1,696 billion. At the end of Chapter 3, the student learns how to solve the demand equation and supply equation for the price level and output, to use the *IS* or *LM* equation to find the interest rate, and to use the consumption and investment functions to find consumption and investment.

Early Introduction of Important Policy Issues

Student motivation can be stimulated by early exposure to important policy problems. A deep treatment must wait until model development is complete, but a meaningful introduction can come earlier than is sometimes realized.

With student motivation in mind, only essential national income accounting is presented in Chapter 1 (a more comprehensive treatment is found in Appendix 1A). Thus, in Chapter 1 the model of equilibrium output is presented, and the role of the tax system as an automatic stabilizer and the consequences of alternative balanced budget rules for economic stability are introduced.

In Chapter 2, a variety of policy topics is discussed: monetary policy to combat recession, why effective stabilization policy is difficult, the significance of the fiscal–monetary policy mix (and the budget deficit) at full-employment output for accumulation and growth, and supply-side economics. In Chapter 3, the key role of the hypothesis of price expectations (inertial vs. rational) for the behavior of the demand–supply model is reviewed.

Emphasis on Problems and Policy Analysis

With the demand–supply model completed in Part 1, the remainder of the Core gives high priority to the analysis of problems and policy options: inflation and unemployment (Chapters 4–7), stabilization (Chapters 8–9), capital accumulation and economic growth (Chapter 10), and open economy macroeconomics (Chapter 11).

The objective is to devote a large amount of course time to the analysis of problems and policy options. For example, Chapter 4 uses the *DG–SG* diagram to show how inflation arises, Chapter 5 focuses on how to prevent inflation, Chapter 6 considers policy options for disinflating and the role of inertial vs. rational expectations in determining the disinflation path, Chapter 7 reviews supply-oriented policies to reduce the normal unemployment rate, Chapter 8 discusses why effective stabilization policy is difficult, Chapter 9 examines the design of fiscal and monetary policy, Chapter 10 analyzes policies to raise the saving and investment rate of the economy, and Chapter 11 explains why policies that raise the saving rate should reduce the trade deficit.

Other Features

Several other features should be noted:

1. In Chapter 6, the student is shown how econometric technique can be used to estimate the responsiveness of inflation to unemployment. This section gives the student a better grasp of the empirical aspect of macroeconomics.
2. In Chapter 8, on stabilization, numerical examples from the model of equilibrium output are used to compare counter-cyclical and constant policy under uncertainty.
3. The design and impact of alternative balanced budget rules are discussed in Chapter 9.
4. In Chapter 3, diagrams show the interaction of $D-S$ and $IS-LM$ under inertial and rational expectations in response to a fiscal policy expansion and a monetary policy expansion.
5. While Core Chapter 7 on unemployment presents the essential facts, concepts, and policy options, Supplement Chapter 14 presents a labor market model that generates equilibrium employment, unemployment, and vacancies and that can be used to analyze the impact of supply-oriented policies on the normal unemployment rate.
6. The appendix to Chapter 6 gives an exposition of the $DG-SG$ model using simple algebra and numerical examples, for the instructor who prefers a more quantitative approach to inflation–output dynamics. Still greater depth can be achieved by adding Chapter 14, which presents a labor market model using simple algebra.

Instructor's Manual and Study Guide

The author of this text is the sole author of the accompanying Instructor's Manual and a joint author, with Professor Jeffrey Miller of the University of Delaware, of the Study Guide. Both items are therefore fully integrated with the text.

A useful feature of the Instructor's Manual is the provision of complete exams: a first exam on Part 1, a second exam on Parts 2 and 3, and a final exam covering all Core chapters. Each exam is presented twice using two different formats: multiple choice questions and problems.

The answers are worked out in full for the instructor's convenience. Different exams for three semesters are provided. The author of the text has used these exams to test the text material.

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To The Student

The Introduction describes what macroeconomics is about. Here, one suggestion is offered on how to approach this text and subject.

As you read, always have paper, pencil, and calculator available. Draw each diagram, write each equation, and work each calculation. In short, be an active reader who "scribbles." Experience shows that passive readers—those who read but never scribble—often think that they are following the material. But when they then try to draw a diagram, write an equation, or perform a calculation on that first exam, they often receive a sobering surprise.

The text itself should be regarded as a kind of workbook that stimulates writing, calculating, drawing, and scribbling. Terms, concepts, and questions at the end of each chapter provide a useful test of comprehension. As enjoyable as macroeconomics is, it is not a subject for the couch or easy chair. It is a subject for the desk and a hard chair. Be an active reader of this macroeconomics text. You'll master it better and enjoy it more.

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INTRODUCTION

Macroeconomics is concerned with inflation and unemployment, recession and recovery, economic stability and instability, economic growth and capital accumulation, productivity and the standard of living, the national economy and the world economy. Macroeconomics is also concerned with the policies that influence these phenomena: monetary and fiscal policy to maintain stability and to prevent inflation, or to achieve disinflation; supply-oriented policy to reduce the normal unemployment rate, to raise normal output, or to assist disinflation; tax policy to promote capital accumulation and productivity; exchange-rate policy to promote adjustment to the world economy.

Perhaps the best way to explain what macroeconomics is all about is to take a brief excursion through this text. We will pause only long enough to raise questions. The aim of this excursion is to whet — not to satisfy — your appetite.

An Excursion Through Macroeconomics

The three chapters in Part 1 lay the foundation and provide the necessary tools for our study of macroeconomics. Is this a time for patience, when only the promise of a future "return" must motivate you? Not at all. Even in Part 1, you will acquire useful economic tools and principles, confront important policy issues, and encounter valuable economic lessons. Let's consider a few.

Although paying taxes is a personally unpleasant task, you will learn that the tax system is an *automatic stabilizer* in that it reduces the magnitude of fluctuations in output and employment. You will also see how, in principle, it is possible for monetary and/or fiscal policy to combat a recession — although, in practice, a successful stabilization policy is difficult to achieve.

How fast will the standard of living advance over time? The answer depends partly on how much output is devoted to investment instead of consumption. You will see why the mix of monetary and fiscal policy at