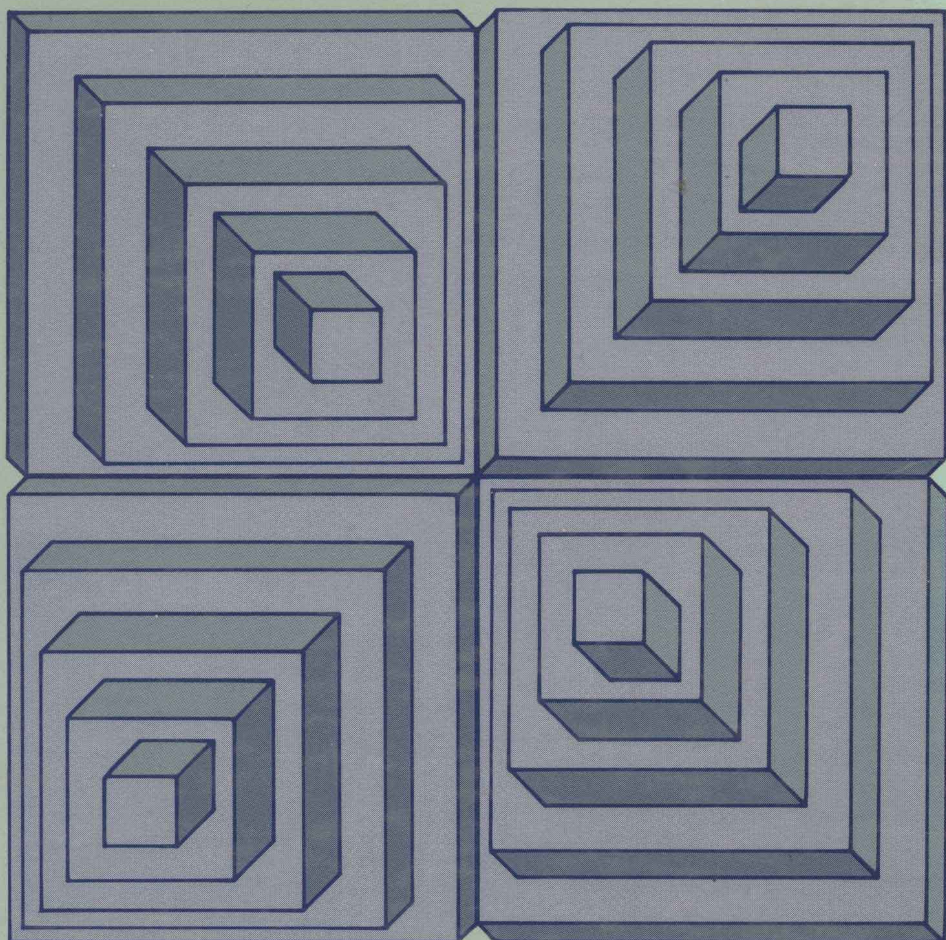
SECOND EDITION

MACROECONOMICS FOR MANAGEMENT



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MACROECONOMICS FOR MANAGEMENT

Second Edition

Prentice-Hall, Englewood Cliffs, New Jersey 07632

Library of Congress Cataloging-in-Publication Data

HATTEN, MARY LOUISE.
Macroeconomics for management.

Bibliography: p.
Includes index.
1. Macroeconomics. 2. Managerial economics.
I. Title.
HB172.5.H37 1986 339'.024658 85-19104
ISBN 0-13-542432-1

Editorial/production supervision and interior design: Pamela Wilder
Cover design: Lundgren Graphics, Ltd.
Manufacturing buyer: Ed O'Dougherty

To *Ken Hatten*, who loves and understands me,
And to *Meredith*, *Sydney*, and *Toby*,
Very special bonuses along the way,
Even through the revision.

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

ISBN 0-13-542432-1 01

Prentice-Hall International (UK) Limited, *London*
Prentice-Hall of Australia Pty. Limited, *Sydney*
Prentice-Hall Canada Inc., *Toronto*
Prentice-Hall Hispanoamericana, S.A., *Mexico*
Prentice-Hall of India Private Limited, *New Delhi*
Prentice-Hall of Japan, Inc., *Tokyo*
Prentice-Hall of Southeast Asia Pte. Ltd., *Singapore*
Editora Prentice-Hall do Brasil, Ltda., *Rio de Janeiro*
Whitehall Books Limited, *Wellington, New Zealand*

Welcome to the Reader

THE PURPOSE OF THIS TEXT

This book should aid you in understanding and reacting to the exciting, sometimes bewildering macroeconomic issues of the day. Headlines and TV programs are full of reports on unemployment, rising prices, economic growth, and other macroeconomic issues. As a manager and as a citizen, your ability to make best use of your organization's resources and your own personal assets requires an up-to-date, rational assessment of the economic environment. *Macroeconomics for Management* can play an important part in your evaluation of the economy as it analyzes current macroeconomic problems, controversies and forecasting techniques. The text should alert you to the implications of macroeconomic situations for managerial and personal decisions you will be making in the years ahead. For example, capital equipment purchasing decisions, production and inventory decisions, hiring of new personnel, and your own money management and savings plans all depend on analysis of the future macroeconomic environment.

The revision has required a thorough examination of the book's content. The revision has brought the book up to date, adding new data, recent changes in the definitions of economic statistics, and the historical perspective on the economy of the late 1970s and early 1980s, including recent supply side structural changes. A completely new Chapter 13 compares and contrasts alternative views of the macroeconomy, including Keynesian, monetary, supply sider, and rational expectations thinking. A series of short and longer cases, all with discussion questions, has been added to enrich the text and demonstrate the wide applicability of the macroeconomic concepts in specific managerial contexts. The power of the basic analysis and managerial implications remains, a confirmation that the macroeconomic environment is understandable and relevant to decision makers.

How much do managers need to know and understand about the macroeconomy? They must have basic facts and concepts about its workings, a broad understanding of the economic environment in which they will make their decicions, and general tools to forecast the economy and its effects on their organizations. Recognizing this need, this macroeconomics text speaks to generalists who wish to understand their economic world now and in the next 10, 20, or 50 years. The text provides tools that can be used to analyze and predict aggregate economic activity and infer its likely effects on a manager's decisions.

Of course, no one can claim to explain the world a half century away. You should, however, be aware of likely signals of change in this economy, methods to incorporate the changes into your view of the world, and ways to respond to such changes. Knowledge of macroeconomics should improve your reading of the environment, the environment in which you will manage.

This text is designed for an intermediate undergraduate or a basic MBA level course in applied macroeconomic analysis and forecasting. It summarizes the usual Keynesian aggregate demand model of the economy and extends that model by combining aggregate demand and monetary sector representations together in *IS-LM* analysis. Interest rates, income levels, and price levels can all be examined in such a sophisticated model. Also, rather than relying simply on an analysis of demand features, changes in aggregate supply that can and do affect macroeconomic performance will also be investigated. The monetarists' views on the economy are described, and a synthesis of the appropriate use of fiscal and monetary policy is developed, taking into account both theoretical and structural considerations in the behavior of the economy. Discussions of policy issues and historical development of the U.S. macroeconomy are used to provide reference points in evaluating future macroeconomic movements. Methods of forecasting the future progress of the economy are also discussed, using basic macroeconomic concepts as the foundation of the forecasting techniques. In addition, this text includes a brief description of the problems of the international economy, in the areas of both trade and international development. The relevance of macroeconomic concepts and forecasting to the various facets of managerial decision making is demonstrated.

THE COURSE AND THE TEXT

Depending on the instructor's own interests and time limitations as well as on the focus of the course, certain chapters or cases may be omitted or quickly reviewed and still allow reasonably complete coverage of the macroeconomic environment. For example, the international aspect may be omitted if such material is not required for the students' general needs or if other courses in the curriculum cover the international economy adequately, as may be the case for economics majors. The forecasting chapters may be omitted if a statistics or operations management course contains sufficient macroeconomic forecasting applications. For students who have had recent macroeconomics principles courses, Chapter 1–8 may be discussed briefly, emphasizing their relevance as the foundations of the *IS-LM* model rather than spending the time necessary when students' only contact with basic macroeconomic analysis is this course. Instructors should enjoy using the case material to conduct focused discussions on the managerial relevancy of macroeconomic concepts in specific situations. The appendixes provide additional theoretical material, which is interesting but not required for general users.

All courses in macroeconomics, particularly those with the applied focus of this text, are best if some class time is spent discussing current macroeconomic issues. Macroeconomics is an exciting branch of economics because its concepts are so important to economic policymaking and business planning. One of the most important roles of the instructor is to be the classroom's "economist in residence," analyzing current economic problems that are relevant to the course material. Because of the economics of publishing and particularly the long publication lead times, no textbook will ever replace a vital, exciting "economist in the classroom" discussing the issues of the day.

An instructor's manual is available with ideas for useful ways to present the material in each chapter and case and suggestions for discussion topics that should focus the class attention on the current applications of the concepts and issues discussed in the chapter.

MACROECONOMICS AS SCIENCE AND ART

Macroeconomics is a science as well as an art, and this text correctly emphasizes an appropriate combination of the two in a managerial analysis of the macroeconomy. Thus, math is used as an aid to understanding the operations of the economy, not as an end in itself. The Keynesian aggregate demand and monetary sector theories are developed using only graphical and algebraic derivations, and the discussions of current and probable future economic issues, including aggregate supply and the international economics concepts, rely simply on graphical and verbal analysis to point out their broad implications for future macroeconomic progress. Qualitative aspects of the economy are also important. Social and political institutions and changes in society may significantly affect the growth of the economy. This text discusses various institutional issues; for example, the aging of the general U.S. population owing to the increasing average life expectancy and the drop in the U.S. birthrate is bound to shape future macroeconomic relationships, particularly future consumption levels and government financing of the Social Security program.

Thinking about the macroeconomy requires recognition of the interrelationships and interdependencies that exist in the aggregate economic system. This text will try to exemplify such logical, step-by-step thinking by closely reasoned arguments that lead you, as the reader, to a final conclusion on economic issues that may have seemed complicated at first glance. Skipping steps can be disastrous in economic analysis. Rather than quickly accepting what may seem to be an immediate result, you will find that economic analysis can be more complex, but much richer than and much different from the way it seems at first consideration. You must develop this technique of logical analysis before you will be able to properly interpret macroeconomic events as input to your managerial decision making.

The format of this text should highlight your understanding of the interdependencies and important concepts covered in each chapter. Each chapter begins with a "chapter plan" overview of the essential material, and chapter summaries following the text review definitions of key concepts and provide flow chart models of the economic relationships discussed. The problems following each chapter check your ability to apply the ideas you have learned, and the cases following chapters demonstrate the use of the concepts still further.

If you remember that logical thinking is really all that is required, you will find macroeconomic analysis and forecasting interesting, enjoyable, and helpful for managerial decision making. And the conclusions are often surprising. Do join us.

ACKNOWLEDGMENTS

Writing and maintaining a book seems to be a never-ending experience, and I have been very fortunate to have worked with people who cared very much about the quality of the final product. My family listened to the continuing saga and always encouraged me to do the very best I could. My students in the Schools of Management at Boston College and, earlier, Boston University, as well as in executive programs, offered suggestions that they hoped would help others who will learn about the effect of macroeconomics on managerial decision making. Discussions with Dr. Ronald Koot of Pennsylvania State University and Dr. Robert Zimmerman of Xavier University, as well as comments from Dr. Animesh Ghoshal and Dr. William Miller of DePaul University, were very helpful in developing this revision. Research assistants Susan Sweetland and Maureen Burchill worked hard to provide background data for the revision. Monique Marchand, my very good friend and secretary throughout the original project, shepherded the manuscript and me through countless drafts to final copy. Kevin Cullinan and Lucy Caldwell-Stair helped me produce a readable manuscript. I thank all of you very sincerely—we did it!

Mary Louise Hatten
Chestnut Hill, Massachusetts

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chapter 1

Introduction to Macroeconomics

OVERVIEW

Definitions: (1) Economics
(2) Macroeconomics
(3) Political Economy
Advantages of a prosperous economy.

MACROECONOMICS; POLITICAL ECONOMY: WHAT DO THE WORDS MEAN?

Economics describes that part of the world where goods and services are produced and exchanged, usually for money; where people are employed; and where prices rise and fall. Economics is a study of the allocation of limited resources among unlimited wants. The core of *microeconomics* is the examination of allocation processes involving individual firms and consumers. *Macroeconomics*, the study of economic aggregates, focuses on national production and distribution issues. In macroeconomics, the areas of interest are national income, consumption, investment, money supply, and international trade and production relationships.

The allocation of resources, of course, will have far-reaching effects throughout the economic system. For example, at the individual level, we can never have all the goods that we would like; all goods are in limited quantities, so that, in relation to the number of people who would like to have them, all goods are scarce. And because goods are scarce, we exchange with each other to give us access to goods that we did not produce ourselves. In this way, exchange serves to link diverse individuals or groups. Thus, an economic system is really a system of interdependencies among individuals and groups. At the macro level, complex relationships link various sectors of the economy—corporations with consumers, government with investors, and the country's central banking system (the Federal Reserve Bank) with lenders and borrowers. Groups of consumers buy goods produced by corporations, government corporate tax incentives may encourage spending on new production equipment, and the availability of credit through the banking system allows borrowing by prospective homeowners and purchases of furniture and appliances to fill the homes.

Until recently, macroeconomics was more commonly known as "political economy." The term appropriately emphasized the importance of the social and political institutions within which the economy functions and the social and political changes that affect economic activity. For example, an agrarian economy functions differently from an economy characterized by large corporations and large unions. An economy in which the government plays no role in economic activity will produce and distribute its goods differently from one in which government regulation is strong. A rapidly urbanizing nation requires the production of different types of goods and a different level of government activity from those required by a rural economy.

By contrast with the early study of political economy, modern economics has tended to emphasize the more specific mathematical aspects of economic relationships rather than the more general institutional characteristics of an economy, so that the "political" part of the term has fallen into disuse. Nevertheless, the evaluation of social institutions presents a constant challenge to the economist, especially the economic forecaster. As the institutions of a society change, economic relationships and their relative importance change. Sometimes builders of economic models, or more often the interpreters of those models, do not adjust their representations of the economy to correspond to these changes. The result may be erroneous predictions, often substantially out of phase with the actual movements of the economy. Erroneous predictions of economic changes can lead to poor managerial and personal decisions. Faulty predictions can also lead to poor national economic policymaking, possibly resulting in high unemployment, high prices, and a generally unstable macroeconomy for the nation. Thus, the interests of macroeconomics appear to be most responsibly served by remembering the relevance of the older "political economy" to the analysis of modern economic issues.

THE INDIVIDUAL IN THE ECONOMY

Rather than focusing on economics solely as a theoretical discipline, we must understand that the level and quality of economic activity directly affect individuals living and working in the economy. For example, in unstable, poorly functioning economies, people have grave difficulty finding jobs that match their abilities and education. Or perhaps continually rising prices render savings worthless, so that old age becomes not a time for relaxation after a life of labor but a struggle for survival. The situation is even more critical in chronically poor economies, where per capita income may be below the subsistence level, causing severe malnutrition or starvation for many.

The manager of a firm in a poorly functioning economy may have difficulty obtaining a sufficient quantity or quality of materials for the firm's production processes at a price that is deemed reasonable. The manager may also encounter problems distributing the firm's products and finding buyers able to purchase the goods. Investment opportunities may also be hard to find in a depressed economy, and even making the best use of accumulated personal assets can be extremely difficult.

In a thriving economy, by contrast, both individuals and society as a whole can benefit from the efficient production of goods and services. People are working; families are receiving incomes and can purchase goods and services that give them satisfaction, or, in economists' jargon, utility. Economic progress gives people access to developed markets for technologically advanced goods, and a strong market for such goods encourages further technological progress. A well-functioning economy is attractive to foreigners as a promising site for investing capital or purchasing goods.

A stable, advancing economy also aids social progress. For instance, many students whose parents never went to college themselves have baccalaureate or advanced degrees. In a sense, the economy is producing so much that it can afford the "luxury" of a student's absence from the work force during the years of study. The time invested will be more than compensated for by the increased productivity that will be contributed to society as a result of this training.

A thriving economy allows managers to plan their production and personnel programs with reasonable confidence that the economy will continue to advance and allow them to implement their plans and achieve their goals for sales, production, cost, and profit. It also aids managers in judging their own organizations' year-to-year progress and in evaluating their own managerial skills, knowing that the economic environment does not present an uncontrollable hindrance to high-quality performance. Personal investors are also more likely to see their investment plans fulfilled in a prosperous economy.

PLAN OF THE BOOK

A well-run economy facilitates the production and exchange of goods and services. Such an economy allocates resources to their most productive uses and thereby makes managers' decisions substantially more effective. But how do we define a healthy economy? What are the desirable characteristics of a thriving macroeconomy, and how shall we attain them? How can we forecast future economic progress? These are the questions that we seek to answer in this book.

We begin in Chapter 2 by describing the major goals of the modern macroeconomy, the goals that must be reached to achieve a well-functioning economy, and the historical motivations for those goals. We continue in Chapter 3 with a discussion of national economic statistics and the use of those statistics to