As a Second Language™

Macroeconomics

Martha L. Olney

Macroeconomics as a Second Language

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To my students
This one's for you!

About the Author

Martha L. Olney is an award-winning teacher of economics and the author of several economics textbooks. She is the recipient of Distinguished Teaching Awards from the University of California at Berkeley and the University of Massachusetts, Amherst; the Jonathan Hughes Prize for Excellence in Teaching Economic History from the Economic History Association; and was recognized in 2007 by the Stavros Center for Free Enterprise and Economics Education of Florida State University as one of the nation's Great Teachers of Economics.

Her previous textbooks include *Microeconomics as a Second Language* (Wiley, 2009), *Macroeconomics*, co-authored with Brad DeLong (McGraw-Hill, 2006), and *Essentials of Economics*, co-authored with Paul Krugman and Robin Wells (Worth, 2007).

She currently serves as Adjunct Professor of Economics at the University of California, Berkeley. Her open-access website includes course materials for Principles of Economics and other courses: *http://www.econ.berkeley.edu/~olney*.

Preface

Economics is all around us all the time. Much of it is quite intuitive. But you'd never know it if by some cruel turn of fate you were dropped into the middle of an "Intro to Econ" lecture at your local college or university. That's because the intuition gets lost in the language.

With apologies to *Through the Looking Glass* author Lewis Carroll, whom I paraphrase: Economists use words to mean exactly what we want them to mean. Words like "rational" have a perfectly fine dictionary meaning. Economists use "rational" in a different way, to mean "behavior that is consistent with trying to maximize something." Or, what about "market"? You might think that means a store, a place you go to buy something. Not to an economist. The "market for tomatoes" doesn't exist at your local farmer's market, or grocery store. A "market" is an idea, an abstraction, a collection of all the behavior and potential behavior of those who want to buy and those who want to sell something.

The key to "getting" economics is to view it as a second language. You need to become conversant in econ-speak just as you would in French or Japanese or any other new-to-you language. The ideas of economics are intuitive. The expression of economics is a second language.

ABOUT THIS BOOK

Macroeconomics as a Second Language "cuts to the chase." It zeroes in on the concepts, assumptions, and models that you need to learn. This book is a student study aid in the Principles of Macroeconomics. We take a bare-bones approach here. Our focus is the principles of macroeconomics and the language used to express them.

What if you're not currently enrolled in a macroeconomics course? This book is a good aid for you, too. Trying to pick up some economics concepts and language? This book will help you out. Trying to follow the news about the economy? This book is for you. Rather than wade through a 700–900 page principles textbook, *Macroeconomics as a Second Language* gives you the basics to get you up to speed quickly.

ORGANIZATION

Macroeconomics is a story, a rather long story at that. Think of it as a novel, with characters introduced in the early chapters, the action unveiled in the middle chapters, and the characters' experiences placed into a context in the final chapters. Reading just the first chapter won't give you a sense of the story. Jumping in at the middle creates confusion about who is who. Reading only the last chapter leaves you baffled as to how it all fit together.

For those who have studied microeconomics, the study of macroeconomics can be a bit of a jolt. Economists agree on what is to be taught in micro. In microeconomics, there is one story and one basic approach: start from supply and demand, then examine the various sources of market failure.

Macroeconomics enjoys little of that agreement. Pick up six textbooks at random and you'll probably find four—or more—different approaches to macroeconomics. Terminology accounts for some of the difference. But that's not all. What order should the material be presented in? What topics should be included—and omitted? What relationships should be emphasized?

While the companion volume *Microeconomics as a Second Language* can help you out in nearly any microeconomics class taught in any classroom, the same promise can't be made for this book. In *Macroeconomics as a Second Language*, I chose to present the material in the order and with the emphasis that makes sense to the thousands of students I have taught.

Part I contains the basics. An overview of macroeconomics is provided in Chapter 1. Economics principles are often expressed with equations and graphs, so Chapter 1 also presents the math and graphing tools you need. We dive into economics in Chapter 2 with the model of the Production Possibilities Frontier (PPF), which is about the choices we make in deciding what goods and services will be produced. Demand and Supply is the most often used model in economics; Chapter 3 helps you master it. How we measure the macroeconomy—output, unemployment, and inflation—is covered in Chapter 4.

Macroeconomics is the study of long-run growth and short-run fluctuations. Long-run growth—how does the standard of living change from generation to generation—is addressed in Chapter 5. The remainder of the book focuses on short-run fluctuations: Why do an economy's unemployment and inflation rates change from year to year?

Keynesian principles (Part III) are the basics of most macroeconomic analysis, even by people who assert "I'm not a Keynesian." Those principles are:

- The amount of output that firms produce depends upon the total (or, aggregate) demand for goods and services (Chapter 6).
- Total (or, aggregate) demand is the sum of consumption, investment, government, and net export spending (Chapter 7).
- Because consumption depends on income, any initial change in aggregate demand has a multiplied effect on total output (Chapter 8).

Policy is studied in Part IV, starting with an overview of fiscal and monetary policy in Chapter 9. Fiscal policy, government deficits and debt are covered in Chapter 10.

Monetary policy takes up the next three chapters. Money is *not* created by a government printing press; money is created by banks making loans (Chapter 11). The central bank—in the United States, the Fed—can change the amount of money in the economy, but must choose between pursuing a money supply target and an interest rate target (Chapter 12). Monetary policy changes interest rates, which affect aggregate demand (Chapter 13).

The determination and effect of price inflation are the focus of Part V. I'll let you in on a little secret: macroeconomists' understanding of why and how prices change is the weakest part of macroeconomics. They are better at explaining the *effects* of a change in prices than they are in explaining the *causes* of a change in prices.

For three decades, macro has been taught with the aggregate supply/aggregate demand (*AS/AD*) model (Chapter 14). The *AS/AD* model is useful for explaining the 1970s and early 1980s, a time when the model's critical assumption, that the central bank targets the money supply, was satisfied. More recently, macro has been taught with a monetary policy model (Chapter 15), also known as the Taylor Rule approach, or a monetary policy reaction function. This model starts from the assumption that the central bank sets an interest rate target based on current and future expected values of inflation and output. By the end of Chapter 15, you'll be able to analyze the Fed's behavior with the best of them.

An "open" economy is one in which exports and imports are not zero. Like most textbooks, this book concludes with a chapter on open economy macro. But the discussion of exports and imports is not confined just to Chapter 16. The determinants of exports and imports are in Chapter 7; the open economy multiplier is in Chapter 8; monetary policy's effects on exports and imports are in Chapter 13.

FEATURES

Each chapter begins with a list of the key terms and concepts, graphs, and equations covered in that chapter. The first use of each concept in the chapter is highlighted in **bold**. The index at the back of the book also contains all these key terms.

TIP

"TIP" notes in each chapter highlight tricks for remembering or common errors to avoid.

TRY

"TRY" questions give you the chance to test what you've learned. Answers to all "TRY" questions are at the back of the book.

HOW BEST TO LEARN ECONOMICS

Economics is not a novel to be read at the beach. (Though we welcome beach-goers to give this book a try!) Economics is best learned with pencil in hand. Don't just read a new term. Write it down. Don't just look at a graph. Draw it yourself. Jot notes and questions in the margins. Be actively engaged with what you are reading.

And then comes the key to truly learning econ. Breathe it. Everywhere you look, everything you read, every word you hear—think econ. Think about how you can explain it in the language of economics.

The world is rife with bloggers and pundits arguing over the effects of fiscal and monetary policy . . . break it down with the language of macroeconomics. Local communities are cutting spending and raising taxes . . . understand why with the language of macroeconomics. Family members struggle with unemployment . . . gain insight into their predicaments with the language of macroeconomics. A politician wants your vote . . . analyze the promises with the language of macroeconomics.

Economics is all around you. To become fully conversant in the language of economics, think econ. All the time. And now, let's begin.

Acknowledgments

Thank-yous are usually perfunctory. In this case, that's not so. My mother's descent into dementia and her eventual death necessitated a much greater than usual level of patience and understanding from the folks at Wiley. Judith Joseph believed in this project from the beginning, and I am truly grateful. Jennifer Manias stepped into the project and offered the right mix of understanding and urgency. Thank you. Very much.

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Contents

PART I

Basics

Chapter 1

Economics Tools—Math and Graphing

Economics studies the behavior of the economy. Microeconomics studies the behavior of individuals within the economy; macroeconomics studies the economy as a whole. This book and its companion volume, *Microeconomics as a Second Language*, highlight the language of economics. Both books are designed to be supplements to standard principles textbooks. This chapter begins with an overview of macroeconomics, and also focuses on the mathematical tools used in studying economics.

KEY TERMS AND CONCEPTS

- Microeconomics
- Macroeconomics
- Aggregate
- Positive economics
- Normative economics
- Empirical evidence
- Social science
- Economic models
- Functional notation
- Variable
- Dependent variable
- Independent variable
- Δ means change
- Rate of change
- Two-dimensional graph
- Horizontal axis
- Vertical axis
- Truncated axis
- Curve
- Slope
- Directly (positively) related
- Inversely (negatively) related