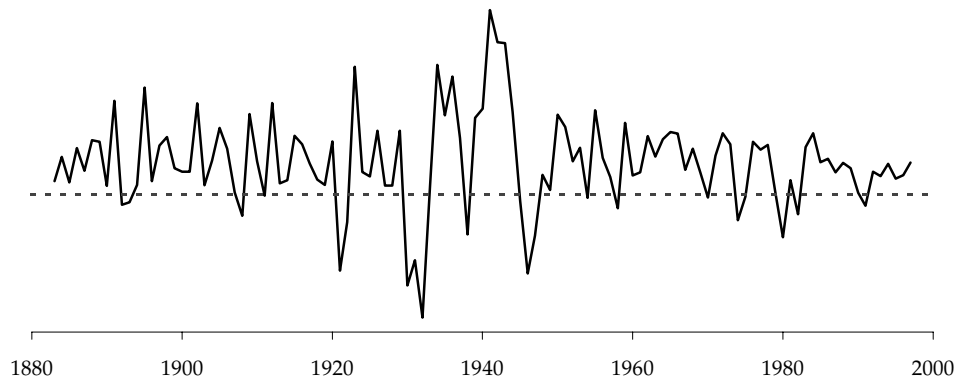


MACROECONOMICS



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Preface

We have designed this book to be a supplement to Robert J. Barro's *Macroeconomics*, which is the textbook that is used in introductory macroeconomics courses at the University of Chicago. In teaching these courses, we have found that Barro's treatment of the subject does not make use of the mathematical skills of our students. In particular, Barro relies almost exclusively on economic intuition and graphs to elucidate his subject. Since our students are familiar with calculus, we are able to work out formal models. This almost always allows greater concreteness and concision.

We have attempted to align our chapters with those in Barro's textbook. Sometimes our chapters present mathematical versions of the models that Barro introduces in his corresponding chapters (as in Chapters 2 and 19). Other times, our chapters contain material that extends his work (as in Chapters 5 and 17). Throughout, we have tried to add value to the treatment in Barro's book and to minimize redundancy. For example, we have nothing to add to Barro's Chapters 7, 16, and 20, so we have not covered those chapters. Three chapters deviate from this plan. Chapter 1 develops the mathematics of interest rates and growth rates; Barro does not cover these topics, but they are behind the scenes in his Chapter 1 and throughout his book. Chapter 10, which covers unemployment, is completely unrelated to Barro's Chapter 10. It is intended as a companion to the book *Job Creation and Destruction* by Davis, Haltiwanger, and Schuh. Chapter 18 covers the relationship between the government budget constraint and inflation along the lines of the "Unpleasant Monetarist Arithmetic" of Sargent and Wallace. Although Barro has a sidebar on this topic in his Chapter 14, we feel that it is important enough to merit a chapter of its own. We chose Chapter 18 since it is a natural point between fiscal policy (Chapters 12, 13, and 14) and monetary policy (Chapter 19). Barro's Chapter 18 is a review of the empirical evidence on the effect of monetary shocks on the real economy, and is well worth covering.

There are exercises after each chapter, and we have provided complete solutions at the end of this book. We believe that exercises are essential for students to learn this material. They give students a sense of what they ought to know, since these exercises have been drawn from several years of exams. Also, we often use exercises to introduce extensions to the material in the text. We have attempted to estimate the difficulty of these exercises, labeling them as "Easy," "Moderate", or "Hard". An exercise with a "Hard" rating may require a lot of algebra, or it may use unfamiliar concepts. Most other questions are rated

as “Moderate”, unless they have one-line solutions, in which case we usually rated them as “Easy”.

We teach this material in two ten-week courses. In the first course we cover Chapters 1, 2, 3, 6, 4, 5, 7, 8, 9, and 11, in that order. This allows us to keep together all the material on monetary economics (Chapters 4, 5, 7, and 8). In the second course, we cover Chapter 10 (unemployment); Chapters 12, 13, and 14 (fiscal policy); Chapters 15 and 16 (international macro); and Chapters 17, 18 and 19 (money and banking). Since this is quite a lot to cover in ten weeks, instructors of the second course have traditionally touched only briefly on unemployment and international macro and concentrated instead on monetary and fiscal policy. The second course can benefit substantially from outside readings, such as: *Rational Expectations and Inflation* by Thomas Sargent; *A Monetary History of the United States* by Milton Friedman and Anna Schwartz; and *Job Creation and Destruction* by Davis, Haltiwanger, and Schuh.

This book would not have been possible without the support of the Department of Economics at the University of Chicago and the encouragement of Grace Tsiang. We would also like to thank the many students and faculty who have helped us to develop this material. A number of exercises in the first half of the book were based on questions written by Robert E. Lucas, Jr. The material in the second half of this book has benefited from several generations of instructors of Economics 203. In particular, Alexander Reyfman wrote a series of lectures which were the genesis of Chapters 12 through 19. Reyfman’s teaching assistant Bill Dupor, and Lehnert’s teaching assistants Jerry Cubbin and Tom Miles, all contributed valuable suggestions. During Cubbin’s tenure as TA, he wrote most of the solutions to the problem sets, and several of these have found their way into this book. All students subjected to early drafts of this material contributed to the book’s current form; Shannon Thaden, Ben Ruff, and Calvin Chan deserve special mention.

In spite of all the comments and suggestions we have received, this book inevitably contains errors and omissions. We would be grateful if you would bring these to our attention. The authors can be reached by e-mail at:

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There is also a tear-out feedback form at the end of the book, along with a tear-out midterm-evaluation form for Economics 202 and 203.

Finally, some of the material in this book involves policy prescriptions. At some level, policy is a matter of opinion. The opinions expressed herein are not necessarily those of the Board of Governors of the Federal Reserve System.

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