Macroeconomics for MBAs and Masters of Finance

Using a rigorous and concise framework, this book teaches the foundations of modern macroeconomic theory and its methods. It is ideally suited for students taking a first graduate course in macroeconomics as part of an MBA, finance, or economics degree. The book explains recent advances of modern macroeconomic theory with respect to growth, business cycles, and asset pricing by focusing on aspects of firm and household behavior that are embedded in modern macroeconomic studies. Throughout the book data issues are discussed in detail: where to find the data, how to download it, and the correspondence of data with model predictions. The mathematical level assumes that students have taken a course in calculus. With its emphasis on dynamic intertemporal macroeconomics and the use of data, the book provides students with a core toolkit that will equip them both for more advanced study and for professional careers as economists.

Additional resources (including PowerPoint slides for each chapter, detailed answers to all the questions in the book, and links to useful sites) are available online at www.cambridge.org/macro4mba.

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Macroeconomics for MBAs and Masters of Finance

Morris A. Davis
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Preface

In June 2006, the Dean here at Wisconsin School of Business at the University of Wisconsin-Madison, Mike Knetter, asked me to teach a five-week segment on macroeconomics to the first-year full-time MBA students. After some thought, I decided on three goals for the course.

First, I wanted to teach what I considered to be the essential components of modern macroeconomics. This includes, at a minimum: the theory of firms and long-term growth implications; the theory of households and asset-pricing implications; the availability and history of the macroeconomic data on which these theories are based and tested; and then, if time permitted, trade, business cycles, and monetary policy. I figured that if the MBAs were exposed to what I considered essential macroeconomics, they would not confuse daily changes in stock prices with true macroeconomic phenomena.

Second, I wanted to emphasize the ideas generally agreed upon by academic macroeconomists, for example the nature of aggregate production and growth. At the same time, I wanted to downplay or ignore areas of research that are hotly contested, such as the efficacy (or lack thereof) of monetary policy at stabilizing the business cycle.

Third, I wanted the course to be mathematically rigorous but accessible with some modest effort. There are a few reasons for the rigor. A bit of mathematics allows key ideas to be taught quickly and precisely. Also, students studying for a Masters degree should be held to a higher standard than students taking an undergraduate intro course. Finally, I wanted to show students how economists think about the world: economists study the logical outcomes arising from well-specified models of endowments, preferences, and technology.
This leads me to this book. When I was evaluating textbooks for the MBA class I was a bit disappointed with what I saw. To start, in general, the books are not rigorous enough. Many of the available macroeconomics textbooks are not demanding enough of a mid-twenties college graduate studying for an advanced business degree. Second, they aren’t that useful: they don’t show the students how to download and access the key data, what the data look like, and why. And third, the textbooks I saw tended to emphasize areas where there is a lot of debate in the profession, such as the cause of business cycles and the usefulness of monetary policy.

Finally, many textbooks were quite lengthy! The essentials of macroeconomics can be taught quickly, if some basic math is used. In this book, we cover firms and growth by working with a representative firm that produces according to a Cobb–Douglas production function, and we study household consumption and savings and the implied asset-pricing implications using a two-period model where a representative household has time-separable log preferences for consumption. In my mind, this is the simplest framework that gets at the essence of modern macroeconomics. To understand the mathematics of the book, the readers need to know how to take the derivatives of a polynomial (for Cobb–Douglas production) and the natural log function (for household utility). The mathematical appendix inelegantly reviews the key mathematics used in this book.

This book is organized as follows: In the first chapter I define key macroeconomic variables such as GDP and inflation, and also document where the key macroeconomic data are located and their historical patterns. In the second chapter, I cover firm behavior which naturally leads to the theory of growth. In the third chapter, I cover household behavior (specifically consumption, saving, and labor supply decisions) which naturally leads to a theory of asset pricing.
The fourth, fifth, and sixth chapters are short chapters that cover important topics in macroeconomics, but in much less detail. The fourth chapter is a stand-alone chapter on trade. Using the simple idea of comparative advantage, I cover the topics of intratemporal trade (goods for goods) and intertemporal trade (goods for assets). I also cover the impact of trade on domestic interest rates and wage rates, and the topics of covered interest parity, purchasing power parity, and the Fisher equation. The fifth chapter covers business cycles and the sixth chapter covers monetary policy. These chapters focus more on the data, and are more loose in the theory, in the following sense: I do not really explain why business cycles occur because I myself am unsure, and I do not explain the theory of why US policymakers adjust or do not adjust the Federal Funds Rate, which is the overnight rate at which banks borrow reserves.

At the end of each chapter I include a “Further Reading” section, which lists a few potentially interesting and related topics that I do not cover. In some of these cases, I direct the students to entries of the website Wikipedia. I understand there can be prejudice against Wikipedia, sometimes with good reason, but in the specific cases I reference I believe the Wikipedia entries are as informative as more conventional sources. Wikipedia has the added benefit that it is quickly available by anyone with web access. I should note that all the websites cited in the book were accessed and found to be accurate in May 2009.

For my five-week MBA class, I cover (in this order) Chapters 1 and 2 and the first half of Chapter 3 up through the equity-premium puzzle. Sometimes we can cover some material from Chapters 4–6, but most times not. For my evening and executive MBA classes, which have fewer hours, I cover the chapter on trade and then the

1 In my own research, business cycles are the result of “shocks” to the level of technology.
2 I introduce mathematics from the appendix as the need arises.
Preface

less-technical material in Chapters 1 and 2. For a full-semester class of full-time MBAs or Masters students in finance, I would simply teach the book in order.

Before I conclude, I want to explain the cover. The cover is meant to look like a Ramones album. To me, the Ramones represent rock’s reaction to progressive rock. Prog rock (“prog”) songs are typically long and boring with lots of embellishment and orchestration. Ramones tunes are short, straight, and to the point – no monkey business! I would like to believe that this book is to current macro textbooks what the Ramones are to prog.

I owe a great deal of thanks to many people. First, I thank my colleagues here at the business school at the University of Wisconsin-Madison who suffered through early drafts of this book and contributed intellectually to its contents. Specifically, I owe quite a bit to Don Hausch (who co-teaches the economics course to our full-time MBAs with me), Mike Knetter, and my colleagues in the Real Estate department: François Ortalo-Magné, Stephen Malpezzi, and Tim Riddiough. Second, I thank Chris Harrison at Cambridge University Press, who has been both patient and generous with his time. Neither he nor any of his colleagues at Cambridge University Press have tried to appreciably alter the tone and/or contents of this book. Finally, I thank my wife Kim, and kids Jackson, Lauren, and Brett. They haven’t done so much for this book, but they put up with a lot.
Perhaps it's not immediately obvious why an applied microeconomist would write a preface for a macroeconomics text. Some might even say that it's not such a good idea. Nevertheless, I am pleased to introduce you to Morris Davis's *Macroeconomics for MBAs and Masters of Finance*.

Years ago, the first course I ever taught was, in fact, introductory macroeconomics. I thought then, and still do, that it would be great to have a concise introduction that was somehow both practical and rigorous. Finally, we have that book, and you're holding it in your hand.

Morris Davis is on the faculty of the Department of Real Estate and Urban Land Economics in the Wisconsin School of Business, where he's also a fellow of the James A. Graaskamp Center for Real Estate. After a strong training in economics at the University of Pennsylvania, Morris was an economist at the Board of Governors of the Federal Reserve before we persuaded him to move to Madison.

Our Dean, Michael Knetter, is himself a macro and trade economist of some repute. When we hired Morris a few years ago, Mike noticed Morris's strong training and practical experience in macroeconomics. The Dean proposed that in addition to real estate, we assign him to teach our core macro course to MBAs. Professor Davis readily agreed. Unable to find a concise, rigorous yet practical textbook when I taught macro many years ago, I whined and then made do with what I could find. Morris took direct action, and over the summer before his first semester's teaching wrote one!

It's an impressive little book. In a little over 200 pages Morris covers the basics of national income accounting, firms and growth,
households and asset pricing, business cycles, trade, and just a touch of monetary theory and policy. And you get an appendix with that. For a number of MBAs, finally understanding how constrained optimization works (since most intro calculus courses ignore it, but it’s the mathematical underpinning of most economics) is alone worth the price of admission.

The book has been field-tested by several cohorts of Wisconsin MBAs, and is ready to burst onto a bigger stage. I’m especially a fan of Chapter 1, since I’m an empiricist and I think every business man and woman needs to know how we measure the economy. Most of us know far too little. But data need a framework to really be useful, and the rest of the book will teach you how economists think about aggregate economies.

You have a hint about some of Professor Davis’s interests beyond economics from the front cover. Morris is known not only for his excellent teaching and path-breaking research but also for the solid groove he sets down as bassist for The Contractions, probably – no, certainly – the best rock band ever comprised completely of economists. MP3s and more at http://contractions.marginalq.com/. Move some to your iPod for the perfect soundtrack to accompany your study of the aggregate economy.

Enjoy!

Steve Malpezzi
Madison, Wisconsin