Macroeconometric Analysis

Preface

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A steady stream of conceptual and computational advances realized over the past three decades has greatly diminished the gulf that has historically separated theoretical from empirical research in macroeconomics. As a result, measurement is becoming increasingly aligned with theory. The purpose of this text is to provide guidance in bringing theoretical models to the forefront of macroeconometric analyses.

The text is suitable for use as a supplementary resource in introductory graduate courses in macroeconomics and econometrics; and as a primary textbook in advanced graduate courses devoted to the pursuit of applied research in macroeconomics. The notes that ultimately gave rise to the text were designed for this latter purpose. The text’s historical perspective, along with its unified presentation of alternative methodologies, should also make it a valuable resource for academic and professional researchers.

 Readers of the text are assumed to have familiarity with multivariate calculus and matrix algebra, and cursory knowledge of basic econometric techniques; otherwise, the text is self-contained. Familiarity with dynamic programming is also useful. This is the tool used to map the class of models of interest here into the system of non-linear expectational difference equations that serve as the point of departure for the empirical methodologies presented in the text. However, familiarity with dynamic programming is not needed to follow the text’s presentation of empirical methodologies.

We decided to write this text because we teach the material it contains, and we use it in pursuit of our own research interests. We set out to accomplish two objectives in writing it. First, we wished to provide a unified overview of this diverse yet interrelated area of active research. Second, we wanted to equip students with a set of tools that would expedite their own entry into the field.
In writing the text, we have benefitted greatly from collaborative research pursued with a fabulous group of co-authors: Beth Ingram, Roman Leisenfeld, Jean-Francois Richard, Marla Ripoll, and Chuck Whiteman. We are deeply indebted to them for their implicit and explicit contributions to this project. We have also benefitted from comments received from [This sentence is under construction: add your name here! I.E., comments welcome!] on various aspects of the text.