

Preface

How do intellectual disciplines progress? Undoubtedly, the discipline of economics — and macroeconomics, in particular — is affected by major changes in economic conditions. The Great Depression greatly influenced the perceptions of a generation of economists, beginning with Keynes. The oil shocks of the 1970s and the 1980s affected economists' views regarding the sources of macroeconomic fluctuations.

Sometimes, the development of new techniques or new ways of modeling can also affect the course that a discipline takes. Large-scale computers in the post-World War II era played an important role in the development of simultaneous equation models. In recent years, real business cycle (RBC) analysis has come to provide a flexible and popular approach for examining macroeconomic phenomena. In 2004, Finn Kydland and Edward Prescott received the Nobel Prize in Economics, and The Royal Swedish Academy of Sciences published a report titled *Finn Kydland and Edward Prescott's Contribution to Dynamic Macroeconomics: The Time Consistency of Economic Policy and the Driving Forces Behind Business Cycles* [204]. The field of macroeconomics has changed significantly due to Kydland and Prescott's contributions.

This book draws upon Kydland and Prescott's original contribution. I was a Ph.D. student at the Graduate School of Industrial Administration at Carnegie Mellon University when Kydland and Prescott's "Time-to-Build and Aggregate Fluctuations" article was published in the early 1980s [141]. My thesis was on estimating the model in the same article. The model was rejected, much to the delight of macroeconomists of a more Keynesian bent! Yet many felt that economic models should be subject to formal econometric and statistical testing. This debate continues to this day.

Kydland and Prescott's seminal article initiated the school of RBC analysis. This literature evolved in different ways. Talented and creative individuals extended the initial Kydland–Prescott research in different ways. Not content with the initial rejection of the model, many researchers also pursued the econometric analysis of RBC models. In recent years, researchers at central banks have begun using so-called dynamic stochastic general equilibrium (DSGE) models for policy analysis.

This book attempts to provide an overview of the burgeoning business cycle literature that, in many ways, reflects my own interests. There have been a number of excellent publications that have examined different facets of this literature. The volume by Thomas Cooley [74] can be considered a primer of RBC analysis and its applications. James Hartley, Kevin Hoover, and Kevin Salyer's [116] collection of articles provides a critique of the calibration approach. Jordi Gali's [97] recent text articulates an alternative New Keynesian framework for describing aggregate fluctuations. This book takes a more eclectic approach, asking some basic questions about RBC analysis and summarizing the ongoing controversies surrounding it.