Preface

THIS BOOK EXPLORES the interplay among financial economic theory, the availability of relevant data, and the choice of econometric methodology in the empirical study of dynamic asset pricing models. Given the central roles of all of these ingredients, I have had to compromise on the depth of treatment that could be given to each of them. The end result is a book that presumes readers have had some Ph.D.-level exposure to basic probability theory and econometrics, and to discrete- and continuous-time asset pricing theory.

This book is organized into three blocks of chapters that, to a large extent, can be treated as separate modules. Chapters 1 to 6 of Part I provide an in-depth treatment of the econometric theory that is called upon in our discussions of empirical studies of dynamic asset pricing models. Readers who are more interested in the analysis of pricing models and wish to skip over this material may nevertheless find it useful to read Chapters 1 and 5. The former introduces many of the estimators and associated notation used throughout the book, and the latter introduces affine processes, which are central to much of the literature covered in the last module. The final chapter of Part I, Chapter 7, introduces a variety of parametric descriptive models for asset prices that accommodate stochastic volatility and jumps. Some of the key properties of the implied conditional distributions of these models are discussed, with particular attention given to the second through fourth moments of security returns. This material serves as background for our discussion of the econometric analysis of dynamic asset pricing models.

Part II begins with a more formal introduction to the concept of a "pricing kernel" and relates this concept to both preference-based and no-arbitrage models of asset prices. Chapter 9 examines the linear asset pricing relations—restrictions on the conditional means of returns—derived by restricting agents' preferences or imposing distributional assumptions on the joint distributions of pricing kernels and asset returns. It is in this chapter that we discuss the vast literature on testing for serial correlation in asset returns.

Chapter 10 discusses the econometric analyses of pricing relations based directly on the first-order conditions associated with agents' intertemporal consumption and investment decisions. Chapter 11 examines so-called beta representations of conditional expected excess returns, covering both their economic foundations and the empirical evidence on their goodness-of-fit.

Part III covers the literature on no-arbitrage pricing models. Readers wishing to focus on this material will find Chapter 8 on pricing kernels to be useful background. Chapters 12 and 13 explore the specification and goodness-of-fit of dynamic term structure models for default-free bonds. Defaultable bonds, particularly corporate bonds and credit default swaps, are taken up in Chapter 14. Chapters 15 and 16 cover the empirical literature on equity and fixed-income option pricing models.