Expectations and the Structure of Share Prices

John G. Cragg and Burton G. Malkiel
John G. Cragg and Burton G. Malkiel collected detailed forecasts of professional investors concerning the growth of 175 companies and use this information to examine the impact of such forecasts on the market evaluations of the companies and to test and extend traditional models of how stock market values are determined.

While the authors find that the forecasts—made by large professional investment organizations—lack consensus and are of poor quality, they rate them as superior to simple extrapolation of previous trends in earnings growth. Also, they are unable to reject the proposition of rational expectations that all available information is included in the forecasts. They conclude that there is no information that is not reflected in market prices of securities—no inefficiencies in the pricing of securities that would allow one to make extraordinary profits by utilizing these professional predictions.

The authors go on to develop a more general version of the capital asset pricing model that incorporates the information they have collected. This new model can express dimensions of risk—changes in the national income, in the inflation rate, and in interest rates—hitherto not taken into account and has extremely important implications for those who use modern portfolio theory in practice.

*Expectations and the Structure of Share Prices* serves to increase considerably our knowledge of the workings of the stock market. It not only provides interesting and practical results, but also includes a set of data that should prove useful to
Expectations and the Structure of Share Prices
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(Resolution adopted October 25, 1926, as revised through September 30, 1974)
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Preface

This monograph investigates a number of interrelated questions about the formation of expectations and the pricing of capital assets. Central to the empirical work is a unique body of expectations data collected over the decade of the 1960s. The book first describes the data and then examines a number of questions regarding the consensus, accuracy, and completeness of the forecasts as well as the underlying process that appears to generate the forecasts. The book then turns to the development of a restatement of financial-asset valuation theory and goes on to use the expectations data we have collected to test the model. We find that our data permit far more satisfactory tests of valuation models than have been possible before and that they help provide important insights into the structure of security prices. Because we believe that these data will be helpful to other researchers, we have published the data themselves in as much detail as our respondents would permit.

More than a decade has passed since the data were originally collected, and so they may not represent the most up-to-date practices. There are, however, important advantages to our having waited a considerable period before publishing our results. First, one of the questions we ask concerns the accuracy of the forecast data and it is necessary to wait a considerable period in order to compare realizations with long-run forecasts. Indeed, in a preliminary article dealing with just the first two years of our data, we were not able to provide proper tests of accuracy because the forecast period had not yet elapsed (see Cragg and Malkiel 1968).

There is a second advantage in a delay, in that the data were collected during a period when the capital-asset pricing model and other, more recent valuation models were not generally known in the financial community. Hence the data were clearly not influenced by now popular notions concerning how assets are actually valued in the market. In this
sense, the data can be considered uncontaminated and should provide fair tests of alternative valuation models.

A major data-gathering effort such as the one reflected in this study requires considerable financial support, and we have been enormously aided by several institutions. A vital contribution was made by the Institute for Quantitative Research in Finance. That institute was the original sponsor of this study and not only provided important financial help but also aided in the recruitment of a large number of the institutional investors which cooperated in the study. Princeton University's Financial Research Center—which in turn has been generously aided by the Merrill Foundation, the John Weinberg Foundation, and the Princeton University Class of 1950—provided invaluable support during the course of the study. Finally, the book was supported in part by the Debt-Equity Project, which is sponsored by a grant to the National Bureau of Economic Research by the American Council of Life Insurance. The National Bureau of Economic Research not only provided funds during the final stages of the study but also, through its seminars and meetings and through the dissemination of its working papers, provided important assistance to us in completing the manuscript.

It would simply be impossible to thank individually all of the people who offered suggestions and help during the course of this study. We should, however, make special note of the individuals who read the final manuscript and offered extremely valuable comments. We record our deepest debt of gratitude to G. C. Archibald, Philip Dybvig, Benjamin Friedman, Stewart Myers, and Richard Quandt. They all made important substantive contributions but are, of course, blameless for any errors that may remain.

A study such as this which involves considerable computer work could not have been done without the help of many research assistants. We would like to thank Tom Chung, Deborah Holman, Darryl Pressley, James Rauch, William Silbey, and especially Stephen Williams for invaluable support.

Particular thanks are due to Elvira Krespach, our principal computer programmer over the course of the study. We also were helped by several people in producing the final manuscript. We are grateful to Constance Dixon, Phyllis Durepos, Maryse Ellis, Murriel Hawley, Louise Olson, Helen Talar, and especially Barbara Hickey, who oversaw the production work and typed much of the final draft.

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