BUSINESS FORECASTING

SECOND EDITION

J. Holton Wilson

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S E C O N D E D I T I O N

BUSINESS FORECASTING

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BUSINESS FORECASTING

To Eva, Ronnie,
and Clara
and
To Maryann,
John, Vincent,
and Alice

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The second edition of *Business Forecasting* builds upon the success of the first edition. While a number of significant changes have been made in the second edition, it remains a book about forecasting methods for practitioners and for students who may one day be practitioners. Our emphasis is on those forecasting methods that practitioners have actually found useful. *Business Forecasting* is written for students and others who want to know how it's really done.

The second edition of the text includes the following new features that we are confident will enhance the process of learning how to forecast:

- Nine sidebars, which have been contributed by forecasting practitioners. These provide a very practical perspective from the "real world" to help students appreciate the relevance of the concepts presented in the text.
- Enhanced emphasis on visual inspection of data. Evaluation of data for trend, seasonal, and cyclical components is introduced in Chapter 2 and is related to the process of model selection.
- A database containing 101 variables from the widely used CITIBASE database. The variables included are listed in the Appendix to Chapter 2 and can be accessed directly using the SORITEC Sampler software packaged with the text.
- A new chapter that describes the emerging technique known as *bootstrapping*.
- Expanded discussion of measures of forecast accuracy in Chapter 1.
- A text appendix that contains a "User's Guide to BEA Information." The Bureau of Economic Analysis (BEA) publishes a wide variety of data that are useful to business forecasters. This appendix will help readers learn to access these data.

Today, most business planning routinely begins with a sales forecast. Whether you are an accountant, a marketer, or a financial analyst, you will have to forecast something sooner or later. This book is designed to lead you through the most helpful techniques to use in any forecasting effort. The examples we offer are, for the most

part, actual historical data much like the data you may encounter in your own forecasts. The techniques themselves are explained as procedures that you may replicate with your own data.

Because most forecasting methods are now computer-assisted, we have chosen to "key" the text to SORITEC, a powerful statistics software package capable of performing the techniques described. SORITEC is used by many firms and government agencies to prepare forecasts for clients and for internal use. Among financial institutions using SORITEC are the World Bank, Chase Manhattan Bank, and Citibank. In government, the Central Intelligence Agency, the Federal Aviation Administration, the National Bureau of Economic Research, and the Joint Economic Committee all use SORITEC. Private firms using SORITEC include E. I. du Pont, General Motors, Hallmark Cards, and Intelsat. A more representative list of users of the SORITEC software can be found following this preface.

Those who use *Business Forecasting* receive a free copy of the SORITEC Sampler packaged with the text. This package is a special version of SORITEC's commercial package, modified for use with this text. It includes the data sets that appear in the book, as well as representative command files used to produce the examples in the text. This special version of SORITEC is a powerful package that can actually be used for real-world forecasting; the Sampler does not, however, include the powerful scripting and report-generation facilities of the full SORITEC package.

The authors would like to thank the students at the University of Notre Dame and Central Michigan University for their help in working with materials included in this book. Their comments were invaluable in preparing clear expositions and meaningful examples for this second edition. The final product owes a great debt to the inspiration and comments of our colleagues, Professor Edward Trubac of the University of Notre Dame and Professor Thomas Bundt of the University of Portland.

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