Record Nr.	UNISA996210535703316
Autore	Evans Michael K
Titolo	Practical business forecasting [[electronic resource] /] / Michael K. Evans
Pubbl/distr/stampa	Malden, MA, : Blackwell Publishers, 2002
ISBN	1-280-19755-2 9786610197552 0-470-70269-9 0-470-75562-8 1-4051-3780-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (xx, 501 p.) : ill
Disciplina	658.40355 Business forecasting
	Management Theory Management Business & Economics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro Practical Business Forecasting Contents Acknowledgments Preface Part I Chapter 1: Choosing the Right Type of Forecasting Model Introduction 1.1 Statistics, Econometrics, and Forecasting 1.2 The Concept of Forecasting Accuracy: Compared to What? 1.2.1 Structural Shifts in Parameters 1.2.2 Model Misspecification 1.2.3 Missing, Smoothed, Preliminary, or Inaccurate Data 1.2.4 Changing Expectations by Economic Agents 1.2.5 Policy Shifts 1.2.6 Unexpected Changes in Exogenous Variables 1.2.7 Incorrect Assumptions About Exogeneity 1.2.8 Error Buildup in Multi-Period Forecasts 1.3 Alternative Types of Forecasts 1.3.1 Point or Interval 1.3.2 Absolute or Conditional 1.3.3 Alternative Scenarios Weighed by Probabilities

1.

Equations -- Problems and Questions -- Chapter 2: Useful Tools for Practical Business Forecasting -- Introduction -- 2.1 Types and Sources of Data -- 2.1.1 Time-Series, Cross-Section, and Panel Data -- 2.1.2 Basic Sources of US Government Data -- 2.1.3 Major Sources of International Government Data -- 2.1.4 Principal Sources of Key Private Sector Data -- 2.2 Collecting Data from the Internet -- 2.3 Forecasting Under Uncertainty -- 2.4 Mean and Variance -- 2.5 Goodness-of-Fit Statistics -- 2.5.1 Covariance and Correlation Coefficients -- 2.5.2 Standard Errors and t-ratios -- 2.5.3 F-ratios and Adjusted R-Squared -- 2.6 Using the Eviews Statistical Package -- 2.7 Utilizing Graphs and Charts -- 2.8 Checklist Before Analyzing Data -- 2.8.1 Adjusting for Seasonal Factors -- 2.8.2 Checking for Outlying Values -- 2.9 Using Logarithms and Elasticities -- Problems and Questions. Part II -- Chapter 3: The General Linear Regression Model --Introduction -- 3.1 The General Linear Model -- 3.1.1 The Bivariate Case -- 3.1.2 Desirable Properties of Estimators -- 3.1.3 Expanding to the Multivariate Case -- 3.2 Uses and Misuses of R⁻2 -- 3.2.1 Differences Between R2 and R⁻2 -- 3.2.2 Pitfalls in Trying to Maximize R⁻2 -- 3.2.3 An Example: The Simple Consumption Function -- 3.3 Measuring and Understanding Partial Correlation -- 3.3.1 Covariance and The Correlation Matrix -- 3.3.2 Partial Correlation Coefficients --3.3.3 Pitfalls of Stepwise Regression -- 3.4 Testing and Adjusting for Autocorrelation -- 3.4.1 Why Autocorrelation Occurs and What It Means -- 3.4.2 Durbin-watson Statistic to Measure Autocorrelation -- 3.4.3 Autocorrelation Adjustments: Cochrane...orcutt and Hildreth...lu --3.4.4 Higher-order Autocorrelation -- 3.4.5 Overstatement of t-ratios when Autocorrelation Is Present -- 3.4.6 Pitfalls of Using The Lagged Dependent Variable -- 3.5 Testing and Adjusting for Heteroscedasticity -- 3.5.1 Causes of Heteroscedasticity in Cross-Section and Time-Series Data -- 3.5.2 Measuring and Testing for Heteroscedasticity -- 3.6 Getting Started: An Example in Eviews -- Case Study 1: Predicting Retail Sales for Hardware Stores -- Case Study 2: German Short-term Interest Rates -- Case Study 3: Lumber Prices -- Problems and Questions --Chapter 4: Additional Topics For Single-equation Regression Models --Introduction -- 4.1 Problems Caused By Multicollinearity -- 4.2 Eliminating or Reducing Spurious Trends -- Case Study 4: Demand for Airline Travel -- 4.2.1 Log-linear Transformation -- 4.2.2 Percentage First Differences -- 4.2.3 Ratios -- 4.2.4 Deviations Around Trends --4.2.5 Weighted Least Squares -- 4.2.6 Summary and Comparison of Methods -- 4.3 Distributed Lags -- 4.3.1 General Discussion of Distributed Lags.

4.3.2 Polynomial Distributed Lags -- 4.3.3 General Guidelines for Using PDLs -- 4.4 Treatment of Outliers and Issues of Data Adequacy --4.4.1 Outliers -- 4.4.2 Missing Observations -- 4.4.3 General Comments on Data Adequacy -- 4.5 Uses and Misuses of Dummy Variables -- 4.5.1 Single-Event Dummy Variables -- 4.5.2 Changes in Dummy Variables for Institutional Structure -- 4.5.3 Changes in Slope Coefficients -- 4.6 Nonlinear Regressions -- 4.6.1 Log-linear Equations -- 4.6.2 Quadratic and Other Powers, Including Inverse --4.6.3 Ceiling, Floors, and Kronecker Deltas: Linearizing with Dummy Variables -- 4.7 General Steps for Formulating a Multivariate Regression Equation -- Case Study 5: The Consumption Function --Case Study 6: Capital Spending -- Problems and Questions -- Chapter 5: Forecasting with a Single-Equation Regression Model -- Introduction -- 5.1 Checking for Normally Distributed Residuals -- 5.1.1 Higherorder Tests for Autocorrelation -- 5.1.2 Tests for Heteroscedasticity --5.2 Testing for Equation Stability and Robustness -- 5.2.1 Chow Test for Equation Stability -- 5.2.2 Ramsey Reset Test to Detect

Misspecification -- 5.2.3 Recursive Least Squares - Testing Outside The Sample Period -- 5.2.4 Additional Comments on Multicollinearity -- Case Study 7: Demand for Motor Vehicles -- 5.3 Evaluating Forecast Accuracy -- 5.4 The Effect of Forecasting Errors in the Independent Variables -- Case Study 8: Housing Starts -- 5.5 Comparison With Naive Models -- 5.5.1 Same Level or Percentage Change -- 5.5.2 Naive Models using Lagged Values of the Dependent Variables -- 5.6 Buildup of Forecast Error Outside the Sample Period -- 5.6.1 Increased Distance from the Mean Value -- 5.6.2 Unknown Values of Independent Variables -- 5.6.3 Error Buildup in Multi-Period Forecasting -- Case Study 9: The Yen/Dollar Cross-Rate -- Problems and Questions -- Part III.

Chapter 6: Elements of Univariate Time-Series Methods -- Introduction -- 6.1 The Basic Time-Series Decomposition Model -- Case Study 10: General Merchandise Sales -- 6.1.1 Identifying the Trend -- 6.1.2 Measuring the Seasonal Factor -- 6.1.3 Separating the Cyclical and Irregular Components -- 6.2 Linear and Nonlinear Trends -- 6.3 Methods of Smoothing Data -- 6.3.1 Arithmetic Moving Averages --6.3.2 Exponential Moving Averages -- 6.3.3 Holt-winters Method for Exponential Smoothing -- 6.3.4 Hodrick-prescott Filter -- 6.4 Methods of Seasonal Adjustment -- 6.4.1 Arithmetic and Multiplicative Fixed Weights -- 6.4.2 Variable Weights -- 6.4.3 Treatment of Outlying Observations -- 6.4.4 Seasonal Adjustment Factors With the Census Bureau X-11 Program -- Case Study 11: Manufacturing Inventory Stocks for Textile Mill Products -- Case Study 12: Seasonally Adjusted Gasoline Prices -- Problems and Questions -- Chapter 7: Univariate Time-Series Modeling and Forecasting -- Introduction -- 7.1 The Boxjenkins Approach to Non-Structural Models -- 7.2 Estimating Arma Models -- 7.2.1 First-Order Autoregressive Models - AR(1) -- 7.2.2 Ar (2) Models -- 7.2.3 Ar(N) Models -- 7.2.4 Moving-Average (Ma) Models -- 7.2.5 ARMA Procedures -- 7.3 Stationary and Integrated Series --7.4 Identification -- 7.5 Seasonal Factors in ARMA Modeling -- 7.6 Estimation of ARMA Models -- 7.7 Diagnostic Checking and Forecasting -- Case Study 13: New Orders for Machine Tools -- Case Study 14: Inventory/Sales (I/S) Ratio for Sic 37 (Transportation Equipment) -- Case Study 15: Non-Farm Payroll Employment --Summary -- Problems and Questions -- Part IV -- Chapter 8: Combining Forecasts -- Introduction -- 8.1 Outline of the Theory of Forecast Combination -- 8.2 Major Sources of Forecast Error -- 8.3 Combining Methods of Non-Structural Estimation. 8.4 Combining Structural and Non-Structural Methods -- Case Study 16: Purchases of Consumer Durables -- 8.5 The Role of Judgment in Forecasting -- 8.5.1 Surveys of Sentiment and Buying Plans -- 8.5.2 Sentiment Index for Prospective Home Buyers -- 8.6 The Role of Consensus Forecasts -- Case Study 17: Predicting Interest Rates by Combining Structural and Consensus Forecasts -- 8.7 Adjusting Constant Terms and Slope Coefficients -- 8.7.1 Advantages and Pitfalls of Adjusting the Constant Term -- 8.7.2 Estimating Shifting Parameters -- 8.8 Combining Forecasts: Summary -- Case Study 18: Improving the Forecasting Record for Inflation -- Summary -- Problems and Questions -- Chapter 9: Building and Presenting Short-Term Sales Forecasting Models -- Introduction -- 9.1 Organizing the Sales Forecasting Procedure -- 9.2 Endogenous and Exogenous Variables in Sales Forecasting -- 9.2.1 Macroeconomic Variables -- 9.2.2 Variables Controlled by the Firm -- 9.2.3 Variable Reflecting Competitive Response -- 9.3 The Role of Judgment -- 9.3.1 Deflecting Excess Optimism -- 9.3.2 The Importance of Accurate Macroeconomic Forecasts -- 9.3.3 Assessing Judgmental Inputs -- 9.4 Presenting Sales

	 Forecasts 9.4.1 Purchases of Construction Equipment 9.4.2 Retail Furniture Sales Case Study 19: The Demand for Bicycles Case Study 20: New Orders for Machine Tools Case Study 21: Purchases of Farm Equipment Problems and Questions Chapter 10: Methods of Long-term Forecasting Introduction 10.1 Non-Parametric Methods of Long-term Forecasting 10.1.1 Survey Methods 10.1.2 Analogy and Precursor Methods 10.1.3 Scenario Analysis 10.1.4 Delphi Analysis 10.2 Statistical Methods of Determining Nonlinear Trends: Nonlinear Growth and Decline, Logistics, and Saturation Curves 10.2.1 Nonlinear Growth and Decline Curves 10.2.2 Logistics Curves (s-Curves). 10.2.3 Saturation Curves.
Sommario/riassunto	Stressing the concrete applications of economic forecasting, Practical Business Forecasting is accessible to a wide-range of readers, requiring only a familiarity with basic statistics. The text focuses on the use of models in forecasting, explaining how to build practical forecasting models that produce optimal results. In a clear and detailed format, the text covers estimating and forecasting with single and multi- equation models, univariate time-series modeling, and determining forecasting accuracy. Additionally, case studies throughout the book illustrate how the models are actually estimated and adjusted to generate accurate forecasts. After reading this text, students and readers should have a clearer idea of the reasoning and choices involved in building models, and a deeper foundation in estimating econometric models used in practical business forecasting.