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	Nota di contenuto	Cover ; Half-Tile ; Title ; Contents; List of Figures; List of Tables; Preface; Acknowledgments; 1 Synopsis of Selected EnergyMarkets and Structures; 1.1 Challenges of modeling in energy markets; 1.1.1 High volatilities/jumps; 1.1.2 Small samples; 1.1.3 Structural change; 1.1.4 Physical/operational constraints; 1.2 Characteristic structured products; 1.2.1 Tolling arrangements; 1.2.2 Gas transport; 1.2.3 Gas storage; 1.2.4 Load serving; 1.3 Prelude to robust valuation; 2 Data Analysis and StatisticalIssues; 2.1 Stationary vs. non-stationary processes; 2.1.1 Concepts
		2.1.2 Basic discrete time models: AR and VAR2.2 Variance scaling laws and volatilityaccumulation33; 2.2.1 The role of fundamentals and exogenous drivers; 2.2.2 Time scales and robust estimation; 2.2.3 Jumps and estimation issues; 2.2.4 Spot prices; 2.2.5 Forward prices; 2.2.6 Demand side: temperature; 2.2.7 Supply side: heat rates,

Sommario/riassunto	Commodity markets present several challenges for quantitative modeling. These include high volatilities, small sample data sets, and physical, operational complexity. In addition, the set of traded products in commodity markets is more limited than in financial or equity markets, making value extraction through trading more difficult. These facts make it very easy for modeling efforts to run into serious problems, as many models are very sensitive to noise and hence can easily fail in practice. Modeling and Valuation of Energy Structures is a comprehensive guide to quantitative and statistical approaches that have been successfully employed in support of trading operations, reflecting the author's 17 years of experience as a front-office 'quant'. The major theme of the book is that simpler is usually better, a message that is drawn out through the reality of incomplete markets, small samples, and informational constraints. The necessary mathematical tools for understanding these issues are thoroughly developed, with many techniques (analytical, econometric, and numerical) collected in a single volume for the first time. A particular emphasis is placed on the central role that the underlying market resolution plays in valuation. Examples are provided to illustrate that robust, approximate valuations are to be preferred to overly ambitious attempts at detailed qualitative modeling.