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Capital market finance. An introduction to primitive assets, derivatives, portfolio management and risk (to appear). (English) [Zbl 07395528]


Preliminary review / Publisher’s description: This book offers a comprehensive and coherent presentation of almost all aspects of Capital Market Finance, providing hands-on knowledge of advanced tools from mathematical finance in a practical setting. Filling the gap between traditional finance textbooks, which tend to avoid advanced mathematical techniques used by professionals, and books in mathematical finance, which are often more focused on mathematical refinements than on practical uses, this book employs advanced mathematical techniques to cover a broad range of key topics in capital markets. In particular, it covers all primitive assets (equities, interest and exchange rates, indices, bank loans), most vanilla and exotic derivatives (swaps, futures, options, hybrids and credit derivatives), portfolio theory and management, and risk assessment and hedging of individual positions as well as portfolios. Throughout, the authors emphasize the methodological aspects and probabilistic foundations of financial asset valuation, risk assessment and measurement. Background in financial mathematics, particularly stochastic calculus, is provided as needed, and over 200 fully worked numerical examples illustrate the theory.

Based on the authors’ renown master’s degree courses, this book is written for students in business and finance, as well as practitioners in quantitative finance. Apart from an undergraduate-level knowledge of calculus, linear algebra and probability, the book is self-contained with no prior knowledge of market finance required.

MSC:

91-01 Introductory exposition (textbooks, tutorial papers, etc.) pertaining to game theory, economics, and finance
91G15 Financial markets
91G10 Portfolio theory
91G20 Derivative securities (option pricing, hedging, etc.)
91G30 Interest rates, asset pricing, etc. (stochastic models)
91G40 Credit risk

Full Text: DOI