

Financial Derivatives & Risk Management

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**Financial Derivatives
&
Risk Management**

FINANCIAL DERIVATIVES & RISK MANAGEMENT

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PREFACE

The world of finance has become increasingly complex, with new financial instruments and strategies constantly emerging. In this ever-evolving landscape, effective risk management has become paramount for the survival and success of financial institutions and individual investors alike. Derivatives, once viewed as exotic and niche products, have now taken center stage as indispensable tools for mitigating risks and optimizing portfolios. This book, “Financial Risk Management & Derivatives,” is a comprehensive guide that delves into the intricate realm of risk management and the pivotal role derivatives play in modern finance. Drawing upon years of academic and practical experience, we aim to provide a holistic understanding of the multifaceted risks faced by financial institutions, along with a deep exploration of the mechanics, valuation, and trading of various derivative instruments. We begin by laying a solid foundation, introducing the concept of risk management and its critical importance in the financial sector. We then embark on a journey through the different types of risks, including interest rate risk, credit risk, liquidity risk, market risk, technological risk, and off-balance sheet risks. Each chapter meticulously dissects these risks, offering insights into their identification, measurement, and management techniques, equipping readers with the necessary tools to navigate the intricate world of risk mitigation. As we delve deeper, we shift our focus to the realm of derivatives, unveiling their evolution, characteristics, and the crucial role they play in risk management and price discovery. We explore the mechanics of forward and futures contracts, unraveling their pricing methodologies, margin concepts, and applications in hedging strategies.

Options and swaps, two powerful derivatives instruments, are comprehensively examined, with detailed discussions on valuation techniques, pricing models, and the underlying assumptions. We introduce readers to the Black-Scholes model, the binomial model, and other essential frameworks, empowering them to navigate the complexities of these instruments with confidence. The book also provides a comprehensive overview of the derivatives market and trading mechanisms in India, tracing its historical background, regulatory framework, and future outlook. We explore the importance of trading mechanisms, their types, characteristics, and their impact on market dynamics, ensuring a well-rounded understanding of the derivatives ecosystem. Moreover, we dedicate a significant portion of the book to risk management in derivatives trading, exploring the reasons for managing derivatives risk, key risk factors, and strategies for mitigating these risks. We also introduce readers to various trading systems, regulatory frameworks, and compliance requirements, ensuring a comprehensive grasp of the subject matter. Throughout this book, we strike a harmonious balance between theoretical concepts and

practical applications, drawing upon real-world examples and case studies to illustrate the principles and techniques discussed. Whether you are a student seeking to deepen your knowledge, a professional striving to enhance your risk management strategies, or a researcher exploring the intricacies of derivatives, this book aims to be an indispensable guide on your journey through the dynamic world of financial risk management and derivatives.

With a wealth of knowledge and experience, we invite you to embark on this captivating exploration of risk management and derivatives, equipping yourself with the tools and insights necessary to navigate the ever-changing financial landscape with confidence and success.

Prof. (Dr.) Kishor Kumar Das

Dr. Aditya Prasad Sahoo

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Snapshot of The Book

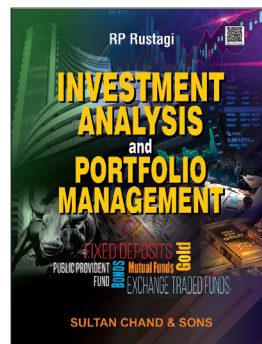
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UNIT I – Introduction to Risk Management								
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Investment Analysis and Portfolio Management

R.P. Rustagi

About the Book

Investment Analysis and Portfolio Management has been prepared to meet the requirements of students taking M.Com., MBA, CFA, PGDBM and other courses in Finance. The scope of investment decision making is widening as new concepts and financial products are appearing on the horizon. The book attempts to comprehend the developments taking place in the area of investment analysis. It aims to present the intricate and complex tools and techniques of investment management in a simplified way. Numerical examples and illustrations have been used extensively to explain the application of different concepts. The book is equally useful for the investment researchers, investment practitioners and all types of investors.



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- Important points, concepts and definitions given in the Side Boxes.
- Extensive use of charts, graphs and diagrams.

Contents

Part I: Investment Environment

- Understanding Investment
- Financial Markets, Participants and Instruments.

Part II: Indian Capital Market

- Securities Market in India: Structure and Trading
- Mutual Funds.

Part III: Fixed Interest Securities

- Bond Fundamentals
- Bond Valuation and Management.

Part IV: Equity Shares: Analysis and Valuation

- Fundamental Analysis: E-I-C Approach
- Technical Analysis and Market Efficiency
- Valuation of Equity Shares.

Part V: Risk-Return Relationship and Portfolio Management

- Risk-Return Analysis in Investment
- Portfolio Theory: Portfolio Selection and Management

- Capital Assets Pricing Model, Arbitrage Pricing Theory and Portfolio Evaluation.

Part VI: Derivatives and Risk Management

- Financial Derivatives: Forwards and Futures
- Options : Strategies and Valuation
- Swaps and Credit Derivatives.

Part VII: Changing Structure of Indian Capital Market

- Indian Capital Market: Emerging Trends
- Investors’ Protection, Unfair Trade Practices and Insider Trading.

Part VIII: Miscellaneous Topics

- Structured Debt, Securitization and Assets
- Backed Securities.
- Investment in Real Assets.

Appendices – Glossary • Bibliography • Compounded Value Tables, Present Value Tables and Standard Area Table.

About the Book

Financial Derivatives & Risk Management offers a comprehensive exploration of modern financial risks and the pivotal role of derivatives in mitigating them. Designed for students, professionals, and researchers, this book bridges theory and practice, covering interest rate, credit, liquidity, market, and technological risks. It demystifies derivatives – forwards, futures, options, swaps – through valuation models like Black-Scholes and binomial frameworks. Real-world examples, case studies, and a dedicated focus on India's regulatory landscape enrich the content, equipping readers to navigate risk management complexities and leverage derivatives effectively in dynamic markets.

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