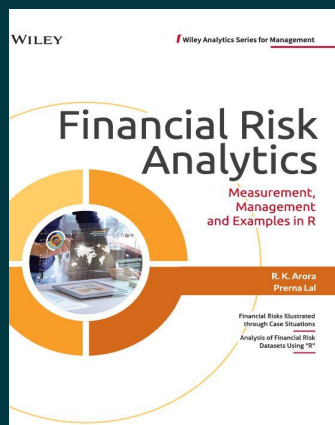




Financial Risk Analytics: Measurement, Management and Examples in R

By R. K. Arora, Prerna Lal

Paperback

9789354642135

[NOT PROVIDED]
publication_date

₹999.00

Pages : [NOT PROVIDED] pages pages

Description

The book is of particular use for risk managers working in the banking industry. Banks are required by the Basel guidelines to have sufficient risk capital to cover the potential losses that they face. Banks can either use the norms prescribed by the Basel guidelines or their own risk models to measure different financial risks in order to estimate the risk capital requirement. The book can be extremely helpful to banks in performing these tasks.

About the Author

R. K. Arora, Prerna Lal

Ravinder Kumar Arora is Professor of Finance and Accounting at International Management Institute, New Delhi. He is also a fellow member of the Institute of Cost Accountants of India and the Institute of Company Secretaries of India. Dr. Arora has around 23 years of experience in teaching Managerial Accounting, Corporate Finance, Project Finance, Risk Management, Cost Management, Management Control Systems

Table of Contents

Praise for the Book

Preface

Features of the Book

About the Authors

Chapter 1 Role of Analytics in Risk Management

1.1 Introduction

1.2 Role of Data in Analytics

1.3 Types of Data Analytics

1.4 Use of “R” for Analytics

1.5 Challenges in Use of Data Analytics

1.6 Risk Analytics

1.7 Steps in Risk Analytics

1.8 Benefits of Risk Analytics

1.9 Financial Risk Analytics 1

1.10 Current State of Financial Risk Analytics

1.11 Future of Financial Risk Analytics

1.12 Job Role of a Financial Risk Analyst and the Required Skills

Chapter 2 Introduction To Financial Risk Management

2.1 Introduction

2.2 Risk Management

2.3 Benefits of Risk Management

2.4 Types of Risks

2.4.1 Examples of Business Risks

2.4.2 Non-business Risks

2.5 Financial Markets

2.6 Types of Financial Risks

2.7 Market Risk

2.8 Credit/Counterparty Risk

2.9 Operational Risk

2.10 Model Risk

2.11 Risk and Risk Factors

2.12 Financial Risk Management

2.13 Steps in the Risk Management Process

Part I Market Risk

Chapter 3 Sensitivity Measures of Market Risk

3.1 Introduction

3.2 Sensitivity Measures of Market Risk

Chapter 4 Volatility and Correlation Measures of Market Risk

4.1 Introduction

4.2 Estimation of Volatility

4.3 Standard Approach

4.4 Weighting Schemes

4.5 The ARCH Model

4.6 The EWMA Model

4.7 GARCH (1,1) Model

4.8 Forecasting Future Volatility for Option Pricing

4.9 Component GARCH Model

4.10 Asymmetric Volatility

4.11 Implied Volatilities

4.12 Volatility Indices

4.13 Predicting Correlations

Chapter 5 Value at Risk and Expected Shortfall

5.1 Introduction

5.2 Value at Risk

- 5.3 Expected Shortfall (ES)
- 5.4 Choice of VaR Parameters
- 5.5 Aggregation of VaR and ES
- 5.6 Calculating VaR
- 5.7 Parametric and Nonparametric VaR
- 5.8 HS Approach
- 5.9 Monte Carlo Simulation Approach
- 5.10 Parametric VaR
- 5.11 VaR for Non-normal Distributions
- 5.12 Parametric Versus Nonparametric VaR
- 5.13 Marginal VaR
- 5.14 Component VaR
- 5.15 Back Testing
- 5.16 Stress Testing
- 5.17 Risk Metrics

Chapter 6 Management of Market Risk

- 6.1 Introduction
- 6.2 Portfolio Diversification
- 6.3 Hedging
- 6.4 Insurance-Type Contracts
- 6.5 Portfolio Insurance
- 6.6 Internal Hedges
- 6.7 Basel Guidelines

Part II Credit Risk

Chapter 7 Estimating Default and Migration Probabilities

- 7.1 Introduction
- 7.2 Credit Risk VaR
- 7.3 Measuring Probability of Default
- 7.4 Migration Probabilities
- 7.5 Basel Guidelines

Chapter 8 Credit Value at Risk

- 8.1 Introduction
- 8.2 Exposure at Default
- 8.3 Loss Given Default
- 8.4 Credit Risk Correlations
- 8.5 Expected and Unexpected Loss
- 8.6 Credit Risk Models

Chapter 9 Management of Credit Risk

- 9.1 Introduction
- 9.2 Marking-to-Market
- 9.3 Netting
- 9.4 Collateralization
- 9.5 Downgrade Triggers
- 9.6 Loan Syndication
- 9.7 Guarantees and Letters of Credit
- 9.8 Credit Rationing
- 9.9 Debt Covenants
- 9.10 Monitoring
- 9.11 Put Options
- 9.12 Credit Derivatives
- 9.13 Credit Insurance
- 9.14 Securitization
- 9.15 Basel Guidelines

Part III Other Financial Risk

Chapter 10 Operational Risk

- 10.1 Introduction
- 10.2 Types of Operational Risk Losses
- 10.3 Measurement of Operational Risk
- 10.4 Managing Operational Risk
- 10.5 Basel Guidelines

Chapter 11 Liquidity Risk

- 11.1 Introduction
- 11.2 Types of Liquidity Risk
- 11.3 Funding Liquidity Risk
- 11.4 Managing Liquidity Risk
- 11.5 Liquidity Black Holes
- 11.6 Basel III Regulations

Chapter 12 Model Risk

- 12.1 Introduction
- 12.2 Models for Pricing Standard Products
- 12.3 Models for Non-standard Products
- 12.4 Sources of Model Risk
- 12.5 Quantifying Model Risk
- 12.6 Managing Model Risk
- 12.7 Regulatory Requirement
- 12.8 Model Development

12.9 Model Validation

Part IV Other Topics

Chapter 13 Asset Liability Management

13.1 Introduction

13.2 Objectives of ALM

13.3 Interest Rate Risk

13.4 Liquidity Funding Risk

13.5 Organization of the ALM Function

13.6 Reserve Bank of India Guidelines on ALM by Indian Banks

Chapter 14 Enterprise Risk Management

14.1 Introduction

14.2 Economic Capital

14.3 Risk Appetite

14.4 Risk Culture

14.5 Top-down Approach

14.6 Bottom-up Approach

14.7 Risk Allocation

14.8 Risk-Adjusted Performance Measurement

14.9 Risk-Based Pricing

Chapter 15 Financial Innovation

15.1 Introduction

15.2 Important Financial Innovations

15.3 Role of Finance Theories and Models in Stimulating Financial Innovation

15.4 Factors that Motivate Financial Innovation

15.5 Diffusion of Financial Innovations

15.6 Classification and Functions of the Financial Innovations

15.7 Implications of Innovations on Financial Markets

15.8 The Future of Financial Innovation

Part V Appendices

Appendix A Sovereign Risk and Financial Crisis

A.1 Introduction

A.2 Sovereign Risk

A.3 Credit Crisis 2007

A.4 Flash Crashes

Real-Life Examples

Appendix B Solvency II Guidelines

B.1 Introduction

B.2 Objectives of Solvency II

B.3 Applicability

B.4 Pillars

Appendix C Introduction to Probability Theory

C.1 Probability

C.2 Properties of Probability

C.3 Characteristics of Probability Distributions

Appendix D Introduction to Financial Derivatives

D.1 Derivative

D.2 Types of Derivative Contracts

D.3 Put-Call Parity Theorem

Index

To purchase this product, please visit:

<https://wiley.indiafin.com/financial-risk-analytics-measurement-management-and-examples-in-r.html>



Scan to buy