

THE HANDBOOK OF CREDIT PORTFOLIO MANAGEMENT

GREG N. GREGORIOU
CHRISTIAN HOPPE

EDITORS



New York Chicago San Francisco
Lisbon London Madrid Mexico City
Milan New Delhi San Juan Seoul
Singapore Sydney Toronto

C O N T E N T S

FOREWORD xiii
EDITORS xvii
CONTRIBUTORS xix

PART ONE

PERFORMANCE MEASUREMENT

Chapter 1

Implementing Credit Portfolio Management 3

Thomas Ridder

Introduction 3
The Levers of Credit Portfolio Management 5
Organization of Credit Portfolio Management 9
Quantitative Methods in Credit Portfolio Management 14
Conclusion 17
References 18

Chapter 2

Credit Portfolio Management: Accounting Implications 21

Christian Burmester

Introduction 22
International Financial Reporting Standards 23
Conclusion 36
Acknowledgments 37

Chapter 3

The New Basel Capital Framework (Basel II) and Its Impact on Investment Decisions: An Overview 39

Martin Knocinski

Introduction 40

The Basel Accord's General Principles	40
Selected Amendments in Basel II	43
Regulatory Treatment of Shares in a Fund according to Basel II	56
Outstanding Issues	60
Relevant Developments within Other Fields and Conclusion	62
References	64

Chapter 4

Basel II Expected Loss as a Control Parameter 67

Bernd Appasamy and Uwe Dörr

Introduction	67
Discussion: Use of EL in Risk Management	68
Summary and Outlook	77

Chapter 5

Credit Risk Capital Allocation and Performance Measurement in Banking Institutions 79

Valerio Potì

Introduction	79
Credit Risk Capital	82
Capital Allocation, Cost of Capital, and Performance Measurement	85
Credit Risk Capital Measurement	87
Final Remarks and Directions for Future Research	90
Acknowledgments	91
References	92

PART TWO

EVALUATION OF CREDIT RISK

Chapter 6

Characteristics of Credit Assets and Their Relevance for Credit Asset Management 99

Stephan Bucher and Jochen von Frowein

Introduction	99
Credit Types	101

Credit Purpose	111
Conclusion	121
References	122

Chapter 7

Default Dependency Modeling: An Introduction to Theory and Application 123*Sabine Bank and Mathias Schwarz*

Introduction: Default Dependency	124
Modeling Default Dependencies	125
Measuring Credit Risk of CDOs	135
Conclusion	142
References	143

Chapter 8

A Credit Contagion Model for the Dynamics of the Rating Transitions in a Small- and Medium-Sized Enterprises Bank Loan Portfolio 145*Antonella Basso and Riccardo Gusso*

Introduction	146
Counterparty Risk and Credit Contagion Models	147
Modeling Credit Contagion and Rating Transitions in a Portfolio of Bank Loans	149
Simulation Analysis of Rating Transitions	152
Conclusion	160
References	160

Chapter 9

Copula-Based Credit Rating Model for Evaluating Basket Credit Derivatives 163*Nicolas Papageorgiou, Bruno Rémillard, and Jean-Luc Gardère*

Introduction	163
Literature Review	164
The Proposed Model	167
Calibration of the Parameters	170
Estimation Results	173

Pricing Multiname Credit Derivatives	176
Conclusion	179
References	180

Chapter 10**Mark-to-Market Valuation of Illiquid Loans 181***Claas Becker*

Introduction	181
Building Liquid Generic Curves	182
Building Illiquid Generic Curves	183
The Loan Pricing Algorithm	189
Back Testing	192
Summary	193
References	193

PART THREE**MANAGING CREDIT EXPOSURE**

Chapter 11**A Holistic Approach to Risk Management of Credit Portfolios 197***Christian Burmester*

Introduction	197
Portfolio Management in the Context of a Bank's Management	198
Risk Management of Portfolios	199
Conclusion	208
References	208

Chapter 12**How a Revolution in the Loan Sale Process Transformed the Secondary Market and Portfolio Management 209***J. Kingsley Greenland II and William F. Looney*

Introduction	210
Evolution of the Secondary Whole Loan Market	211
Buyers: Smart, Savvy, and Global	211

Sellers: Originators of All Sizes Join In	212
How Buyers and Sellers Engage Online	214
Better Portfolio Diagnostics	218
Comparing the Two Approaches	220
Conclusion: It's a New Day for Portfolio Managers	222

Chapter 13

What Drives the Arrangement Timetable of Bank Loan Syndication? 223

Christophe J. Godlewski

Introduction	224
Determinants of Loan Syndication Timetable Arrangement	226
Methodology and Data	234
Results and Discussion	238
Conclusion	241
References	242

Chapter 14

Credit Default Swap and Other Credit Derivatives: Valuation and Application 247

Ralph Karels

Introduction	247
Valuation of Credit Derivatives with Several Underlyings	254
Possible Application and Market Outlook	266
Conclusion	267
References	268

Chapter 15

Loan-Only Credit Default Swaps 271

Moorad Choudhry

Introduction	272
Growth of LCDS	273
Characteristics of LCDS	274
Summary	275
Reference	276

Chapter 16

Definition and Evaluation of Basket Credit Derivatives and Single-Tranche Collateralized Debt Obligation Swaps 277*Marcus R. W. Martin, Stefan Reitz, and Carsten S. Wehn*

Introduction 278

Credit Derivatives on Baskets of Reference Assets 278

Evaluation of Basket Default Swaps and CDOs 283

Quotation by a Single-Factor Model 288

Recent Developments and Models for Evaluating STCDO and Basket Credit Derivatives 296

References 299

Chapter 17

Contingent Credit Portfolio Management: Converting Derivatives Credit Risk into Market 301*Kai Pohl*

Introduction 302

Determining the Credit Valuation Adjustment 302

Application of the CVA 307

Contingent Credit Portfolio Management 317

PART FOUR

CREDIT PORTFOLIO TRANSACTIONS**Chapter 18**

Strategies of Hedge Funds and Robust Bayesian Portfolio Allocation in Fixed-Income Markets 325*Roland Füss, Dieter G. Kaiser, and Michael Stein*

Introduction 326

Fixed-Income Hedge Fund Strategies 327

A Robust Bayesian Portfolio Optimization Approach 333

Fixed-Income Portfolio Allocation Including Hedge Fund Strategies 338

Conclusion 343

References 345

Chapter 19

Characterization of the iTraxx Indexes and the Role of Credit Index-Linked Constant Proportion Portfolio Insurances 349*Greg N. Gregoriou and Christian Hoppe*

Introduction 349

The iTraxx Index Family 351

Performance Measurement 356

Credit Index-Linked Constant Proportion Portfolio Insurance 361

Conclusion 365

References 366

Chapter 20

Trading the Credit Default Swap Basis: Illustrating Positive and Negative Basis Arbitrage Trades 369*Moorad Choudhry*

Introduction 370

Relative Value and Trading the Basis 370

Factors Influencing the Basis Package 372

Trade Examples 379

Summary 394

References 394

Chapter 21

Securitization of Shipping Loans 397*Christian Kasten and Torsten Seil*

Introduction 397

HSH Nordbank's Rationale for Securitizing Shipping Loans 398

Ocean Star Transaction Structure 398

Cash Flows 401

Loss Determination 402

Ocean Star Portfolio Risk Modeling and Rating Process 402

Investors 407

Conclusion 408

References 408

Chapter 22

How Cheap Is “Zero” Cost Protection? 409

*Panayiotis Teklos, Michael Sandigursky, Michael Hampden-Turner,
and Matt King*

- Introduction 410
Contract Mechanics 410
Constructing a Replicating Strategy 411
Major Risks and Sensitivity Analysis 413
Who Might Use It? 419
Conclusion 420

Chapter 23

Managing Country Risk 423

Nandita Reisinger-Chowdhury

- Introduction 423
Who Needs to Worry about Sovereign Risk? 424
Why Do We Need Country Risk Management? 424
Country Risk Assessment 426
Sovereign Ratings 437
Setting Country Limits 438
Country Risk Mitigation 439
Conclusion 440
References 441

Chapter 24

Distressed Credit Assets of German Lending Banks 443

Thomas C. Knecht and Michael Blatz

- Introduction 444
Conceptual Foundations of Workout Management 446
An Empirical Investigation of Workout Management 452
Conclusion 458
References 459

INDEX 461