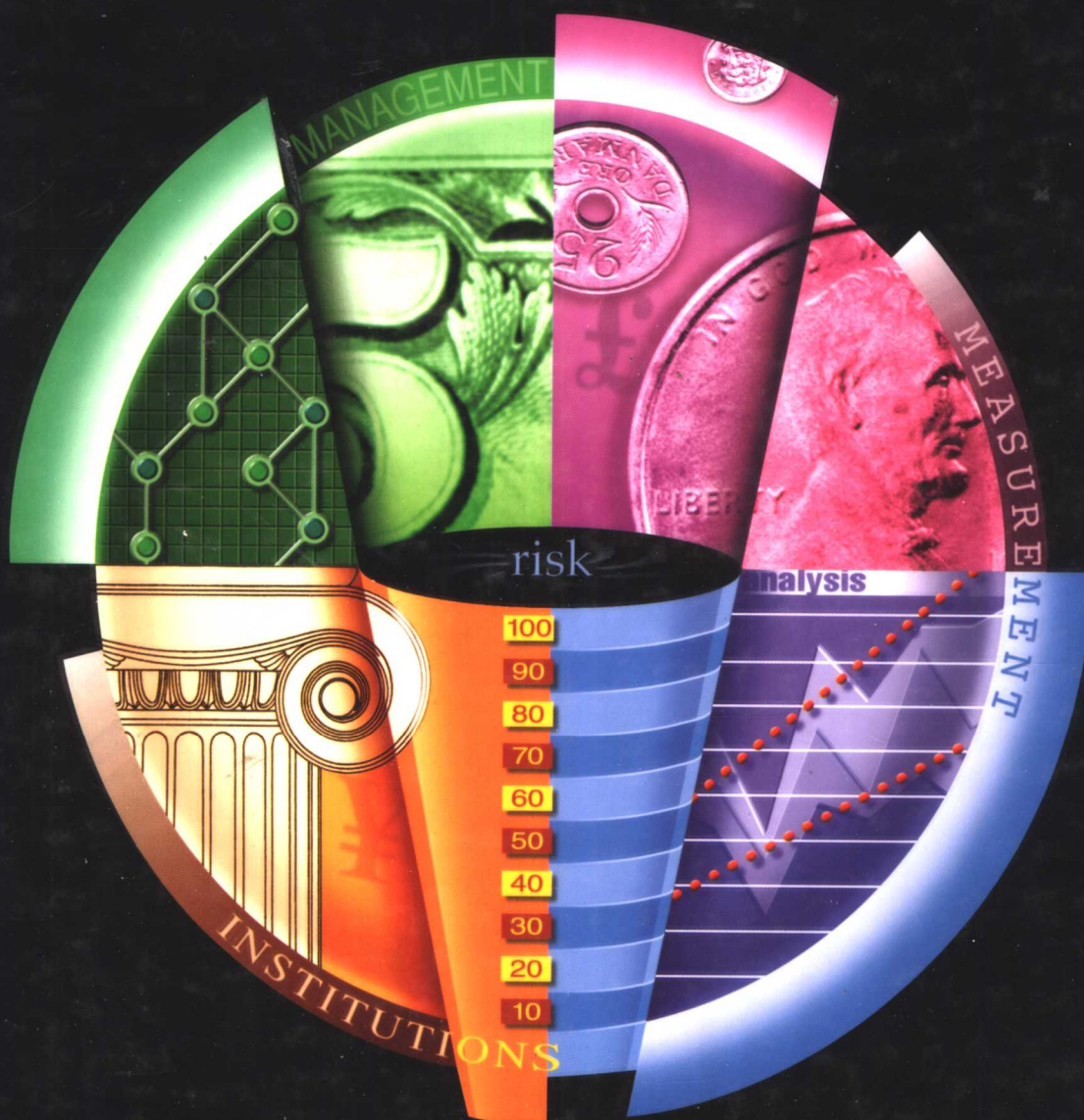


# Financial Institutions Management

a modern perspective

third edition



Anthony Saunders

THIRD EDITION

# FINANCIAL INSTITUTIONS MANAGEMENT

A Modern Perspective

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**Anthony Saunders**

*John M. Schiff Professor of Finance*

*Salomon Center*

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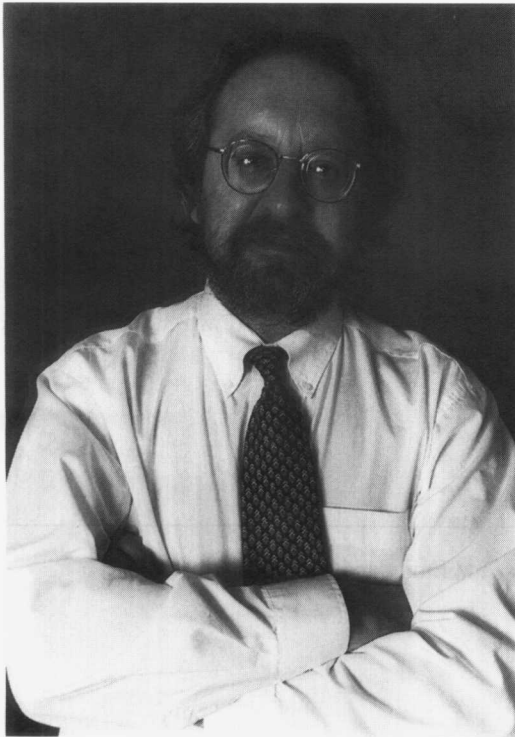
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# PREFACE

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The financial services industry continues to undergo dramatic changes. Not only are the boundaries between traditional industry sectors, such as commercial banking and investment banking, breaking down but competition is becoming increasingly global in nature. Indeed, the 1998 merger between Travelers and Citicorp to create the new Citigroup is just one example of the emergence of newly structured global financial intermediaries. Many forces are contributing to this breakdown in interindustry and intercountry barriers, including financial innovation, technology, taxation, and regulation. It is in this context that this book is written.

Although the traditional nature of each sector's product activity is analyzed, a greater emphasis is placed on *new* areas of activities such as asset securitization, off-balance-sheet banking, and international banking.

The third edition of this text takes the same innovative approach taken in the first two editions and focuses on managing return and risk in modern financial institutions (FIs). *Financial Institutions Management's* central theme is that the risks faced by FI managers and the methods and markets through which these risks are managed are becoming increasingly similar whether an institution is chartered as a commercial bank, a savings bank, an investment bank, or an insurance company.

As in any stockholder-owned corporation, the goal of FI managers should always be to maximize the value of the financial intermediary. However, pursuit of value maximization does not mean that risk management can be ignored.

Indeed, modern FIs are in the risk-management business. As we discuss in this book, in a world of perfect and frictionless capital markets, FIs would not exist and individuals would manage their own financial assets and portfolios. But since real-world financial markets are not perfect, FIs provide the positive function of bearing and managing risk on behalf of their customers through the pooling of risks and the sale of their services as risk specialists.

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## Intended Audience

*Financial Institutions Management: A Modern Perspective* is aimed at upper-level undergraduate and MBA audiences. Occasionally there are more technical sections that are marked with an asterisk (\*). *Sections highlighted with an \* may be included or dropped from the chapter reading, depending on the rigor of the course, without harming the continuity of the chapters.*

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## Main Features

Throughout the text, special features have been integrated to encourage students' interaction with the text and to aid them in absorbing the material. Some of these features include:

- **Chapter-opening outlines**, which offer students a snapshot view of what they can expect to learn from each chapter discussion.
- **Bold key terms and marginal glossary**, which emphasize the main terms and concepts throughout the chapter. They emphasize the most important terms and aid in studying.
- **Concept questions**, which allow students to test themselves on the main concepts within each major chapter section.
- **Professional Perspectives boxes**, which feature financial practitioners and how they apply some of the topics throughout the text.
- **Contemporary Perspectives boxes**, which demonstrate the application of chapter material in real current events.
- **Integrative problem material**, which covers all the main topics within the chapter.

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## Organization

Since our focus is on return and risk and the sources of that return and risk, this book relates ways in which the managers of modern FIs can expand return with a managed level of risk to achieve the best, or most favorable, return-risk outcome for FI owners.

Chapters 1 to 5 provide an overview describing the key balance sheet and regulatory features of the major sectors of the U.S. financial services industry. We discuss depository institutions in Chapter 1, insurance institutions in Chapter 2, securities firms and investment banks in Chapter 3, mutual funds in Chapter 4, and finance companies in Chapter 5. Chapter 6 takes an analytical look at how financial intermediation benefits today's economy.

In Chapter 7 we start the risk-measurement section with an overview of the risks facing a modern FI. In Chapters 8 and 9 we investigate the net interest margin as a source of profitability and risk, with a focus on the effects of interest rate volatility and the mismatching of asset and liability durations on FI risk exposure. In Chapter 10 we analyze market risk, a risk that results when FIs actively trade bonds, equities, and foreign currencies.

In Chapter 11 we look at the measurement of credit risk on individual loans and bonds and how this risk adversely impacts an FI's profits through losses and provisions against the loan and debt security portfolio. In Chapter 12 we look at the risk of loan (asset) portfolios and the effects of loan concentrations on risk exposure. Modern FIs do more than generate returns and bear risk through traditional maturity mismatching and credit extensions. They also are increasingly engaging in off-balance-sheet activities to generate fee income (Chapter 13), making technological investments to reduce costs (Chapter 14), pursuing foreign exchange activities and overseas financial investments (Chapter 15), and engaging in sovereign lending and securities activities (Chapter 16). Each of these has implications for the size and variability of an FI's profit and/or revenues. In addition, as a by-product of the provision of their interest rate and credit intermediation services, FIs face liquidity risk. We analyze the special nature of this risk in Chapter 17.

In Chapter 18 we begin the risk-management section by looking at ways in which FIs can insulate themselves from liquidity risk. In Chapter 19 we look at the key role deposit insurance and other guaranty schemes play in reducing liquidity risk. At the core of FI risk insulation is the size and adequacy of the owners' capital stake, which is the focus of Chapter 20. Chapters 21 to 23 analyze how and why

product diversification and geographic diversification—both domestic and international—can improve an FI's return-risk performance and the impact of regulation on the diversification opportunity set. Chapters 24 through 28 review various new markets and instruments that have been innovated or engineered to allow FIs to better manage three important types of risk: interest rate risk, credit risk, and foreign exchange risk. These markets and instruments and their strategic use by FIs include futures and forwards (Chapter 24); options, caps, floors, and collars (Chapter 25); swaps (Chapter 26); loan sales (Chapter 27); and securitization (Chapter 28).

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## Changes in This Edition

Each chapter in this edition has been revised thoroughly to reflect the most up-to-date information available. End of chapter questions and problem material have also been revised to provide a more complete selection of testing material.

The following are some of the highlights of this revision.

In Part I, Introduction, we have increased our coverage of nonbank financial institutions to reflect the changing landscape of the financial institutions industry. In keeping with this, three new chapters have been added that focus, respectively, on the securities firm and investment banking industry (Chapter 3), the mutual fund industry (Chapter 4), and finance companies (Chapter 5). In addition, a new appendix to Chapter 1 describes the DuPont analysis or decomposition of an FI's return on equity (ROE).

In Part II, Measuring Risk, a wealth of new information has been added. The market risk chapter (Chapter 10) goes into more details about alternative approaches to measuring market risk, including RiskMetrics, historic (back) simulation, and Monte Carlo simulation.

Chapter 11, Credit Risk: Individual Loan Risk, discusses the revolution in new approaches to measuring credit risk. Importantly, two appendixes have been added. The first is on J. P. Morgan's CreditMetrics; the second is on Credit Suisse Financial Products' (CSFP) new approach called Credit Risk<sup>+</sup>.

In Chapter 16, Sovereign Risk, the importance of assessing the sovereign risk of a borrowing country is underscored by the recent examples provided by the crisis in Asia and Russia and the effects of this crisis on FIs as diverse as banks, investment banks, and hedge funds—such as Long-Term Capital Management. Clearly, these events are likely to have serious repercussions for fund flows from U.S. to emerging-market countries for a long time.

In Part III, the focus moves from the measurement of risk to the management of risk. In this edition, some chapters have been rearranged to permit a better flow of information and to emphasize the increasing internationalization of U.S. FIs.

Chapter 21, Product Diversification, looks in detail at the recent Travelers–Citicorp merger and the implications this merger has for the growth of universal banking in the United States. The chapter on geographic diversification has been expanded and split to reflect the increased move toward nationwide branching in the United States, the importance of foreign banks in the United States, and the growth of U.S. FI presence overseas—especially in emerging markets. Chapter 22 focuses on domestic diversification, while Chapter 23 focuses on international diversification.

Chapters 24 (“Futures and Forwards”), 25 (“Options, Caps, Floors, and Collars”), and 26 (“Swaps”) have been expanded to cover the dramatic growth in credit derivatives. In particular, new instruments such as credit options, credit forwards, and credit swaps are covered and the role they play in hedging credit risk is described.

## Ancillaries

To assist in course preparation, the following ancillaries are offered:

- Through a unique arrangement with Dow Jones, the price of the special WSJ version of the text includes a 10-week subscription to this business periodical. Please contact your Irwin/McGraw-Hill representative for ordering information.
- The Instructor's Manual/Test Bank, prepared by Ernie Swift, Georgia State University, includes detailed chapter contents, additional examples for use in the classroom, PowerPoint teaching notes, complete solutions to end of chapter questions and problem material, and additional problems for test material.
- The PowerPoint Presentation System was created by Kenneth Stanton of Southern Illinois University. It contains useful and graphically enhanced outlines, summaries, and exhibits from the text. The slides can be edited, printed, or arranged to fit the needs of your course.
- Computest, our computerized version of the test bank, allows the instructor to pick and choose the order and number of questions to include for each test.

## Acknowledgments

Finally, I would like to thank innumerable colleagues who assisted with the first, second, and third editions of this book. Of great help were the book reviewers whose painstaking comments and advice guided the third edition through its first and second revisions.

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**Anthony Saunders**

# BRIEF CONTENTS

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## PART I

### INTRODUCTION 1

- 1 The Financial Services Industry: Depository Institutions 2
- 2 The Financial Services Industry: Insurance Companies 28
- 3 The Financial Services Industry: Securities Firms and Investment Banks 49
- 4 The Financial Services Industry: Mutual Funds 60
- 5 The Financial Services Industry: Finance Companies 74
- 6 Why Are Financial Intermediaries Special? 84
- 7 Risks of Financial Intermediation 103

## PART II

### MEASURING RISK 119

- 8 Interest Rate Risk I 120
- 9 Interest Rate Risk II 146
- 10 Market Risk 180
- 11 Credit Risk: Individual Loan Risk 202
- 12 Credit Risk: Loan Portfolio and Concentration Risk 249
- 13 Off-Balance-Sheet Activities 260
- 14 Operational Cost and Technology Risk 281
- 15 Foreign Exchange Risk 311
- 16 Sovereign Risk 328
- 17 Liquidity Risk 357

## PART III

### MANAGING RISK 377

- 18 Liability and Liquidity Management 378
- 19 Deposit Insurance and Other Liability Guarantees 405
- 20 Capital Adequacy 442
- 21 Product Diversification 476
- 22 Geographic Diversification: Domestic 516
- 23 Geographic Diversification: International 537
- 24 Futures and Forwards 555
- 25 Options, Caps, Floors, and Collars 588
- 26 Swaps 621
- 27 Loan Sales and Other Credit Risk Management Techniques 648
- 28 Securitization 664

- Appendixes 704  
References 712  
Solutions 722  
Index 729

# CONTENTS

---

## PART I

---

### INTRODUCTION 1

#### 1 The Financial Services Industry: Depository Institutions 2

- Commercial Banks 4
  - Size, Structure, and Composition of the Industry 4
  - Balance Sheet and Recent Trends 6
  - Regulation 9
- Savings Institutions 14
  - Savings and Loans (S&Ls) 14
  - Savings Banks 18
- Credit Unions 19
  - Size, Structure, and Composition of the Industry and Recent Trends 19
  - Regulation 21
- Summary 22

**Appendix 1A** Financial Statement Analysis  
Using a Return on Equity (ROE)  
Framework 26

**Appendix 1B** Depository Institutions and  
Their Regulators 27

#### 2 The Financial Services Industry: Insurance Companies 28

- Life Insurance Companies 28
  - Size, Structure, and Composition of the Industry 28
  - Balance Sheet and Recent Trends 33
  - Regulation 34

- Property-Casualty Insurance 36
  - Size, Structure, and Composition of the Industry 36
  - Balance Sheet and Recent Trends 38
  - Regulation 45
- Summary 47

#### 3 The Financial Services Industry: Securities Firms and Investment Banks 49

- Size, Structure, and Composition of the Industry 50
- Balance Sheet and Recent Trends 55
- Regulation 57
- Summary 58

#### 4 The Financial Services Industry: Mutual Funds 60

- Size, Structure, and Composition of the Industry 61
- Historical Trends 61
- Different Types of Mutual Funds 62
- Mutual Fund Objectives 64
- Investor Returns from Mutual Fund Ownership 66
- Load versus No-Load Funds 68
- Balance Sheet and Recent Trends 70
- Money Market Funds 70
- Long-Term Funds 70
- Regulation 72
- Summary 72

## 5 The Financial Services Industry: Finance Companies 74

- Size, Structure, and Composition  
of the Industry 74
- Balance Sheet and Recent Trends 76
  - Consumer Loans 78
  - Mortgages 78
  - Business Loans 79
- Regulation 82
- Summary 83

## 6 Why Are Financial Intermediaries Special? 84

- Financial Intermediaries' Specialness 85
  - Information Costs 87
  - Liquidity and Price Risk 88
  - Other Special Services 89
- Other Aspects of Specialness 90
  - The Transmission of Monetary Policy 90
  - Credit Allocation 90
  - Intergenerational Wealth Transfers or  
Time Intermediation 91
  - Payment Services 91
  - Denomination Intermediation 91
- Specialness and Regulation 92
  - Safety and Soundness Regulation 93
  - Monetary Policy Regulation 95
  - Credit Allocation Regulation 95
  - Consumer Protection Regulation 96
  - Investor Protection Regulation 96
  - Entry Regulation 96
- The Changing Dynamics of Specialness 97
  - Trends in the United States 97
  - Future Trends 99
- Summary 100

## 7 Risks of Financial Intermediation 103

- Interest Rate Risk 104
- Market Risk 106
- Credit Risk 107
- Off-Balance-Sheet Risk 108
- Technology and Operational Risk 109
- Foreign Exchange Risk 111
- Country or Sovereign Risk 113
- Liquidity Risk 114
- Insolvency Risk 114
- Other Risks and the Interaction of Risks 115
- Summary 116

## PART II

## MEASURING RISK 119

### 8 Interest Rate Risk I 120

- The Central Bank and Interest Rate Risk 121
- The Repricing Model 122
  - Rate-Sensitive Assets 124
  - Rate-Sensitive Liabilities 125
- Weaknesses of the Repricing Model 127
  - Market Value Effects 127
  - Overaggregation 127
  - The Problem of Runoffs 128
- The Maturity Model 129
  - The Maturity Model: An Example 130
  - The Maturity Model with a Portfolio of  
Assets and Liabilities 132
- Maturity Matching and Interest Rate  
Exposure 136
- Summary 139
- Appendix 8A:** Term Structure of  
Interest Rates 143
- Liquidity Premium Theory 144
- Market Segmentation Theory 144

### 9 Interest Rate Risk II 146

- Duration 147
- A General Formula for Duration 149
  - The Duration of a Six-Year Eurobond 150
  - The Duration of a Two-Year U.S. Treasury  
Bond 150
  - The Duration of a Zero-Coupon Bond 151
  - The Duration of a Consol Bond  
(Perpetuities) 151
- Features of Duration 152
  - Duration and Maturity 152
  - Duration and Yield 152
  - Duration and Coupon Interest 152
- The Economic Meaning of Duration 153
  - The Six-Year Eurobond 155
  - The Consol Bond 155
  - Semiannual Coupon, Two-Year Maturity,  
Treasury Bonds 156
- Duration and Immunization 156
  - Duration and Immunizing Future  
Payments 156
  - Immunizing the Whole Balance Sheet  
of an FI 160
- Immunization and Regulatory  
Considerations 164

Summary	165
<b>Appendix 9A:</b> Difficulties in Applying the Duration Model to Real-World FI Balance Sheets*	169
Duration Matching Can Be Costly*	169
Immunization Is a Dynamic Problem*	169
Large Interest Rate Changes and Convexity*	169
The Problem of the Flat Term Structure*	175
The Problem of Default Risk*	176
Floating-Rate Loans and Bonds*	177
Demand Deposits and Passbook Savings*	179
Mortgages and Mortgage-Backed Securities*	179
Futures, Options, Swaps, Caps, and Other Contingent Claims*	179
<b>10 Market Risk</b>	<b>180</b>
Market Risk Measurement	182
Calculating Market Risk Exposure	183
The RiskMetrics Model	183
The Market Risk of Fixed-Income Securities	184
Foreign Exchange	186
Equities	187
Portfolio Aggregation	187
Historic or Back Simulation Approach	190
The Historic (Back Simulation) Model versus RiskMetrics	192
The Monte Carlo Simulation Approach*	193
Regulatory Models: The BIS Standardized Framework	194
Fixed Income	194
Foreign Exchange	196
Equities	196
The BIS Regulations and Large Bank Internal Models	197
Summary	199
<b>11 Credit Risk: Individual Loan Risk</b>	<b>202</b>
Credit Quality Problems	203
Types of Loans	204
Commercial and Industrial Loans	204
Real Estate Loans	206
Individual (Consumer) Loans	208
Other Loans	208
The Return on a Loan	211
The Contractually Promised Return on a Loan	211
The Expected Return on a Loan	213
Retail versus Wholesale Credit Decisions	214
Retail	214
Wholesale	214
Measurement of Credit Risk	216
Default Risk Models	217
Qualitative Models	217
Credit Scoring Models	221
Newer Models of Credit Risk Measurement and Pricing	225
Term Structure Derivation of Credit Risk	225
Mortality Rate Derivation of Credit Risk	230
RAROC Models	232
Option Models of Default Risk*	234
Summary	240
<b>Appendix 11A*:</b> CreditMetrics	244
Rating Migration	244
Valuation	244
Calculation of VAR	245
Capital Requirements	246
<b>Appendix 11B*:</b> Credit Risk+	246
The Frequency Distribution of Default Rates	247
<b>12 Credit Risk: Loan Portfolio and Concentration Risk</b>	<b>249</b>
Simple Models of Loan Concentration Risk	249
Loan Portfolio Diversification and Modern Portfolio Theory (MPT)	251
KMV Portfolio Manager Model	253
Partial Applications of Portfolio Theory	255
Loan Loss Ratio-Based Models	257
Regulatory Models	257
Summary	258
<b>13 Off-Balance-Sheet Activities</b>	<b>260</b>
Off-Balance-Sheet Activities and FI Solvency	261
Returns and Risks of Off-Balance-Sheet Activities	264
Loan Commitments	265
Commercial Letters of Credit and Standby Letters of Credit	270
Derivative Contracts: Futures, Forwards, Swaps, and Options	272
Forward Purchases and Sales of When Issued Securities	273

Loans Sold	274	Multicurrency Foreign Asset–Liability Positions	324
Schedule L and Nonschedule L Off-Balance-Sheet Risks	275	Summary	325
Settlement Risk	275	<b>16 Sovereign Risk</b>	<b>328</b>
Affiliate Risk	276	Credit Risk versus Sovereign Risk	330
The Role of OBS Activities in Reducing Risk	277	Debt Repudiation versus Debt Rescheduling	331
Summary	278	Country Risk Evaluation	333
<b>14 Operational and Technology Risk</b>	<b>281</b>	Outside Evaluation Models	333
What Are the Sources of Operational Risk?	282	Internal Evaluation Models	333
Technological Innovation and Profitability	282	Using Market Data to Measure Risk:	
The Impact of Technology on Wholesale and Retail Banking	284	The Secondary Market for LDC Debt	343
Wholesale Banking Services	284	Summary	348
Retail Banking Services	285	<b>Appendix 16A:</b> Mechanisms for Dealing with Sovereign Risk Exposure	351
The Effect of Technology on Revenues and Costs	286	Debt-Equity Swaps	351
Technology and Revenues	287	Multiyear Restructuring Agreements (MYRAs)	353
Technology and Costs	289	Loan Sales	355
Testing for Economies of Scale and Economies of Scope	294	Debt for Debt Swaps (Brady Bonds)	356
The Production Approach	294	<b>17 Liquidity Risk</b>	<b>357</b>
The Intermediation Approach	295	Causes of Liquidity Risk	358
Empirical Findings on Cost Economies of Scale and Scope and Implications for Technology Expenditures	295	Liquidity Risk at Banks and Thrifts	358
Economies of Scale and Scope and X-Inefficiencies	296	Liability-Side Liquidity Risk	358
Technology and the Evolution of the Payments System	297	Asset-Side Liquidity Risk	362
Risks That Arise in a Wire Transfer Payment System	302	Measuring a Bank's Liquidity Exposure	362
Summary	309	Liquidity Risk, Unexpected Deposit Drains, and Bank Runs	366
<b>15 Foreign Exchange Risk</b>	<b>311</b>	Bank Runs, the Discount Window, and Deposit Insurance	370
Sources of Foreign Exchange Risk		Liquidity Risk and Life Insurance Companies	370
Exposure	311	Liquidity Risk and Property-Casualty Insurers	371
Foreign Exchange Rate Volatility and FX Exposure	313	Mutual Funds	372
Foreign Currency Trading	314	Summary	374
FX Trading Activities	314	<b>PART III</b>	
The Profitability of Foreign Currency Trading	315	<b>MANAGING RISK</b>	<b>377</b>
Foreign Asset and Liability Positions	316	<b>18 Liability and Liquidity Management</b>	<b>378</b>
The Return and Risk of Foreign Investments	318	Liquid Asset Management	379
Risk and Hedging	319	Monetary Policy Reasons	379
		Taxation Reasons	379
		The Composition of the Liquid Asset Portfolio	380

Return-Risk Trade-Off for Liquid Assets	381
The Liquid Asset Reserve Management Problem for U.S. Banks	381
Liability Management	389
Funding Risk and Cost	389
Choice of Liability Structure	390
Demand Deposits	390
Interest-Bearing Checking Accounts	391
Passbook Savings	393
Money Market Deposit Accounts (MMDAs)	393
Retail Time Deposits and CDs	394
Wholesale CDs	395
Federal Funds	396
Repurchase Agreements (RPs)	397
Other Borrowings	397
Liquidity and Liability Structures for U.S. Banks	398
Liability and Liquidity Risk Management in Insurance Companies	400
Liability and Liquidity Risk Management in Other FIs	401
Summary	402

## 19 Deposit Insurance and Other Liability Guarantees 405

The History of Bank and Thrift Guaranty Funds	406
The FDIC	406
The FSLIC and Its Demise	407
The Causes of the Depository Fund Insolvencies	409
The Financial Environment	409
Moral Hazard	409
Panic Prevention versus Moral Hazard	410
Controlling Bank Risk Taking	412
Stockholder Discipline	412
Depositor Discipline	418
Regulatory Discipline	428
Non-U.S. Deposit Insurance Systems	428
The Discount Window	429
Deposit Insurance versus the Discount Window	429
The Discount Window	429
The Discount Window Does Not Substitute for Deposit Insurance	430
Other Guaranty Programs	432
PC and Life Insurance Companies	432
The Securities Investor Protection Corporation	433

The Pension Benefit Guaranty Corporation	433
--	-----

Summary	434
---------	-----

<b>Appendix 19A:</b> Deposit-Insurance Schemes for Commercial Banks in the EU and G-10 Countries	437
--	-----

## 20 Capital Adequacy 442

The Cost of Equity Capital as a Funding Source	443
Capital and Insolvency Risk	444
Capital	444
The Market Value of Capital	445
The Book Value of Capital	447
The Discrepancy between the Market and Book Values of Equity	450
Arguments against Market Value Accounting	451
Capital Adequacy in the Commercial Banking and Thrift Industry	452
Actual Capital Rules	452
The Capital-Assets Ratio (or Leverage Ratio)	453
Risk-Based Capital Ratios	454
Calculating Risk-Based Capital Ratios	456
Capital Requirements for Other FIs	467
Securities Firms	467
Life Insurance	467
Property-Casualty Insurance	469
Summary	471

## 21 Product Diversification 476

Risks of Product Segmentation	477
Segmentation in the U.S. Financial Services Industry	480
Commercial and Investment Banking Activities	480
Banking and Insurance	487
Commercial Banking and Commerce	489
Nonbank Financial Service Firms and Commerce	490
Activity Restrictions in the United States versus Other Countries	492
Issues Involved in the Expansion of Product Powers	492
Safety and Soundness Concerns	494
Economies of Scale and Scope	500
Conflicts of Interest	500
Deposit Insurance	503

- Regulatory Oversight 503
- Competition 504
- Summary 506
- Appendix 21A:** Permissible Banking Activities and Bank Ownership in the EU and G-10 Countries 508
- 22 Geographic Diversification: Domestic 516**
  - Domestic Expansions 517
  - Regulatory Factors Impacting Geographic Expansion 518
  - Insurance Companies 518
  - Thriffs 518
  - Commercial Banks 518
  - Cost and Revenue Synergies Impacting Geographic Expansion 523
  - Cost Synergies 524
  - Revenue Synergies 526
  - Other Market- and Firm-Specific Factors Impacting Geographic Expansion Decisions 530
  - The Success of Geographic Expansions 532
  - Investor Reaction 532
  - Postmerger Performance 534
  - Summary 535
- 23 Geographic Diversification: International 537**
  - Global and International Expansions 537
  - U.S. Banks Abroad 539
  - Foreign Banks in the United States 545
  - The International Banking Act of 1978 548
  - Advantages and Disadvantages of International Expansion 551
  - Advantages 551
  - Disadvantages 552
  - Summary 554
- 24 Futures and Forwards 555**
  - Forward and Futures Contracts 556
  - Spot Contracts 556
  - Forward Contracts 558
  - Futures Contracts 558
  - Forward Contracts and Hedging Interest Rate Risk 559
  - Hedging Interest Rate Risk with Futures Contracts 562
  - Microhedging 562
  - Macrohedging 562
  - Routine Hedging versus Selective Hedging 563
  - Macrohedging with Futures 563
  - The Problem of Basis Risk 570
  - Hedging Foreign Exchange Risk 571
  - Forwards 572
  - Futures 572
  - Estimating the Hedge Ratio 576
  - Hedging Credit Risk with Futures and Forwards 579
  - Credit Forward Contracts and Credit Risk Hedging 579
  - Futures Contracts and Catastrophe Risk 582
  - Futures and Forward Policies of Regulators 583
  - Summary 583
- 25 Options, Caps, Floors, and Collars 588**
  - Basic Features of Options 589
  - Buying a Call Option on a Bond 589
  - Writing a Call Option on a Bond 590
  - Buying a Put Option on a Bond 590
  - Writing a Put Option on a Bond 591
  - Writing versus Buying Options 592
  - Economic Reasons for Not Writing Options 592
  - Regulatory Reasons 593
  - The Mechanics of Hedging a Bond or Bond Portfolio 594
  - Hedging with Bond Options Using the Binomial Model 594
  - Actual Bond Options 598
  - Using Options to Hedge the Interest Rate Risk on the Balance Sheet\* 600
  - Using Options to Hedge Foreign Exchange Risk 603
  - Hedging Credit Risk with Options 605
  - Hedging Catastrophe Risk with Call Spread Options 607
  - Caps, Floors, and Collars 608
  - Caps 608
  - Floors 612
  - Collars 613
  - Caps, Floors, Collars, and Credit Risk 616
  - Summary 616
- 26 Swaps 621**
  - Interest Rate Swaps 623
  - Realized Cash Flows on an Interest Rate Swap 625

Macrohedging with Swaps*	628
Pricing an Interest Rate Swap*	630
Pricing a Swap: An Example*	630
Currency Swaps	637
Fixed-Fixed Currency Swaps	637
Fixed-Floating Currency Swaps	639
Credit Swaps	640
Total Return Swaps	640
Pure Credit Swaps	642
Swaps and Credit Risk Concerns	642
Summary	644

## **27 Loan Sales and Other Credit Risk Management Techniques 648**

Loan Sales	649
The Bank Loan Sales Market	650
Definition of a Loan Sale	650
Types of Loan Sales	650
Types of Loan Sales Contracts	652
The Buyers and the Sellers	653
Why Banks and Other FIs Sell Loans	658
Reserve Requirements	658
Fee Income	658
Capital Costs	658
Liquidity Risk	658
Glass-Steagall and Securities Law Interpretations	659
Factors Deterring Loan Sales Growth in the Future	659
Access to the Commercial Paper Market	660
Customer Relationship Effects	660
Legal Concerns	660
Factors Encouraging Loan Sales Growth in the Future	660
BIS Capital Requirements	660

Market Value Accounting	661
Asset Brokerage and Loan Trading	661
Government Loan Sales	661
Credit Ratings	661
Purchase and Sale of Foreign Bank Loans	661
Summary	662

## **28 Securitization 664**

The Pass-Through Security	665
GNMA	665
FNMA	665
FHLMC	668
The Incentives and Mechanics of Pass-Through Security Creation	668
Prepayment Risk on Pass-Through Securities	673
Prepayment Models	680
The Collateralized Mortgage Obligation (CMO)	688
Creation of CMOs	688
The Value Additivity of CMOs	689
Class A, B, and C Bond Buyers	691
Other CMO Classes	692
The Mortgage-Backed Bond (MBB)	693
Innovations in Securitization	695
Mortgage Pass-Through Strips	695
Securitization of Other Assets	698
Can All Assets Be Securitized?	699
Summary	700

Appendixes	704
References	712
Solutions	722
Index	729

PART  
I

# INTRODUCTION

- 
- 1 The Financial Services Industry: Depository Institutions 2
  - 2 The Financial Services Industry: Insurance Companies 28
  - 3 The Financial Services Industry: Securities Firms and Investment Banks 49
  - 4 The Financial Services Industry: Mutual Funds 60
  - 5 The Financial Services Industry: Finance Companies 74
  - 6 Why Are Financial Intermediaries Special? 84
  - 7 Risks of Financial Intermediation 103