

## **PART ONE**

### **Introduction 1**

- 1** Why Are Financial Intermediaries Special? 3
- 2** The Financial Services Industry: Depository Institutions 24
- 3** The Financial Services Industry: Insurance Companies 60
- 4** The Financial Services Industry: Securities Firms and Investment Banks 84
- 5** The Financial Services Industry: Mutual Funds 103
- 6** The Financial Services Industry: Finance Companies 125
- 7** Risks of Financial Intermediation 138

## **PART TWO**

### **Measuring Risk 159**

- 8** Interest Rate Risk I 161
- 9** Interest Rate Risk II 193
- 10** Market Risk 232
- 11** Credit Risk: Individual Loan Risk 259
- 12** Credit Risk: Loan Portfolio and Concentration Risk 310
- 13** Off-Balance-Sheet Activities 323

- 14** Technology and Other Operational Risks 346
- 15** Foreign Exchange Risk 378
- 16** Sovereign Risk 395
- 17** Liquidity Risk 424

## **PART THREE**

### **Managing Risk 447**

- 18** Liability and Liquidity Management 449
- 19** Deposit Insurance and Other Liability Guarantees 475
- 20** Capital Adequacy 511
- 21** Product Diversification 556
- 22** Geographic Diversification: Domestic 584
- 23** Geographic Diversification: International 606
- 24** Futures and Forwards 620
- 25** Options, Caps, Floors, and Collars 653
- 26** Swaps 690
- 27** Loan Sales and Other Credit Risk Management Techniques 717
- 28** Securitization 733

# **PART ONE**

## **INTRODUCTION 1**

### **Chapter 1**

#### **Why Are Financial Intermediaries Special? 3**

Introduction 3

Financial Intermediaries' Specialness 4

*Information Costs 6*

*Liquidity and Price Risk 7*

*Other Special Services 8*

Other Aspects of Specialness 9

*The Transmission of Monetary Policy 9*

*Credit Allocation 10*

*Intergenerational Wealth Transfers or Time*

*Intermediation 10*

*Payment Services 10*

*Denomination Intermediation 10*

Specialness and Regulation 11

*Safety and Soundness Regulation 12*

*Monetary Policy Regulation 13*

*Credit Allocation Regulation 14*

*Consumer Protection Regulation 14*

*Investor Protection Regulation 15*

*Entry Regulation 15*

The Changing Dynamics of Specialness 15

*Trends in the United States 16*

*Future Trends 17*

*Global Issues 18*

Summary 21

### **Chapter 2**

#### **The Financial Services Industry: Depository Institutions 24**

Introduction 24

Commercial Banks 25

*Size, Structure, and Composition of the  
Industry 26*

*Balance Sheet and Recent Trends 29*

*Other Fee-Generating Activities 34*

*Regulation 34*

*Industry Performance 38*

Savings Institutions 40

<i>Savings Associations (SAs)</i>	40
<i>Savings Banks</i>	47
<i>Recent Performance of Savings Associations and Savings Banks</i>	48
Credit Unions	49
<i>Size, Structure, and Composition of the Industry and Recent Trends</i>	50
<i>Balance Sheets</i>	52
<i>Regulation</i>	53
<i>Industry Performance</i>	53
Global Issues	54
Summary	55

### **Chapter 3**

## **The Financial Services Industry: Insurance Companies 60**

Introduction	60
Life Insurance Companies	60
<i>Size, Structure, and Composition of the Industry</i>	60
<i>Balance Sheet and Recent Trends</i>	65
<i>Regulation</i>	66
Property-Casualty Insurance	68
<i>Size, Structure, and Composition of the Industry</i>	68
<i>Balance Sheet and Recent Trends</i>	71
<i>Regulation</i>	79
Global Issues	79
Summary	81

### **Chapter 4**

## **The Financial Services Industry: Securities Firms and Investment Banks 84**

Introduction	84
Size, Structure, and Composition of the Industry	85
Balance Sheet and Recent Trends	93
<i>Recent Trends</i>	93
<i>Balance Sheet</i>	96
Regulation	97
Global Issues	99
Summary	100

## **Chapter 5**

### **The Financial Services Industry: Mutual Funds 103**

- Introduction 103
- Size, Structure, and Composition of the Industry 104
  - Historical Trends* 104
  - Different Types of Mutual Funds* 105
  - Mutual Fund Objectives* 109
  - Investor Returns from Mutual Fund Ownership* 112
  - Mutual Fund Costs* 114
  - Mutual Fund Share Quotes* 115
- Balance Sheet and Recent Trends 117
  - Money Market Funds* 117
  - Long-Term Funds* 118
- Regulation 119
- Global Issues 119
- Summary 121
- Appendix 5A Hedge Funds 122

## **Chapter 6**

### **The Financial Services Industry: Finance Companies 125**

- Introduction 125
- Size, Structure, and Composition of the Industry 125
- Balance Sheet and Recent Trends 128
  - Assets* 128
  - Liabilities and Equity* 132
  - Industry Performance* 133
- Regulation 135
- Global Issues 136
- Summary 136

## **Chapter 7**

### **Risks of Financial Intermediation 138**

- Introduction 138
- Interest Rate Risk 138
- Market Risk 141
- Credit Risk 142
- Off-Balance-Sheet Risk 144
- Technology and Operational Risks 145
- Foreign Exchange Risk 147
- Country or Sovereign Risk 149
- Liquidity Risk 150
- Insolvency Risk 151
- Other Risks and the Interaction of Risks 152
- Summary 153

## **PART TWO**

### **MEASURING RISK 159**

#### **Chapter 8**

##### **Interest Rate Risk I 161**

- Introduction 161
- The Central Bank and Interest Rate Risk 162
- The Repricing Model 164
  - Rate-Sensitive Assets* 166
  - Rate-Sensitive Liabilities* 167
  - Equal Changes in Rates on RSAs and RSLs* 168
  - Unequal Changes in Rates on RSAs and RSLs* 169
- Weaknesses of the Repricing Model 171
  - Market Value Effects* 171
  - Overaggregation* 172
  - The Problem of Runoffs* 173
  - Cash Flows from Off-Balance-Sheet Activities* 173
- The Maturity Model 174
  - The Maturity Model with a Portfolio of Assets and Liabilities* 177
- Maturity Matching and Interest Rate Risk Exposure 181
- Summary 183
- Appendix 8A Term Structure of Interest Rates 190

#### **Chapter 9**

##### **Interest Rate Risk II 193**

- Introduction 193
- Duration 193
- A General Formula for Duration 196
  - The Duration of Interest-Bearing Bonds* 197
  - The Duration of a Zero-Coupon Bond* 198
  - The Duration of a Consol Bond (Perpetuities)* 199
- Features of Duration 199
  - Duration and Maturity* 200
  - Duration and Yield* 200
  - Duration and Coupon Interest* 200
- The Economic Meaning of Duration 201
  - Semiannual Coupon Bonds* 204
- Duration and Immunization 204
  - Duration and Immunizing Future Payments* 205
  - Immunizing the Whole Balance Sheet of an FI* 208
- Immunization and Regulatory Considerations 212
- Summary 213

## Appendix 9A Difficulties in Applying the Duration Model to Real-World FI Balance Sheets 214

### Chapter 10

#### Market Risk 232

Introduction 232

Market Risk Measurement 233

Calculating Market Risk Exposure 235

The RiskMetrics Model 235

*The Market Risk of Fixed-Income  
Securities 236*

*Foreign Exchange 239*

*Equities 240*

*Portfolio Aggregation 240*

Historic or Back Simulation Approach 243

*The Historic (Back Simulation) Model versus  
RiskMetrics 246*

*The Monte Carlo Simulation Approach 247*

Regulatory Models: The BIS Standardized  
Framework 248

*Fixed Income 248*

*Foreign Exchange 252*

*Equities 252*

The BIS Regulations and Large Bank Internal  
Models 253

Summary 255

### Chapter 11

#### Credit Risk: Individual Loan Risk 259

Introduction 259

Credit Quality Problems 260

Types of Loans 262

*Commercial and Industrial Loans 262*

*Real Estate Loans 264*

*Individual (Consumer) Loans 266*

*Other Loans 268*

Calculating the Return on a Loan 268

*The Contractually Promised Return on a  
Loan 268*

*The Expected Return on a Loan 271*

Retail versus Wholesale Credit Decisions 272

*Retail 272*

*Wholesale 272*

Measurement of Credit Risk 274

Default Risk Models 275

*Qualitative Models 275*

*Credit Scoring Models 277*

Newer Models of Credit Risk Measurement and  
Pricing 281

<i>Term Structure Derivation of Credit Risk</i>	281
<i>Mortality Rate Derivation of Credit Risk</i>	287
<i>RAROC Models</i>	289
<i>Option Models of Default Risk</i>	291
Summary	297
Appendix 11A CreditMetrics	303
Appendix 11B Credit Risk+	307

## **Chapter 12**

### **Credit Risk: Loan Portfolio and Concentration Risk 310**

Introduction	310
Simple Models of Loan Concentration Risk	310
Loan Portfolio Diversification and Modern Portfolio Theory (MPT)	312
<i>KMV Portfolio Manager Model</i>	315
<i>Partial Applications of Portfolio Theory</i>	317
<i>Loan Loss Ratio-Based Models</i>	319
<i>Regulatory Models</i>	320
Summary	320

## **Chapter 13**

### **Off-Balance-Sheet Activities 323**

Introduction	323
Off-Balance-Sheet Activities and FI Solvency	323
Returns and Risks of Off-Balance-Sheet Activities	327
<i>Loan Commitments</i>	329
<i>Commercial Letters of Credit and Standby Letters of Credit</i>	333
<i>Derivative Contracts: Futures, Forwards, Swaps, and Options</i>	335
<i>Forward Purchases and Sales of When Issued Securities</i>	337
<i>Loans Sold</i>	337
Nonschedule L Off-Balance-Sheet Risks	338
<i>Settlement Risk</i>	338
<i>Affiliate Risk</i>	339
The Role of OBS Activities in Reducing Risk	340
Summary	342

## **Chapter 14**

### **Technology and Other Operational Risks 346**

Introduction	346
What Are the Sources of Operational Risk?	347
Technological Innovation and Profitability	347



The Impact of Technology on Wholesale and Retail Financial Service Production	349
<i>Wholesale Financial Services</i>	349
<i>Retail Financial Services</i>	351
The Effect of Technology on Revenues and Costs	353
<i>Technology and Revenues</i>	354
<i>Technology and Costs</i>	355
Testing for Economies of Scale and Economies of Scope	360
<i>The Production Approach</i>	360
<i>The Intermediation Approach</i>	360
Empirical Findings on Cost Economies of Scale and Scope and Implications for Technology Expenditures	361
<i>Economies of Scale and Scope and     X-Inefficiencies</i>	361
Technology and the Evolution of the Payments System	362
<i>Risks That Arise in an Electronic Transfer     Payment System</i>	364
Other Operational Risks	371
Regulatory Issues and Technology and Operational Risks	373
Summary	374

## **Chapter 15**

### **Foreign Exchange Risk 378**

Introduction	378
Sources of Foreign Exchange Risk Exposure	378
<i>Foreign Exchange Rate Volatility and FX     Exposure</i>	381
Foreign Currency Trading	381
<i>FX Trading Activities</i>	382
<i>The Profitability of Foreign Currency     Trading</i>	382
Foreign Asset and Liability Positions	383
<i>The Return and Risk of Foreign     Investments</i>	384
<i>Risk and Hedging</i>	385
<i>Interest Rate Parity Theorem</i>	389
<i>Multicurrency Foreign Asset-Liability     Positions</i>	390
Summary	391

## **Chapter 16**

### **Sovereign Risk 395**

Introduction	395
Credit Risk versus Sovereign Risk	398
Debt Repudiation versus Debt Rescheduling	398

Country Risk Evaluation	400
<i>Outside Evaluation Models</i>	400
<i>Internal Evaluation Models</i>	402
<i>The Debt Service Ratio (DSR)</i>	402
<i>The Import Ratio (IR)</i>	404
<i>Investment Ratio (INVR)</i>	404
<i>Variance of Export Revenue (VAREX)</i>	405
<i>Domestic Money Supply Growth (MG)</i>	405
<i>Using Market Data to Measure Risk: The     Secondary Market for LDC Debt</i>	411
Summary	416
Appendix 16A Mechanisms for Dealing with Sovereign Risk Exposure	420

## **Chapter 17**

### **Liquidity Risk 424**

Introduction	424
Causes of Liquidity Risk	424
Liquidity Risk at Depository Institutions	425
<i>Liability-Side Liquidity Risk</i>	425
<i>Asset-Side Liquidity Risk</i>	429
<i>Measuring a DI's Liquidity Exposure</i>	429
<i>Liquidity Risk, Unexpected Deposit Drains, and     Bank Runs</i>	436
<i>Bank Runs, the Discount Window, and Deposit     Insurance</i>	438
Liquidity Risk and Life Insurance Companies	4
Liquidity Risk and Property-Casualty Insurers	439
Mutual Funds	440
Summary	442

## **PART THREE**

### **MANAGING RISK 447**

#### **Chapter 18**

### **Liability and Liquidity Management 4**

Introduction	449
Liquid Asset Management	449
<i>Monetary Policy Implementation Reasons</i>	4
<i>Taxation Reasons</i>	450
The Composition of the Liquid Asset Portfolio	451
Return-Risk Trade-Off for Liquid Assets	451
<i>The Liquid Asset Reserve Management Problem     for U.S. Depository Institutions</i>	452
<i>Undershooting/Overshooting of the Reserve     Target</i>	456
Liability Management	459

<i>Funding Risk and Cost</i>	459
Choice of Liability Structure	460
<i>Demand Deposits</i>	460
<i>Interest-Bearing Checking (NOW)</i>	
<i>Accounts</i>	461
<i>Passbook Savings</i>	462
<i>Money Market Deposit Accounts (MMDAs)</i>	463
<i>Retail Time Deposits and CDs</i>	463
<i>Wholesale CDs</i>	464
<i>Federal Funds</i>	465
<i>Repurchase Agreements (RPs)</i>	466
<i>Other Borrowings</i>	466
Liquidity and Liability Structures for U.S.	
Depository Institutions	467
Liability and Liquidity Risk Management in	
Insurance Companies	469
Liability and Liquidity Risk Management in Other	
FIs	470
Summary	470

## **Chapter 19**

### **Deposit Insurance and Other Liability Guarantees 475**

Introduction	475
The History of Bank and Thrift Guaranty	
Funds	476
<i>The FDIC</i>	476
<i>The Federal Savings and Loan Insurance</i>	
<i>Corporation (FSLIC) and Its Demise</i>	477
The Causes of the Depository Fund	
Insolvencies	479
<i>The Financial Environment</i>	479
<i>Moral Hazard</i>	480
Panic Prevention versus Moral Hazard	481
Controlling Depository Institution Risk	
Taking	483
<i>Stockholder Discipline</i>	483
<i>Depositor Discipline</i>	491
<i>Regulatory Discipline</i>	500
Non-U.S. Deposit Insurance Systems	501
The Discount Window	502
<i>Deposit Insurance versus the Discount Window</i>	
<i>The Discount Window</i>	502
<i>The Discount Window Does Not Substitute for</i>	
<i>Deposit Insurance</i>	502
Other Guaranty Programs	503
<i>National Credit Union Administration</i>	503
<i>Property-Casualty and Life Insurance</i>	
<i>Companies</i>	504

*The Securities Investor Protection*

*Corporation 505*

*The Pension Benefit Guaranty Corporation 505*

Summary 506

Appendix 19A Deposit Insurance Schemes for  
Commercial Banks in Various  
Countries 510

## **Chapter 20**

### **Capital Adequacy 511**

Introduction 511

The Cost of Equity Capital as a Funding  
Source 512

Capital and Insolvency Risk 513

*Capital 513*

*The Market Value of Capital 514*

*The Book Value of Capital 516*

*The Discrepancy between the Market and Book  
Values of Equity 518*

*Arguments against Market Value*

*Accounting 519*

Capital Adequacy in the Commercial Banking and  
Thrift Industry 520

*Actual Capital Rules 520*

*The Capital-Asset Ratio (or Leverage  
Ratio) 521*

*Risk-Based Capital Ratios 523*

*Calculating Risk-Based Capital Ratios 527*

Capital Requirements for Other FIs 543

*Securities Firms 543*

*Life Insurance 543*

*Property-Casualty Insurance 545*

Summary 546

Appendix 20A Internal Ratings-Based Approach  
to Measuring Credit Risk-Adjusted  
Assets 554

## **Chapter 21**

### **Product Diversification 556**

Introduction 556

Risks of Product Segmentation 556

Segmentation in the U.S. Financial Services  
Industry 558

*Commercial and Investment Banking  
Activities 558*

*Banking and Insurance 561*

*Commercial Banking and Commerce 562*

*Nonbank Financial Service Firms and  
Commerce 564*

Activity Restrictions in the United States versus Other Countries	565
Issues Involved in the Diversification of Product Offerings	565
<i>Safety and Soundness Concerns</i>	568
<i>Economies of Scale and Scope</i>	571
<i>Conflicts of Interest</i>	571
<i>Deposit Insurance</i>	575
<i>Regulatory Oversight</i>	576
<i>Competition</i>	577

Summary 579

Appendix 21A EU and G-10 Countries: Regulatory Treatment of the Mixing of Banking, Securities, and Insurance Activities and the Mixing of Banking and Commerce	583
--	-----

## **Chapter 22**

### **Geographic Diversification: Domestic 584**

Introduction 584

Domestic Expansions 584

Regulatory Factors Impacting Geographic  
Expansion 585

*Insurance Companies* 585

*Thrifts* 585

*Commercial Banks* 586

Cost and Revenue Synergies Impacting Geographic  
Expansion 591

*Cost Synergies* 591

*Revenue Synergies* 595

Other Market- and Firm-Specific Factors Impacting  
Geographic Expansion Decisions 598

The Success of Geographic Expansions 600

*Investor Reaction* 601

*Postmerger Performance* 601

Summary 603

## **Chapter 23**

### **Geographic Diversification: International 606**

Introduction 606

Global and International Expansions 606

*U.S. Banks Abroad* 608

*Foreign Banks in the United States* 611

*The International Banking Act of 1978* 612

Advantages and Disadvantages of International  
Expansion 616

*Advantages* 616

*Disadvantages* 617

Summary 618

## **Chapter 24**

### **Futures and Forwards 620**

Introduction 620

Forward and Futures Contracts 622

*Spot Contracts* 623

*Forward Contracts* 624

*Futures Contracts* 624

Forward Contracts and Hedging Interest Rate Risk 624

Hedging Interest Rate Risk with Futures Contracts 626

*Microhedging* 626

*Macrohedging* 626

*Routine Hedging versus Selective Hedging* 626

*Macrohedging with Futures* 627

*The Problem of Basis Risk* 634

Hedging Foreign Exchange Risk 636

*Forwards* 636

*Futures* 636

*Estimating the Hedge Ratio* 640

Hedging Credit Risk with Futures and Forwards 643

*Credit Forward Contracts and Credit Risk Hedging* 643

*Futures Contracts and Catastrophe Risk* 644

*Futures and Forward Policies of Regulators* 645

Summary 646

Appendix 24A Microhedging with Futures 652

## **Chapter 25**

### **Options, Caps, Floors, and Collars 653**

Introduction 653

Basic Features of Options 653

*Buying a Call Option on a Bond* 653

*Writing a Call Option on a Bond* 654

*Buying a Put Option on a Bond* 656

*Writing a Put Option on a Bond* 656

Writing versus Buying Options 657

*Economic Reasons for Not Writing Options*

*Regulatory Reasons* 659

*Futures versus Options Hedging* 659

The Mechanics of Hedging a Bond or Bond Portfolio 660

*Hedging with Bond Options Using the Binomial Model* 660

Actual Bond Options 664

Using Options to Hedge the Interest Rate Risk on the Balance Sheet 666

Using Options to Hedge Foreign Exchange Risk 670

Hedging Credit Risk with Options 672

Hedging Catastrophe Risk with Call Spread Options 674

Caps, Floors, and Collars 674

*Caps* 675

*Floors* 678

*Collars* 679

*Caps, Floors, Collars, and Credit Risk* 682

Summary 682

Appendix 25A Microhedging with Options 688

## **Chapter 26**

### **Swaps 690**

Introduction 690

Interest Rate Swaps 690

*Realized Cash Flows on an Interest Rate Swap* 694

*Macrohedging with Swaps* 695

Pricing an Interest Rate Swap 698

*Pricing a Swap: An Example* 698

Currency Swaps 705

*Fixed-Fixed Currency Swaps* 705

*Fixed-Floating Currency Swaps* 706

Credit Swaps 708

*Total Return Swaps* 708

*Pure Credit Swaps* 709

*Swaps and Credit Risk Concerns* 710

Summary 712

## **Chapter 27**

### **Loan Sales and Other Credit Risk Management Techniques 717**

Introduction 717

Loan Sales 718

The Bank Loan Sales Market 719

*Definition of a Loan Sale* 719

*Types of Loan Sales* 720

*Types of Loan Sales Contracts* 727

*The Buyers and the Sellers* 727

Why Banks and Other FIs Sell Loans 727

*Reserve Requirements* 727

*Fee Income* 727

*Capital Costs* 728

*Liquidity Risk* 728

**Factors Deterring Loan Sales Growth in the Future** 728

*Access to the Commercial Paper Market* 728

*Customer Relationship Effects* 728

*Legal Concerns* 729

**Factors Encouraging Loan Sales Growth in the Future** 729

*BIS Capital Requirements* 729

*Market Value Accounting* 729

*Asset Brokerage and Loan Trading* 730

*Government Loan Sales* 730

*Credit Ratings* 730

*Purchase and Sale of Foreign Bank Loans* 730

**Summary** 731

**Chapter 28**

**Securitization** 733

**Introduction** 733

**The Pass-Through Security** 733

*GNMA* 734

*FNMA* 734

*FHLMC* 734

*The Incentives and Mechanics of Pass-Through Security Creation* 735

*Prepayment Risk on Pass-Through Securities* 739

*Prepayment Models* 744

**The Collateralized Mortgage Obligation (CMO)** 752

*Creation of CMOs* 752

*Class A, B, and C Bond Buyers* 754

*Other CMO Classes* 755

**The Mortgage-Backed Bond (MBB)** 757

**Innovations in Securitization** 758

*Mortgage Pass-Through Strips* 758

*Securitization of Other Assets* 761

**Can All Assets Be Securitized?** 762

**Summary** 764

**Index** 769



## **Chapter**

- 11** U.S. Bank Shares Hit by Problem Loan Fears  
Model Behavior 260
- 13** Some Big Losses on Derivatives 324
- 20** Crunch Time 522
- 21** Banks See a 16,000-Branch Rival As State Farm  
Gets Thrift Charter 563  
ADT Files Suit against Own Bank for Backing  
Hostile Bid 576

- 23** ING Says Ad Campaign Is Also Just a Beginning 607
- 25** Deep-Rooted Reasons for NatWest Loss: Banks Say Nature of Options Trade Can Invite Bad Practice 655
- 27** Sales Kept Bad Loans off Banks' Portfolios 718

*Hedging with Bond Options Using the Binomial Model* 660

Actual Bond Options 664

Using Options to Hedge the Interest Rate Risk on the Balance Sheet 666

Using Options to Hedge Foreign Exchange Risk 670

Hedging Credit Risk with Options 672

Hedging Catastrophe Risk with Call Spread Options 674

Caps, Floors, and Collars 674

*Caps* 675

*Floors* 678

*Collars* 679

*Caps, Floors, Collars, and Credit Risk* 682

Summary 682

Appendix 25A Microhedging with Options 688

## **Chapter 26**

### **Swaps 690**

Introduction 690

Interest Rate Swaps 690

*Realized Cash Flows on an Interest Rate Swap* 694

*Macrohedging with Swaps* 695

Pricing an Interest Rate Swap 698

*Pricing a Swap: An Example* 698

Currency Swaps 705

*Fixed-Fixed Currency Swaps* 705

*Fixed-Floating Currency Swaps* 706

Credit Swaps 708

*Total Return Swaps* 708

*Pure Credit Swaps* 709

*Swaps and Credit Risk Concerns* 710

Summary 712

## **Chapter 27**

### **Loan Sales and Other Credit Risk Management Techniques 717**

Introduction 717

Loan Sales 718

The Bank Loan Sales Market 719

*Definition of a Loan Sale* 719

*Types of Loan Sales* 720

*Types of Loan Sales Contracts* 727

*The Buyers and the Sellers* 727

Why Banks and Other FIs Sell Loans 727

*Reserve Requirements* 727

<i>Fee Income</i>	727
<i>Capital Costs</i>	728
<i>Liquidity Risk</i>	728
Factors Deterring Loan Sales Growth in the Future	728
<i>Access to the Commercial Paper Market</i>	728
<i>Customer Relationship Effects</i>	728
<i>Legal Concerns</i>	729
Factors Encouraging Loan Sales Growth in the Future	729
<i>BIS Capital Requirements</i>	729
<i>Market Value Accounting</i>	729
<i>Asset Brokerage and Loan Trading</i>	730
<i>Government Loan Sales</i>	730
<i>Credit Ratings</i>	730
<i>Purchase and Sale of Foreign Bank Loans</i>	730
Summary	731

## **Chapter 28**

### **Securitization 733**

Introduction	733
The Pass-Through Security	733
<i>GNMA</i>	734
<i>FNMA</i>	734
<i>FHLMC</i>	734
<i>The Incentives and Mechanics of Pass-Through Security Creation</i>	735
<i>Prepayment Risk on Pass-Through Securities</i>	739
<i>Prepayment Models</i>	744
The Collateralized Mortgage Obligation (CMO)	752
<i>Creation of CMOs</i>	752
<i>Class A, B, and C Bond Buyers</i>	754
<i>Other CMO Classes</i>	755
The Mortgage-Backed Bond (MBB)	757
Innovations in Securitization	758
<i>Mortgage Pass-Through Strips</i>	758
<i>Securitization of Other Assets</i>	761
Can All Assets Be Securitized?	762
Summary	764

## **Index 769**

## **Chapter**

- 11** U.S. Bank Shares Hit by Problem Loan Fears  
Model Behavior 260
- 13** Some Big Losses on Derivatives 324
- 20** Crunch Time 522
- 21** Banks See a 16,000-Branch Rival As State Farm  
Gets Thrift Charter 563  
ADT Files Suit against Own Bank for Backing  
Hostile Bid 576

- 23** ING Says Ad Campaign Is Also Just a Beginning 607
- 25** Deep-Rooted Reasons for NatWest Loss: Banks Say Nature of Options Trade Can Invite Bad Practice 655
- 27** Sales Kept Bad Loans off Banks' Portfolios 718

## **Chapter**

- 1** Going for Brokers 19
- 2** Online Banks Fail to Realize Cyber-Goals 41
- 3** Bricks-and-Mortar Insurers Are Using Technology to Cement Customer Relationships, While Saving Money and Time 77
- 4** Internet Trading Turns Brokerage World Upside Down 91
- 5** Mutual Fund Shareowners' Use of the Internet 110

- 6** Even the Lucky Dot-Com Mortgage Lenders Aren't 134
- 10** Risk-Management Models Kept Even Keel in Topsy-Turvy Week 234
- 14** Breaking Cover 352  
Banks Cozy Up to Customers 355
- 24** Risk Management Software Spells Relief for Bankers 623