



FINANCIAL MARKETS AND INSTITUTIONS

Ninth Edition

Global Edition

Frederic S. Mishkin

Graduate School of Business, Columbia University

Stanley G. Eakins

East Carolina University



Pearson

Harlow, England • London • New York • Boston • San Francisco • Toronto • Sydney • Dubai • Singapore • Hong Kong
Tokyo • Seoul • Taipei • New Delhi • Cape Town • Sao Paulo • Mexico City • Madrid • Amsterdam • Munich • Paris • Milan

Contents in Brief

	<i>Contents in Detail</i>	9
	<i>Contents on the Web</i>	27
	<i>Preface</i>	31
	<i>About the Authors</i>	39
PART ONE	INTRODUCTION	41
	1 Why Study Financial Markets and Institutions?	41
	2 Overview of the Financial System	55
PART TWO	FUNDAMENTALS OF FINANCIAL MARKETS	77
	3 What Do Interest Rates Mean and What Is Their Role in Valuation?	77
	4 Why Do Interest Rates Change?	106
	5 How Do Risk and Term Structure Affect Interest Rates?	129
	6 Are Financial Markets Efficient?	157
PART THREE	FUNDAMENTALS OF FINANCIAL INSTITUTIONS	175
	7 Why Do Financial Institutions Exist?	175
	8 Why Do Financial Crises Occur and Why Are They So Damaging to the Economy?	206
PART FOUR	CENTRAL BANKING AND THE CONDUCT OF MONETARY POLICY	225
	9 Central Banks	225
	10 Conduct of Monetary Policy	244
PART FIVE	FINANCIAL MARKETS	285
	11 The Money Markets	285
	12 The Bond Market	308
	13 The Stock Market	333
	14 The Mortgage Markets	354
	15 The Foreign Exchange Market	375
	16 The International Financial System	403
PART SIX	THE FINANCIAL INSTITUTIONS INDUSTRY	425
	17 Banking and the Management of Financial Institutions	425
	18 Financial Regulation	451
	19 Banking Industry: Structure and Competition	479
	20 The Mutual Fund Industry	515

21	Insurance Companies and Pension Funds	540
22	Investment Banks, Security Brokers and Dealers, and Venture Capital Firms	570
PART SEVEN	THE MANAGEMENT OF FINANCIAL INSTITUTIONS	594
23	Risk Management in Financial Institutions	594
24	Hedging with Financial Derivatives	615
	Glossary	649
	<i>Index</i>	667
CHAPTERS ON THE WEB		
25	Financial Crises in Emerging Market Economies	W-1
26	Savings Associations and Credit Unions	W-22
27	Finance Companies	W-49

Contents in Detail

	<i>Contents on the Web</i>	27
	<i>Preface</i>	31
	<i>About the Authors</i>	39
PART ONE INTRODUCTION		
Chapter 1	Why Study Financial Markets and Institutions?	41
	PREVIEW	41
	Why Study Financial Markets?	42
	<i>Debt Markets and Interest Rates</i>	42
	<i>The Stock Market</i>	43
	<i>The Foreign Exchange Market</i>	44
	Why Study Financial Institutions?	46
	<i>Structure of the Financial System</i>	46
	<i>Financial Crises</i>	46
	<i>Central Banks and the Conduct of Monetary Policy</i>	47
	<i>The International Financial System</i>	47
	<i>Banks and Other Financial Institutions</i>	47
	<i>Financial Innovation</i>	47
	<i>Managing Risk in Financial Institutions</i>	48
	Applied Managerial Perspective	48
	How We Will Study Financial Markets and Institutions	49
	<i>Exploring the Web</i>	49
	<i>Collecting and Graphing Data</i>	50
	Web Exercise	50
	Concluding Remarks	52
	SUMMARY	52
	KEY TERMS	53
	QUESTIONS	53
	QUANTITATIVE PROBLEMS	54
	WEB EXERCISES	54
Chapter 2	Overview of the Financial System	55
	PREVIEW	55
	Function of Financial Markets	56
	Structure of Financial Markets	58
	<i>Debt and Equity Markets</i>	58
	<i>Primary and Secondary Markets</i>	58
	<i>Exchanges and Over-the-Counter Markets</i>	59
	<i>Money and Capital Markets</i>	60

Internationalization of Financial Markets	60
<i>International Bond Market, Eurobonds, and Eurocurrencies</i>	60
> GLOBAL Are U.S. Capital Markets Losing Their Edge?	61
<i>World Stock Markets</i>	62
Function of Financial Intermediaries: Indirect Finance	62
> FOLLOWING THE FINANCIAL NEWS Foreign Stock Market Indexes	63
> GLOBAL The Importance of Financial Intermediaries Relative to Securities Markets: An International Comparison	63
<i>Transaction Costs</i>	63
<i>Risk Sharing</i>	64
<i>Asymmetric Information: Adverse Selection and Moral Hazard</i>	65
<i>Economies of Scope and Conflicts of Interest</i>	66
Types of Financial Intermediaries	67
<i>Depository Institutions</i>	67
<i>Contractual Savings Institutions</i>	68
<i>Investment Intermediaries</i>	70
Regulation of the Financial System	71
<i>Increasing Information Available to Investors</i>	72
<i>Ensuring the Soundness of Financial Intermediaries</i>	72
<i>Financial Regulation Abroad</i>	73
SUMMARY	74
KEY TERMS	75
QUESTIONS	75
WEB EXERCISES	76

PART TWO FUNDAMENTALS OF FINANCIAL MARKETS

Chapter 3 What Do Interest Rates Mean and What Is Their Role in Valuation?	77
PREVIEW	77
Measuring Interest Rates	78
<i>Present Value</i>	78
<i>Four Types of Credit Market Instruments</i>	80
<i>Yield to Maturity</i>	81
> GLOBAL Negative Interest Rates? Japan First, Then the United States, Then Europe	87
The Distinction Between Real and Nominal Interest Rates	88
> MINI-CASE With TIPS, Real Interest Rates Have Become Observable in the United States	91
The Distinction Between Interest Rates and Returns	91
<i>Maturity and the Volatility of Bond Returns: Interest-Rate Risk</i>	94
> MINI-CASE Helping Investors Select Desired Interest-Rate Risk	95
<i>Reinvestment Risk</i>	95
<i>Summary</i>	96
> THE PRACTICING MANAGER Calculating Duration to Measure Interest-Rate Risk	96
<i>Calculating Duration</i>	97
<i>Duration and Interest-Rate Risk</i>	101

SUMMARY	102
KEY TERMS	103
QUESTIONS	103
QUANTITATIVE PROBLEMS	103
WEB EXERCISES	105
Chapter 4 Why Do Interest Rates Change?	106
PREVIEW	106
Determinants of Asset Demand	107
<i>Wealth</i>	107
<i>Expected Returns</i>	107
<i>Risk</i>	108
<i>Liquidity</i>	110
<i>Theory of Portfolio Choice</i>	110
Supply and Demand in the Bond Market	110
<i>Demand Curve</i>	111
<i>Supply Curve</i>	112
<i>Market Equilibrium</i>	113
<i>Supply-and-Demand Analysis</i>	114
Changes in Equilibrium Interest Rates	114
<i>Shifts in the Demand for Bonds</i>	115
<i>Shifts in the Supply of Bonds</i>	118
> CASE Changes in the Interest Rate Due to Expected Inflation: The Fisher Effect	120
> CASE Changes in the Interest Rate Due to a Business Cycle Expansion	122
> CASE Explaining the Current Low Interest Rates in Europe, Japan, and the United States	123
> THE PRACTICING MANAGER Profiting from Interest-Rate Forecasts	124
> FOLLOWING THE FINANCIAL NEWS Forecasting Interest Rates	126
SUMMARY	126
KEY TERMS	126
QUESTIONS	126
QUANTITATIVE PROBLEMS	127
WEB EXERCISES	128
WEB APPENDICES	128
Chapter 5 How Do Risk and Term Structure Affect Interest Rates?	129
PREVIEW	129
Risk Structure of Interest Rates	130
<i>Default Risk</i>	130
<i>Liquidity</i>	133
> CASE The Global Financial Crisis and the Baa-Treasury Spread	133
<i>Income Tax Considerations</i>	134
<i>Summary</i>	135
> CASE Effects of the Bush Tax Cut and the Obama Tax Increase on Bond Interest Rates	136
Term Structure of Interest Rates	137

> FOLLOWING THE FINANCIAL NEWS Yield Curves	138
<i>Expectations Theory</i>	139
<i>Market Segmentation Theory</i>	143
<i>Liquidity Premium Theory</i>	144
<i>Evidence on the Term Structure</i>	147
<i>Summary</i>	148
> MINI-CASE The Yield Curve as a Forecasting Tool for Inflation and the Business Cycle	149
> CASE Interpreting Yield Curves, 1980–2016	149
> THE PRACTICING MANAGER Using the Term Structure to Forecast Interest Rates	150
SUMMARY	153
KEY TERMS	154
QUESTIONS	154
QUANTITATIVE PROBLEMS	155
WEB EXERCISES	156
Chapter 6 Are Financial Markets Efficient?	157
PREVIEW	157
The Efficient Market Hypothesis	158
<i>Rationale Behind the Hypothesis</i>	160
Evidence on the Efficient Market Hypothesis	161
<i>Evidence in Favor of Market Efficiency</i>	161
> MINI-CASE An Exception That Proves the Rule: Raj Rajaratnam and Galleon	162
> CASE Should Foreign Exchange Rates Follow a Random Walk?	164
<i>Evidence Against Market Efficiency</i>	165
<i>Overview of the Evidence on the Efficient Market Hypothesis</i>	167
> THE PRACTICING MANAGER Practical Guide to Investing in the Stock Market	167
<i>How Valuable Are Published Reports by Investment Advisers?</i>	167
> MINI-CASE Should You Hire an Ape as Your Investment Adviser?	168
<i>Should You Be Skeptical of Hot Tips?</i>	168
<i>Do Stock Prices Always Rise When There Is Good News?</i>	169
<i>Efficient Markets Prescription for the Investor</i>	169
Why the Efficient Market Hypothesis Does Not Imply That Financial Markets Are Efficient	170
> CASE What Do Stock Market Crashes Tell Us About the Efficient Market Hypothesis?	171
Behavioral Finance	171
SUMMARY	172
KEY TERMS	173
QUESTIONS	173
QUANTITATIVE PROBLEMS	174
WEB EXERCISES	174
PART THREE FUNDAMENTALS OF FINANCIAL INSTITUTIONS	
Chapter 7 Why Do Financial Institutions Exist?	175
PREVIEW	175
Basic Facts About Financial Structure Throughout The World	176

Transaction Costs	179
<i>How Transaction Costs Influence Financial Structure</i>	179
<i>How Financial Intermediaries Reduce Transaction Costs</i>	179
Asymmetric Information: Adverse Selection and Moral Hazard	180
The Lemons Problem: How Adverse Selection Influences Financial Structure	181
<i>Lemons in the Stock and Bond Markets</i>	182
<i>Tools to Help Solve Adverse Selection Problems</i>	182
> MINI-CASE The Enron Implosion	184
How Moral Hazard Affects the Choice Between Debt and Equity Contracts	187
<i>Moral Hazard in Equity Contracts: The Principal–Agent Problem</i>	187
<i>Tools to Help Solve the Principal–Agent Problem</i>	188
How Moral Hazard Influences Financial Structure in Debt Markets	190
<i>Tools to Help Solve Moral Hazard in Debt Contracts</i>	190
<i>Summary</i>	192
> CASE Financial Development and Economic Growth	194
> MINI-CASE The Tyranny of Collateral	195
> CASE Is China a Counter-Example to the Importance of Financial Development?	196
Conflicts of Interest	197
<i>What Are Conflicts of Interest and Why Do We Care?</i>	197
<i>Why Do Conflicts of Interest Arise?</i>	197
> MINI-CASE The Demise of Arthur Andersen	199
> MINI-CASE Credit-Rating Agencies and the 2007–2009 Financial Crisis	200
<i>What Has Been Done to Remedy Conflicts of Interest?</i>	200
> MINI-CASE Has Sarbanes-Oxley Led to a Decline in U.S. Capital Markets?	202
SUMMARY	202
KEY TERMS	203
QUESTIONS	203
QUANTITATIVE PROBLEMS	204
WEB EXERCISES	205

Chapter 8 Why Do Financial Crises Occur and Why Are They So Damaging to the Economy?	206
PREVIEW	206
What Is a Financial Crisis?	207
<i>Agency Theory and the Definition of a Financial Crisis</i>	207
Dynamics of Financial Crises	207
<i>Stage One: Initial Phase</i>	207
<i>Stage Two: Banking Crisis</i>	210
<i>Stage Three: Debt Deflation</i>	211
> CASE The Mother of All Financial Crises: The Great Depression	211
<i>Stock Market Crash</i>	211
<i>Bank Panics</i>	211
<i>Continuing Decline in Stock Prices</i>	212

<i>Debt Deflation</i>	213
<i>International Dimensions</i>	213
> CASE The Global Financial Crisis of 2007–2009	214
<i>Causes of the 2007–2009 Financial Crisis</i>	214
> MINI-CASE Collateralized Debt Obligations (CDOs)	215
<i>Effects of the 2007–2009 Financial Crisis</i>	216
> INSIDE THE FED Was the Fed to Blame for the Housing Price Bubble?	217
> GLOBAL The European Sovereign Debt Crisis	220
<i>Height of the 2007–2009 Financial Crisis</i>	221
SUMMARY	222
KEY TERMS	223
QUESTIONS	223
WEB EXERCISES	223
WEB REFERENCES	224
PART FOUR CENTRAL BANKING AND THE CONDUCT OF MONETARY POLICY	
Chapter 9 Central Banks	225
PREVIEW	225
Origins of the Central Banking System	226
> GLOBAL Who Should Own Central Banks?	226
Variations in the Functions and Structures of Central Banks	227
<i>The European Central Bank, the Euro System, and the European System of Central Banks</i>	228
<i>Decision-Making Bodies of the ECB</i>	230
<i>How Monetary Policy is Conducted within the ECB</i>	231
> GLOBAL The Importance of the Bundesbank within the ECB	232
> GLOBAL Are Non-Euro Central Banks Constrained by Membership of the EU?	233
<i>The Federal Reserve System</i>	234
<i>Difference between the ECB and the Fed</i>	234
<i>The Bank of England</i>	235
> GLOBAL Brexit and the BoE	236
Structure of Central Banks of Larger Economies	236
<i>The Bank of Canada</i>	237
<i>The Bank of Japan</i>	238
<i>The People's Bank of China</i>	238
Structure and Independence of Central Banks of Emerging Market Economies	239
Central Banks and Independence	240
<i>The Case for Independence</i>	240
<i>The Case Against Independence</i>	240
<i>The Trend Toward Greater Independence</i>	241
SUMMARY	241
KEY TERMS	242
QUESTIONS AND PROBLEMS	242
WEB EXERCISES	243

Chapter 10	Conduct of Monetary Policy	244
	PREVIEW	244
	How Fed Actions Affect Reserves in the Banking System	245
	<i>Open Market Operations</i>	245
	<i>Discount Lending</i>	246
	The Market for Reserves and the Federal Funds Rate	247
	<i>Demand and Supply in the Market for Reserves</i>	247
	<i>How Changes in the Tools of Monetary Policy Affect the Federal Funds Rate</i>	249
	> CASE How the Federal Reserve's Operating Procedures Limit Fluctuations in the Federal Funds Rate	253
	Conventional Monetary Policy Tools	254
	<i>Open Market Operations</i>	254
	> INSIDE THE FED A Day at the Trading Desk	255
	<i>Discount Policy and the Lender of Last Resort</i>	255
	<i>Reserve Requirements</i>	258
	<i>Interest on Reserves</i>	258
	Nonconventional Monetary Policy Tools and Quantitative Easing	258
	<i>Liquidity Provision</i>	259
	> INSIDE THE FED Fed Lending Facilities During the Global Financial Crisis	260
	<i>Large-Scale Asset Purchases</i>	261
	<i>Quantitative Easing Versus Credit Easing</i>	261
	<i>Forward Guidance</i>	263
	<i>Negative Interest Rates on Banks' Deposits</i>	264
	Monetary Policy Tools of the European Central Bank	265
	<i>Open Market Operations</i>	265
	<i>Lending to Banks</i>	265
	<i>Interest on Reserves</i>	266
	<i>Reserve Requirements</i>	266
	The Price Stability Goal and the Nominal Anchor	266
	<i>The Role of a Nominal Anchor</i>	267
	<i>The Time-Inconsistency Problem</i>	267
	Other Goals of Monetary Policy	268
	<i>High Employment and Output Stability</i>	268
	<i>Economic Growth</i>	269
	<i>Stability of Financial Markets</i>	269
	<i>Interest-Rate Stability</i>	269
	<i>Stability in Foreign Exchange Markets</i>	270
	Should Price Stability Be the Primary Goal of Monetary Policy?	270
	<i>Hierarchical vs. Dual Mandates</i>	270
	<i>Price Stability as the Primary, Long-Run Goal of Monetary Policy</i>	271
	> GLOBAL The European Central Bank's Monetary Policy Strategy	272
	Inflation Targeting	272
	<i>Advantages of Inflation Targeting</i>	272
	> INSIDE THE FED Ben Bernanke and the Federal Reserve's Adoption of Inflation Targeting	273
	<i>Disadvantages of Inflation Targeting</i>	274

Should Central Banks Respond to Asset-Price Bubbles?	275
Lessons from the Global Financial Crisis	
<i>Two Types of Asset-Price Bubbles</i>	276
<i>The Debate over Whether Central Banks Should Try to Pop Bubbles</i>	277
> THE PRACTICING MANAGER Using a Fed Watcher	279
SUMMARY	280
KEY TERMS	281
QUESTIONS	282
QUANTITATIVE PROBLEMS	283
WEB EXERCISES	283
PART FIVE FINANCIAL MARKETS	
Chapter 11 The Money Markets	285
PREVIEW	285
The Money Markets Defined	286
<i>Why Do We Need the Money Markets?</i>	286
<i>Money Market Cost Advantages</i>	287
The Purpose of the Money Markets	288
Who Participates in the Money Markets?	289
<i>U.S. Treasury Department</i>	289
<i>Federal Reserve System</i>	289
<i>Commercial Banks</i>	290
<i>Businesses</i>	290
<i>Investment and Securities Firms</i>	291
<i>Individuals</i>	291
Money Market Instruments	292
<i>Treasury Bills</i>	292
> CASE Discounting the Price of Treasury Securities to Pay the Interest	292
> MINI-CASE Treasury Bill Auctions Go Haywire	295
<i>Federal Funds</i>	296
<i>Repurchase Agreements</i>	297
<i>Negotiable Certificates of Deposit</i>	298
<i>Commercial Paper</i>	299
<i>Banker's Acceptances</i>	301
<i>Eurodollars</i>	302
> GLOBAL Ironic Birth of the Eurodollar Market	302
Comparing Money Market Securities	303
<i>Interest Rates</i>	303
<i>Liquidity</i>	304
<i>How Money Market Securities Are Valued</i>	305
SUMMARY	306
KEY TERMS	306
QUESTIONS	306
QUANTITATIVE PROBLEMS	307
WEB EXERCISES	307

Chapter 12	The Bond Market	308
	PREVIEW	308
	Purpose of the Capital Market	309
	Capital Market Participants	309
	Capital Market Trading	310
	Types of Bonds	310
	Treasury Notes and Bonds	310
	<i>Treasury Bond Interest Rates</i>	311
	<i>Treasury Inflation-Protected Securities (TIPS)</i>	313
	<i>Treasury STRIPS</i>	313
	<i>Agency Bonds</i>	313
	> CASE The 2007–2009 Financial Crisis and the Bailout of Fannie Mae and Freddie Mac	314
	Municipal Bonds	315
	<i>Risk in the Municipal Bond Market</i>	317
	Corporate Bonds	317
	<i>Characteristics of Corporate Bonds</i>	318
	<i>Types of Corporate Bonds</i>	320
	Financial Guarantees for Bonds	323
	Oversight of the Bond Markets	324
	Current Yield Calculation	324
	<i>Current Yield</i>	325
	Finding the Value of Coupon Bonds	326
	<i>Finding the Price of Semiannual Bonds</i>	327
	Investing in Bonds	329
	SUMMARY	330
	KEY TERMS	331
	QUESTIONS	331
	QUANTITATIVE PROBLEMS	331
	WEB EXERCISE	332
Chapter 13	The Stock Market	333
	PREVIEW	333
	Investing in Stocks	334
	<i>Common Stock vs. Preferred Stock</i>	334
	<i>How Stocks Are Sold</i>	335
	Computing the Price of Common Stock	339
	<i>The One-Period Valuation Model</i>	339
	<i>The Generalized Dividend Valuation Model</i>	340
	<i>The Gordon Growth Model</i>	341
	<i>Price Earnings Valuation Method</i>	342
	How the Market Sets Security Prices	343
	Errors in Valuation	344
	<i>Problems with Estimating Growth</i>	344
	<i>Problems with Estimating Risk</i>	345
	<i>Problems with Forecasting Dividends</i>	345

> CASE The 2007–2009 Financial Crisis and the Stock Market	346
> CASE The September 11 Terrorist Attack, the Enron Scandal, and the Stock Market	346
Stock Market Indexes	347
> MINI-CASE History of the Dow Jones Industrial Average	347
Buying Foreign Stocks	350
Regulation of the Stock Market	350
<i>The Securities and Exchange Commission</i>	350
SUMMARY	351
KEY TERMS	352
QUESTIONS	352
QUANTITATIVE PROBLEMS	352
WEB EXERCISES	353
Chapter 14 The Mortgage Markets	354
PREVIEW	354
What Are Mortgages?	355
Characteristics of the Residential Mortgage	356
<i>Mortgage Interest Rates</i>	356
> CASE The Discount Point Decision	357
<i>Loan Terms</i>	359
<i>Mortgage Loan Amortization</i>	360
Types of Mortgage Loans	361
<i>Insured and Conventional Mortgages</i>	361
<i>Fixed- and Adjustable-Rate Mortgages</i>	362
<i>Other Types of Mortgages</i>	362
Mortgage-Lending Institutions	364
Loan Servicing	365
> E-FINANCE Borrowers Shop the Web for Mortgages	366
Secondary Mortgage Market	366
Securitization of Mortgages	367
<i>What Is a Mortgage-Backed Security?</i>	367
<i>Types of Pass-Through Securities</i>	369
<i>Subprime Mortgages and CDOs</i>	370
<i>The Real Estate Bubble</i>	371
SUMMARY	372
KEY TERMS	372
QUESTIONS	372
QUANTITATIVE PROBLEMS	373
WEB EXERCISES	374
Chapter 15 The Foreign Exchange Market	375
PREVIEW	375
Foreign Exchange Market	376
<i>What Are Foreign Exchange Rates?</i>	377
<i>Why Are Exchange Rates Important?</i>	377

> FOLLOWING THE FINANCIAL NEWS Foreign Exchange Rates	377
<i>How Is Foreign Exchange Traded?</i>	378
Exchange Rates in the Long Run	378
<i>Law of One Price</i>	379
<i>Theory of Purchasing Power Parity</i>	379
<i>Why the Theory of Purchasing Power Parity Cannot Fully Explain Exchange Rates</i>	381
<i>Factors That Affect Exchange Rates in the Long Run</i>	381
Exchange Rates in the Short Run: A Supply and Demand Analysis	383
<i>Supply Curve for Domestic Assets</i>	383
<i>Demand Curve for Domestic Assets</i>	384
<i>Equilibrium in the Foreign Exchange Market</i>	385
Explaining Changes in Exchange Rates	385
<i>Shifts in the Demand for Domestic Assets</i>	385
<i>Recap: Factors That Change the Exchange Rate</i>	388
> CASE Effect of Changes in Interest Rates on the Equilibrium Exchange Rate	390
> CASE Why Are Exchange Rates So Volatile?	392
> CASE The Dollar and Interest Rates	392
> CASE The Global Financial Crisis and the Dollar	394
> THE PRACTICING MANAGER Profiting from Foreign Exchange Forecasts	395
SUMMARY	396
KEY TERMS	396
QUESTIONS	396
QUANTITATIVE PROBLEMS	397
WEB EXERCISES	398
Chapter 15 Appendix The Interest Parity Condition	399
Comparing Expected Returns on Domestic and Foreign Assets	399
Interest Parity Condition	401
Chapter 16 The International Financial System	403
PREVIEW	403
Intervention in the Foreign Exchange Market	404
<i>Foreign Exchange Intervention and Reserves in the Banking System</i>	404
> INSIDE THE FED A Day at the Federal Reserve Bank of New York's Foreign Exchange Desk	405
<i>Unsterilized Intervention</i>	406
<i>Sterilized Intervention</i>	406
Balance of Payments	408
> GLOBAL Why the Large U.S. Current Account Deficit Worries Economists	409
Exchange Rate Regimes in the International Financial System	409
<i>Fixed Exchange Rate Regimes</i>	409
<i>How a Fixed Exchange Rate Regime Works</i>	410
<i>The Policy Trilemma</i>	412
<i>Monetary Unions</i>	413

> GLOBAL Will the Euro Survive?	414
<i>Currency Boards and Dollarization</i>	414
<i>Speculative Attacks</i>	414
> GLOBAL Argentina's Currency Board	415
<i>Managed Float</i>	415
> GLOBAL Dollarization	416
> CASE The Foreign Exchange Crisis of September 1992	416
> THE PRACTICING MANAGER Profiting from a Foreign Exchange Crisis	418
> CASE How Did China Accumulate over \$3 Trillion of International Reserves?	419
Capital Controls	420
<i>Controls on Capital Outflows</i>	420
<i>Controls on Capital Inflows</i>	420
The Role of the IMF	421
<i>Should the IMF Be an International Lender of Last Resort?</i>	421
SUMMARY	422
KEY TERMS	422
QUESTIONS	423
QUANTITATIVE PROBLEMS	424
WEB EXERCISE	424

PART SIX THE FINANCIAL INSTITUTIONS INDUSTRY

Chapter 17 Banking and the Management of Financial Institutions	425
PREVIEW	425
The Bank Balance Sheet	426
<i>Liabilities</i>	426
<i>Assets</i>	428
Basic Banking	429
General Principles of Bank Management	432
<i>Liquidity Management and the Role of Reserves</i>	432
<i>Asset Management</i>	435
<i>Liability Management</i>	436
<i>Capital Adequacy Management</i>	437
> THE PRACTICING MANAGER Strategies for Managing Bank Capital	439
> CASE How a Capital Crunch Caused a Credit Crunch During the Global Financial Crisis	440
Off-Balance-Sheet Activities	440
<i>Loan Sales</i>	441
<i>Generation of Fee Income</i>	441
<i>Trading Activities and Risk Management Techniques</i>	441
> CONFLICTS OF INTEREST Barings, Daiwa, Sumitomo, Société Générale, and J.P. Morgan Chase: Rogue Traders and the Principal-Agent Problem	442
Measuring Bank Performance	443
<i>Bank's Income Statement</i>	444
<i>Measures of Bank Performance</i>	446
<i>Recent Trends in Bank Performance Measures</i>	446

SUMMARY	448
KEY TERMS	449
QUESTIONS	449
QUANTITATIVE PROBLEMS	449
WEB EXERCISES	450
Chapter 18 Financial Regulation	451
PREVIEW	451
Asymmetric Information as a Rationale for Financial Regulation	452
<i>Government Safety Net</i>	452
> GLOBAL The Spread of Government Deposit Insurance Throughout the World: Is This a Good Thing?	454
Types of Financial Regulation	457
<i>Restrictions on Asset Holdings</i>	457
<i>Capital Requirements</i>	458
<i>Prompt Corrective Action</i>	459
<i>Financial Supervision: Chartering and Examination</i>	459
> GLOBAL Where Is the Basel Accord Heading After the Global Financial Crisis?	460
<i>Assessment of Risk Management</i>	461
<i>Disclosure Requirements</i>	462
<i>Consumer Protection</i>	463
> MINI-CASE Mark-to-Market Accounting and the Global Financial Crisis	464
<i>Restrictions on Competition</i>	464
> MINI-CASE The Global Financial Crisis and Consumer Protection Regulation	465
<i>Macroprudential Versus Microprudential Supervision</i>	466
> E-FINANCE Electronic Banking: New Challenges for Bank Regulation	466
<i>Summary</i>	467
> GLOBAL International Financial Regulation	468
Banking Crises Throughout the World in Recent Years	471
<i>“Déjà Vu All Over Again”</i>	471
The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010	473
<i>Dodd-Frank</i>	473
Too-Big-to-Fail and Future Regulation	474
<i>What Can Be Done About the Too-Big-to-Fail Problem?</i>	474
<i>Other Issues for Future Regulation</i>	475
SUMMARY	476
KEY TERMS	477
QUESTIONS	477
QUANTITATIVE PROBLEMS	477
WEB EXERCISES	478
WEB APPENDIX	478
Chapter 19 Banking Industry: Structure and Competition	479
PREVIEW	479
Historical Development of the Banking System	480
<i>Multiple Regulatory Agencies</i>	482

Financial Innovation and the Growth of the Shadow Banking System	482
<i>Responses to Changes in Demand Conditions: Interest Rate Volatility</i>	483
<i>Responses to Changes in Supply Conditions: Information Technology</i>	484
> E-FINANCE Will “Clicks” Dominate “Bricks” in the Banking Industry?	486
> E-FINANCE Why Are Scandinavians So Far Ahead of Americans in Using Electronic Payments and Online Banking?	487
> E-FINANCE Are We Headed for a Cashless Society?	488
<i>Securitization and the Shadow Banking System</i>	489
<i>Avoidance of Existing Regulations</i>	491
> MINI-CASE Bruce Bent and the Money Market Mutual Fund Panic of 2008	493
> THE PRACTICING MANAGER Profiting from a New Financial Product: A Case Study of Treasury Strips	493
<i>Financial Innovation and the Decline of Traditional Banking</i>	495
Structure of the U.S. Banking Industry	498
<i>Restrictions on Branching</i>	499
<i>Response to Branching Restrictions</i>	500
Bank Consolidation and Nationwide Banking	501
> E-FINANCE Information Technology and Bank Consolidation	503
<i>The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994</i>	503
<i>What Will the Structure of the U.S. Banking Industry Look Like in the Future?</i>	504
<i>Are Bank Consolidation and Nationwide Banking Good Things?</i>	504
Separation of the Banking and Other Financial Service Industries	505
<i>Erosion of Glass-Steagall</i>	505
<i>The Gramm-Leach-Bliley Financial Services Modernization Act of 1999: Repeal of Glass-Steagall</i>	506
<i>Implications for Financial Consolidation</i>	506
> MINI-CASE The Global Financial Crisis and the Demise of Large, Free-Standing Investment Banks	507
<i>Separation of Banking and Other Financial Services Industries Throughout the World</i>	507
Thrift Industry	508
<i>Savings and Loan Associations</i>	508
<i>Mutual Savings Banks</i>	508
<i>Credit Unions</i>	509
International Banking	509
<i>Eurodollar Market</i>	510
<i>Structure of U.S. Banking Overseas</i>	510
<i>Foreign Banks in the United States</i>	511
SUMMARY	512
KEY TERMS	513
QUESTIONS	513
WEB EXERCISES	514
Chapter 20 The Mutual Fund Industry	515
PREVIEW	515
The Growth of Mutual Funds	516
<i>The First Mutual Funds</i>	516

Benefits of Mutual Funds	516
<i>Ownership of Mutual Funds</i>	517
Mutual Fund Structure	520
<i>Open- Versus Closed-End Funds</i>	520
> CASE Calculating a Mutual Fund's Net Asset Value	521
<i>Organizational Structure</i>	522
Investment Objective Classes	522
<i>Equity Funds</i>	522
<i>Bond Funds</i>	524
<i>Hybrid Funds</i>	525
<i>Money Market Funds</i>	525
<i>Index Funds</i>	527
Fee Structure of Investment Funds	528
Regulation of Mutual Funds	529
Hedge Funds	530
> MINI-CASE The Long Term Capital Debacle	532
Conflicts of Interest in the Mutual Fund Industry	533
<i>Sources of Conflicts of Interest</i>	533
<i>Mutual Fund Abuses</i>	533
> CONFLICTS OF INTEREST Many Mutual Funds Are Caught Ignoring Ethical Standards	534
> CONFLICTS OF INTEREST SEC Survey Reports Mutual Fund Abuses Widespread	535
<i>Government Response to Abuses</i>	536
SUMMARY	537
KEY TERMS	537
QUESTIONS	537
QUANTITATIVE PROBLEMS	538
WEB EXERCISES	539
Chapter 21 Insurance Companies and Pension Funds	540
PREVIEW	540
Insurance Companies	541
Fundamentals of Insurance	541
<i>Adverse Selection and Moral Hazard in Insurance</i>	542
<i>Selling Insurance</i>	543
> MINI-CASE Insurance Agent: The Customer's Ally	543
Growth and Organization of Insurance Companies	544
Types of Insurance	544
<i>Life Insurance</i>	545
<i>Health Insurance</i>	549
<i>Property and Casualty Insurance</i>	551
<i>Insurance Regulation</i>	552
> THE PRACTICING MANAGER Insurance Management	553
<i>Screening</i>	553
<i>Risk-Based Premium</i>	554
<i>Restrictive Provisions</i>	554

<i>Prevention of Fraud</i>	554
<i>Cancellation of Insurance</i>	555
<i>Deductibles</i>	555
<i>Coinsurance</i>	555
<i>Limits on the Amount of Insurance</i>	555
<i>Summary</i>	556
<i>Credit Default Swaps</i>	556
> CONFLICTS OF INTEREST The AIG Blowup	557
Pensions	557
> CONFLICTS OF INTEREST The Subprime Financial Crisis and the Monoline Insurers	558
Types of Pensions	558
<i>Defined-Benefit Pension Plans</i>	558
<i>Defined-Contribution Pension Plans</i>	559
<i>Private and Public Pension Plans</i>	560
> MINI-CASE Power to the Pensions	560
Regulation of Pension Plans	564
<i>Employee Retirement Income Security Act</i>	564
<i>Individual Retirement Plans</i>	566
The Future of Pension Funds	566
SUMMARY	567
KEY TERMS	567
QUESTIONS	567
QUANTITATIVE PROBLEMS	568
WEB EXERCISES	569
Chapter 22 Investment Banks, Security Brokers and Dealers, and Venture Capital Firms	570
PREVIEW	570
Investment Banks	571
<i>Background</i>	571
<i>Underwriting Stocks and Bonds</i>	572
<i>Equity Sales</i>	576
<i>Mergers and Acquisitions</i>	577
Securities Brokers and Dealers	578
<i>Brokerage Services</i>	579
<i>Securities Dealers</i>	581
> MINI-CASE Example of Using the Limit-Order Book	582
Regulation of Securities Firms	582
Relationship Between Securities Firms and Commercial Banks	584
Private Equity Investment	584
<i>Venture Capital Firms</i>	584
> E-FINANCE Venture Capitalists Lose Focus with Internet Companies	589
Private Equity Buyouts	589
<i>Advantages to Private Equity Buyouts</i>	589
<i>Life Cycle of the Private Equity Buyout</i>	590

SUMMARY	590
KEY TERMS	591
QUESTIONS	591
QUANTITATIVE PROBLEMS	592
WEB EXERCISES	593
PART SEVEN THE MANAGEMENT OF FINANCIAL INSTITUTIONS	
Chapter 23 Risk Management in Financial Institutions	594
PREVIEW	594
Managing Credit Risk	595
<i>Screening and Monitoring</i>	595
<i>Long-Term Customer Relationships</i>	596
<i>Loan Commitments</i>	597
<i>Collateral</i>	597
<i>Compensating Balances</i>	598
<i>Credit Rationing</i>	598
Managing Interest-Rate Risk	599
<i>Income Gap Analysis</i>	600
<i>Duration Gap Analysis</i>	602
<i>Example of a Nonbanking Financial Institution</i>	607
<i>Some Problems with Income Gap and Duration Gap Analyses</i>	609
> THE PRACTICING MANAGER Strategies for Managing Interest-Rate Risk	610
SUMMARY	611
KEY TERMS	611
QUESTIONS	611
QUANTITATIVE PROBLEMS	612
WEB EXERCISES	614
Chapter 24 Hedging with Financial Derivatives	615
PREVIEW	615
Hedging	616
Forward Markets	616
> THE PRACTICING MANAGER Hedging Interest-Rate Risk with Forward Contracts	616
<i>Interest-Rate Forward Contracts</i>	616
<i>Pros and Cons of Forward Contracts</i>	617
Financial Futures Markets	618
<i>Financial Futures Contracts</i>	618
> FOLLOWING THE FINANCIAL NEWS Financial Futures	619
> THE PRACTICING MANAGER Hedging with Financial Futures	620
<i>Organization of Trading in Financial Futures Markets</i>	622
<i>Globalization of Financial Futures Markets</i>	622
<i>Explaining the Success of Futures Markets</i>	623
> MINI-CASE The Hunt Brothers and the Silver Crash	625

> THE PRACTICING MANAGER Hedging Foreign Exchange Risk with Forward and Futures Contracts	626
Hedging Foreign Exchange Risk with Forward Contracts	626
Hedging Foreign Exchange Risk with Futures Contracts	627
Stock Index Futures	627
<i>Stock Index Futures Contracts</i>	628
> FOLLOWING THE FINANCIAL NEWS Stock Index Futures	628
> THE PRACTICING MANAGER Hedging with Stock Index Futures	629
Options	630
<i>Option Contracts</i>	630
<i>Profits and Losses on Option and Futures Contracts</i>	631
<i>Factors Affecting the Prices of Option Premiums</i>	634
<i>Summary</i>	635
> THE PRACTICING MANAGER Hedging with Futures Options	635
Interest-Rate Swaps	637
<i>Interest-Rate Swap Contracts</i>	637
> THE PRACTICING MANAGER Hedging with Interest-Rate Swaps	638
<i>Advantages of Interest-Rate Swaps</i>	639
<i>Disadvantages of Interest-Rate Swaps</i>	639
<i>Financial Intermediaries in Interest-Rate Swaps</i>	640
Credit Derivatives	640
<i>Credit Options</i>	641
<i>Credit Swaps</i>	641
<i>Credit-Linked Notes</i>	642
> CASE Lessons from the Global Financial Crisis: When Are Financial Derivatives Likely to Be a Worldwide Time Bomb?	642
SUMMARY	644
KEY TERMS	644
QUESTIONS	645
QUANTITATIVE PROBLEMS	645
WEB EXERCISE	647
WEB APPENDICES	647
<i>Glossary</i>	649
<i>Index</i>	667

Contents on the Web

The following updated chapters and appendices are available on our Companion Website at www.pearsonglobaleditions.com/Mishkin.

Chapter 25	Financial Crises in Emerging Market Economies	W-1
	PREVIEW	W-1
	Dynamics of Financial Crises in Emerging Market Economies	W-2
	<i>Stage One: Initial Phase</i>	W-3
	<i>Stage Two: Currency Crisis</i>	W-5
	<i>Stage Three: Full-Fledged Financial Crisis</i>	W-6
	> CASE Crisis in South Korea, 1997–1998	W-7
	<i>Financial Liberalization/Globalization Mismanaged</i>	W-7
	<i>Perversion of the Financial Liberalization/Globalization Process: Chaebols and the South Korean Crisis</i>	W-9
	<i>Stock Market Decline and Failure of Firms Increase Uncertainty</i>	W-10
	<i>Adverse Selection and Moral Hazard Problems Worsen and the Economy Contracts</i>	W-10
	<i>Currency Crisis Ensues</i>	W-11
	<i>Final Stage: Currency Crisis Triggers Full-Fledged Financial Crisis</i>	W-11
	<i>Recovery Commences</i>	W-13
	> CASE The Argentine Financial Crisis, 2001–2002	W-13
	<i>Severe Fiscal Imbalances</i>	W-13
	<i>Adverse Selection and Moral Hazard Problems Worsen</i>	W-14
	<i>Bank Panic Begins</i>	W-14
	<i>Currency Crisis Ensues</i>	W-14
	<i>Currency Crisis Triggers Full-Fledged Financial Crisis</i>	W-16
	<i>Recovery Begins</i>	W-17
	Preventing Emerging Market Financial Crises	W-18
	<i>Beef Up Prudential Regulation and Supervision of Banks</i>	W-18
	> GLOBAL When an Advanced Economy Is Like an Emerging Market Economy: The Icelandic Financial Crisis of 2008	W-19
	<i>Encourage Disclosure and Market-Based Discipline</i>	W-20
	<i>Limit Currency Mismatch</i>	W-20
	<i>Sequence Financial Liberalization</i>	W-20
	SUMMARY	W-21
	KEY TERMS	W-21
	QUESTIONS	W-21
Chapter 26	Savings Associations and Credit Unions	W-22
	PREVIEW	W-22
	Mutual Savings Banks	W-23

Savings and Loan Associations	W-24
<i>Mutual Savings Banks and Savings and Loans Compared</i>	W-24
Savings and Loans in Trouble: The Thrift Crisis	W-25
<i>Later Stages of the Crisis: Regulatory Forbearance</i>	W-26
<i>Competitive Equality in Banking Act of 1987</i>	W-27
Political Economy of the Savings and Loan Crisis	W-28
<i>Principal-Agent Problem for Regulators and Politicians</i>	W-28
> CASE Principal-Agent Problem in Action: Charles Keating and the Lincoln Savings and Loan Scandal	W-29
Savings and Loan Bailout: Financial Institutions Reform, Recovery, and Enforcement Act of 1989	W-30
The Savings and Loan Industry Today	W-32
<i>Number of Institutions</i>	W-32
<i>S&L Size</i>	W-32
<i>S&L Assets</i>	W-33
<i>S&L Liabilities and Net Worth</i>	W-35
<i>Capital</i>	W-35
<i>Profitability and Health</i>	W-35
<i>The Future of the Savings and Loan Industry</i>	W-36
Credit Unions	W-37
<i>History and Organization</i>	W-38
<i>Sources of Funds</i>	W-42
<i>Uses of Funds</i>	W-44
<i>Advantages and Disadvantages of Credit Unions</i>	W-44
<i>The Future of Credit Unions</i>	W-45
SUMMARY	W-46
KEY TERMS	W-47
QUESTIONS	W-47
WEB EXERCISES	W-48
Chapter 27 Finance Companies	W-49
PREVIEW	W-49
History of Finance Companies	W-50
Purpose of Finance Companies	W-50
Risk in Finance Companies	W-51
Types of Finance Companies	W-52
<i>Business (Commercial) Finance Companies</i>	W-52
<i>Consumer Finance Companies</i>	W-54
<i>Sales Finance Companies</i>	W-56
Regulation of Finance Companies	W-56
Finance Company Balance Sheet	W-57
<i>Assets</i>	W-57
<i>Liabilities</i>	W-57
<i>Income</i>	W-58
<i>Finance Company Growth</i>	W-58

SUMMARY	W-59
KEY TERMS	W-60
QUESTIONS	W-60
WEB EXERCISES	W-60

CHAPTER APPENDICES

Chapter 4	Appendix 1: Models of Asset Pricing	W-1
Chapter 4	Appendix 2: Applying the Asset Market Approach to a Commodity Market: The Case of Gold	W-11
Chapter 4	Appendix 3: Loanable Funds Framework	W-15
Chapter 4	Appendix 4: Supply and Demand in the Market for Money: The Liquidity Preference Framework	W-19
Chapter 18	Appendix: Banking Crises Throughout the World	W-31
Chapter 24	Appendix: More on Hedging with Financial Derivatives	W-37