



Australia • Brazil • Mexico • Singapore • United Kingdom • United States

Brief Contents

Preface, xxv About the Author, xxxii	
PART 1: Overview of the Financial Environment 1 1 Role of Financial Markets and Institutions 3 2 Determination of Interest Rates 29 3 Structure of Interest Rates 49	
 PART 2: The Fed and Monetary Policy 79 Functions of the Fed 81 Monetary Policy 103 	
PART 3: Debt Security Markets 133 6 Money Markets 135 7 Bond Markets 163 8 Bond Valuation and Risk 189 9 Mortgage Markets 223	
PART 4: Equity Markets 247 10 Stock Offerings and Investor Monitoring 249 11 Stock Valuation and Risk 281 12 Market Microstructure and Strategies 319	
PART 5: Derivative Security Markets 341 13 Financial Futures Markets 343 14 Option Markets 369 15 Swap Markets 409 16 Foreign Exchange Derivative Markets 439	
PART 6: Commercial Banking 473 17 Commercial Bank Operations 475 18 Bank Regulation 497 19 Bank Management 521 20 Bank Performance 551	
 PART 7: Nonbank Operations 571 21 Thrift Operations 573 22 Finance Company Operations 597 23 Mutual Fund Operations 609 24 Securities Operations 641 25 Insurance and Pension Fund Operations 667 	
Appendix A: Comprehensive Project 705 Appendix B: Using Excel to Conduct Analyses 715 Glossary 719 Index 730	

Contents

PART 1: Overview of the Financial Environment	1
1: ROLE OF FINANCIAL MARKETS AND INSTITUTIONS	3
1-1 Role of Financial Markets, 3	
1-1a Accommodating Corporate Finance Needs, 4	
1-1b Accommodating Investment Needs, 4	
1-1c Primary versus Secondary Markets, 4	
1-2 Securities Traded in Financial Markets, 5	
1-2a Money Market Securities, 5	
1-2b Capital Market Securities, 5	
1-2c Derivative Securities, 7	
1-2d Valuation of Securities, 8	
1-2e Securities Regulations, 10	
1-2f International Securities Transactions, 11	
1-2g Government Intervention in Financial Markets, 11	
1-3 Role of Financial Institutions, 12	
1-3a Role of Depository Institutions, 12	
1-3b Role of Nondepository Financial Institutions, 13	
1-3c Comparison of Roles among Financial Institutions, 15	
1-3d How the Internet Facilitates Roles of Financial Institutions, 16	
1-3e Relative Importance of Financial Institutions, 16	
1-3f Consolidation of Financial Institutions, 16	
1-4 Credit Crisis for Financial Institutions, 19	
1-4a Systemic Risk during the Credit Crisis, 19	
1-4b Government Response to the Credit Crisis, 20	
1-4c Conclusion about Government Response to the Credit Crisis, 21	
Term Paper on the Credit Crisis, 26	
2: DETERMINATION OF INTEREST RATES	29
2-1 Loanable Funds Theory, 29	
2-1a Household Demand for Loanable Funds, 30	
2-1b Business Demand for Loanable Funds, 30	
2-1c Government Demand for Loanable Funds, 32	
2-1d Foreign Demand for Loanable Funds, 32	
2-1e Aggregate Demand for Loanable Funds, 33	
2-1f Supply of Loanable Funds, 33	
2-1g Equilibrium Interest Rate, 35	
2-2 Factors That Affect Interest Rates, 37	
2-2a Impact of Economic Growth on Interest Rates, 37	

2-2b Impact of Inflation on Interest Rates, 38	
2-2c Impact of Monetary Policy on Interest Rates, 39	
2-2d Impact of the Budget Deficit on Interest Rates, 40	
2-2e Impact of Foreign Flows of Funds on Interest Rates, 40	
2-2f Summary of Forces That Affect Interest Rates, 41	
2-3 Forecasting Interest Rates, 44	
2. CTRUCTURE OF INTEREST DATES	40
3: STRUCTURE OF INTEREST RATES	49
3-1 Why Debt Security Yields Vary, 49	
3-1a Credit (Default) Risk, 49	
3-1b Assessing Credit Risk, 50	
3-1c Liquidity, 52	
3-1d Tax Status, 52	
3-1e Term to Maturity, 53	
3-2 Explaining Actual Yield Differentials, 54	
3-2a Yield Differentials of Money Market Securities, 54	
3-2b Yield Differentials of Capital Market Securities, 54	
3-3 Estimating the Appropriate Yield, 55	
3-4 A Closer Look at the Term Structure, 57	
3-4a Pure Expectations Theory, 57	
3-4b Liquidity Premium Theory, 62	
3-4c Segmented Markets Theory, 64	
3-4d Research on Term Structure Theories, 65	
3-5 Integrating the Theories of Term Structure, 65	
3-5a Use of the Term Structure, 66	
3-5b Why the Slope of the Yield Curve Changes, 68	
3-5c How the Yield Curve Has Changed over Time, 69	
3-5d International Structure of Interest Rates, 69	
Part 1 Integrative Problem: Interest Rate Forecasts and Investment Decisions, 77	
PART 2: The Fed and Monetary Policy	79
4: FUNCTIONS OF THE FED	81
	0
4-1 Overview, 81	
4-2 Organizational Structure of the Fed, 81 4-2a Federal Reserve District Banks, 82	
4-2b Member Banks, 82	
4-2c Board of Governors, 82	
4-2d Federal Open Market Committee, 84	
4-2a Advisory Committees, 84	
4-2f Integration of Federal Reserve Components, 84	
4-2g Consumer Financial Protection Bureau, 84	
4-3 How the Fed Controls Money Supply, 84	
4-3a Open Market Operations, 85	
4-3b Role of the Fed's Trading Desk, 88	
4-3c How Fed Operations Affect All Interest Rates, 90 4-3d Adjusting the Reserve Requirement Ratio, 91	
4-3a Adjusting the Reserve Requirement Ratio, 91 4-3e Adjusting the Fed's Loan Rate, 92	
1 SO TIMINSHITY HIG I ON S LOUIT IMIG. 14	

4-4 The Fed's Intervention during the Credit Crisis, 93	
4-4a Fed Loans to Facilitate Rescue of Bear Stearns, 94	
4-4b Fed Purchases of Mortgage-Backed Securities, 94	
4-4c Fed's Purchase of Bonds Backed by Loans, 94	
4-4d Fed's Purchase of Commercial Paper, 94	
4-4e Fed's Purchase of Long-term Treasury Securities, 95	
4-4f Perception of Fed Intervention During the Crisis, 95	
4-5 Global Monetary Policy, 96	
4-5a A Single Eurozone Monetary Policy, 96	
4-5b Global Central Bank Coordination, 97	
F. HONETARY POLICY	403
5: MONETARY POLICY	103
5-1 Mechanics of Monetary Policy, 103	
5-1a Monitoring Indicators of Economic Growth, 103	
5-1b Monitoring Indicators of Inflation, 105	
5-2 Implementing Monetary Policy, 105	
5-2a Effects of a Stimulative Monetary Policy, 105	
5-2b Fed's Policy Focuses on Long-term Maturities, 109	
5-2c Why a Stimulative Monetary Policy Might Fail, 109	
5-2d Effects of Restrictive Monetary Policy, 112	
5-2e Summary of Monetary Policy Effects, 113	
5-3 Trade-off in Monetary Policy, 114	
5-3a Impact of Other Forces on the Trade-off, 115	
5-3b Shifts in Monetary Policy over Time, 116	
5-3c How Monetary Policy Responds to Fiscal Policy, 117	
5-3d Proposals to Focus on Inflation, 118	
5-4 Monitoring the Impact of Monetary Policy, 119	
5-4a Impact on Financial Markets, 119	
5-4b Impact on Financial Institutions, 123	
5-5 Global Monetary Policy, 123	
5-5a Impact of the Dollar, 123	
5-5b Impact of Global Economic Conditions, 123	
5-5c Transmission of Interest Rates, 123	
5-5d Impact of the Crisis in Greece on European Monetary Policy, 124	
Part 2 Integrative Problem: Fed Watching, 130	
Tare 2 mees, acree 1705tem 1 ee Watermis, 150	
PART 3: Debt Security Markets	133
C. HONEY HARVETS	425
6: MONEY MARKETS	135
6-1 Money Market Securities, 135	
6-1a Treasury Bills, 136	
6-1b Treasury Bill Auction, 138	
6-1c Commercial Paper, 139	
6-1d Negotiable Certificates of Deposit, 142	
6-1e Repurchase Agreements, 143	
Using the Wall Street Journal: Key Interest Rates, 144	
6-1f Federal Funds, 145	
6-1g Banker's Acceptances, 146	
6-2 Institutional Use of Money Markets, 147	

6-3 Valuation of Money Market Securities, 149	
6-3a Impact of Changes in Credit Risk, 150	
6-3b Interest Rate Risk, 153	
6-4 Globalization of Money Markets, 154	
6-4a Eurodollar Securities, 155	
6-4b International Interbank Market, 156	
6-4c Performance of Foreign Money Market Securities, 157	
7: BOND MARKETS	163
7-1 Background on Bonds, 163	.00
7-1a Institutional Participation in Bond Markets, 163	
7-1b Bond Yields, 165	
7-2 Treasury and Federal Agency Bonds, 165	
7-2a Treasury Bond Auctions, 166	
7-2b Trading Treasury Bonds, 166	
7-2c Stripped Treasury Bonds, 167	
7-2d Inflation-Indexed Treasury Bonds, 167	
7-2e Savings Bonds, 168	
7-2f Federal Agency Bonds, 168	
7-3 Municipal Bonds, 169	
7-3a Credit Risk of Municipal Bonds, 169	
7-3b Variable-Rate Municipal Bonds, 170	
7-3c Tax Advantages of Municipal Bonds, 170	
7-3d Trading and Quotations of Municipal Bonds, 170	
7-3e Yields Offered on Municipal Bonds, 171	
7-4 Corporate Bonds, 172	
7-4a Corporate Bond Offerings, 172	
Using the Wall Street Journal: Bond Yield Quotations, 173	
7-4b Secondary Market for Corporate Bonds, 176	
7-4c Characteristics of Corporate Bonds, 177	
7-4d How Corporate Bonds Finance Restructuring, 179	
7-5 Globalization of Bond Markets, 180	
7-5a Global Government Debt Markets, 180	
7-5b Eurobond Market, 181	
7-6 Other Types of Long-term Debt Securities, 182	
7-6a Structured Notes, 182	
7-6b Exchange-Traded Notes, 183	
7-6c Auction-Rate Securities, 183	
8: BOND VALUATION AND RISK	189
8-1 Bond Valuation Process, 189	
8-1a Impact of the Discount Rate on Bond Valuation, 190	
8-1b Impact of the Timing of Payments on Bond Valuation, 191	
8-1c Valuation of Bonds with Semiannual Payments, 191	
8-1d Relationships between Coupon Rate, Required Return, and Bond Price, 192	
8-2 Explaining Bond Price Movements, 193	
8-2a Factors That Affect the Risk-Free Rate, 194	
8-2b Factors That Affect the Credit (Default) Risk Premium, 196	
8-2c Summary of Factors Affecting Bond Prices, 197	
8-2d Implications for Financial Institutions, 198	

8-3 Sensitivity of Bond Prices to Interest Rate Movements, 199	
8-3a Bond Price Elasticity, 199	
8-3b Duration, 201	
8-4 Bond Investment Strategies, 205	
8-4a Matching Strategy, 205	
8-4b Laddered Strategy, 205	
8-4c Barbell Strategy, 205	
8-4d Interest Rate Strategy, 205	
8-5 Valuation and Risk of International Bonds, 206	
8-5a Influence of Foreign Interest Rate Movements, 207	
8-5b Influence of Credit Risk, 207	
8-5c Influence of Exchange Rate Fluctuations, 207	
8-5d International Bond Diversification, 208	
8-5e European Debt Crisis, 209	
Appendix 8: Forecasting Bond Prices and Yields, 217	
9: MORTGAGE MARKETS	223
9-1 Background on Mortgages, 223	
9-1a How Mortgage Markets Facilitate the Flow of Funds, 223	
9-1b Criteria Used to Measure Creditworthiness, 225	
9-1c Classifications of Mortgages, 225	
9-2 Types of Residential Mortgages, 226	
9-2a Fixed-Rate Mortgages, 226	
9-2b Adjustable-Rate Mortgages, 228	
9-2c Graduated-Payment Mortgages, 229	
9-2d Growing-Equity Mortgages, 229	
9-2e Second Mortgages, 229	
9-2f Shared-Appreciation Mortgages, 229	
9-2g Balloon-Payment Mortgages, 229	
9-3 Valuation and Risk of Mortgages, 229	
9-3a Risk from Investing in Mortgages, 230	
9-4 Mortgage-Backed Securities, 231	
9-4a The Securitization Process, 231	
9-4b Types of Mortgage-Backed Securities, 231	
9-4c Valuation of Mortgage-Backed Securities, 234	
9-5 Mortgage Credit Crisis, 234	
9-5a Impact of the Credit Crisis on Fannie Mae and Freddie Mac, 235	
9-5b Systemic Risk Due to the Credit Crisis, 236	
9-5c Who Is to Blame?, 237	
9-5d Government Programs Implemented in Response to the Crisis, 239	
9-5e Government Bailout of Financial Institutions, 239	
9-5f Financial Reform Act, 240	
Part 3 Integrative Problem: Asset Allocation, 245	
DART 4: Equity Markets	247
PART 4: Equity Markets	
10: STOCK OFFERINGS AND INVESTOR MONITORING	249
10-1 Private Equity, 249	
10-1a Financing by Venture Capital Funds, 249	
10-1b Financing by Private Equity Funds, 250	

10-2 Public Equity, 251	
10-2a Ownership and Voting Rights, 252	
10-2b Preferred Stock, 252	
10-2c Participation in Stock Markets, 253	
10-2d How Investor Decisions Affect Stock Prices, 254	
10-2e Investor Reliance on Information, 254	
10-3 Initial Public Offerings, 254	
10-3a Process of Going Public, 255	
10-3b Underwriter Efforts to Ensure Price Stability, 257	
10-3c Timing of IPOs, 257	
10-3d Initial Returns of IPOs, 257	
10-3e Flipping Shares, 258	
10-3f Google's IPO, 258	
10-3g Facebook's IPO, 259	
10-3h Abuses in the IPO Market, 260	
10-3i Long-Term Performance Following IPOs, 261	
10-4 Stock Offerings and Repurchases, 261	
10-4a Secondary Stock Offerings, 261	
10-4b Stock Repurchases, 262	
10-5 Stock Exchanges, 262	
10-5a Organized Exchanges, 262	
10-5b Over-the-Counter Market, 263	
10-5c Extended Trading Sessions, 264	
10-5d Stock Quotations Provided by Exchanges, 264	
Using the Wall Street Journal: Late Trading, 266	
10-5e Stock Index Quotations, 267	
10-5f Private Stock Exchanges, 267	
10-6 Monitoring Publicly Traded Companies, 268	
10-6a Role of Analysts, 269	
10-6b Accounting Irregularities, 269	
10-6c Sarbanes-Oxley Act, 269	
10-6d Shareholder Activism, 270	
10-6e Limited Power of Governance, 271	
10-7 Market for Corporate Control, 272	
10-7a Use of LBOs to Achieve Corporate Control, 272	
10-7b Barriers to the Market for Corporate Control, 273	
10-8 Globalization of Stock Markets, 273	
10-8a Privatization, 273	
10-8b Emerging Stock Markets, 274	
10-8c Variation in Characteristics across Stock Markets, 274	
10-8d Methods Used to Invest in Foreign Stocks, 275	
11: STOCK VALUATION AND RISK	28
11-1 Stock Valuation Methods, 281	
11-1a Price-Earnings Method, 281	
11-1b Dividend Discount Model, 282	

11-1c Adjusted Dividend Discount Model, 283

11-1d Free Cash Flow Model, 284

11-2a Capital Asset Pricing Model, 285	
11-3 Factors That Affect Stock Prices, 286	
11-3a Economic Factors, 286	
11-3b Market-Related Factors, 288	
11-3c Firm-Specific Factors, 289	
11-3d Tax Effects, 289	
Using the Wall Street Journal: Biggest Stock Gains and Losses, 290	
11-3e Integration of Factors Affecting Stock Prices, 290	
11-4 Stock Risk, 292	
11-4a Volatility of a Stock, 292	
11-4b Beta of a Stock, 295	
11-4c Value at Risk, 295	
11-5 Risk-Adjusted Stock Performance, 298	
11-5a Sharpe Index, 298	
11-5b Treynor Index, 299	
11-6 Stock Market Efficiency, 300	
11-6a Forms of Efficiency, 300	
11-6b Tests of the Efficient Market Hypothesis, 300	
11-7 Foreign Stock Valuation and Performance, 301	
11-7a Valuation of Foreign Stocks, 301	
11-7b International Market Efficiency, 302	
11-7c Measuring Performance from Investing in Foreign Stocks, 302	
11-7d Performance from Global Diversification, 303	
Appendix 11: The Link Between Accounting and Stock Valuation, 310	
12: MARKET MICROSTRUCTURE AND STRATEGIES	319
12-1 Stock Market Transactions, 319	
12-1a Placing an Order, 319	
12-1b Margin Trading, 320	
12-1c Short Selling, 322	
Using the Wall Street Journal: Short Selling, 324	
12-2 How Stock Transactions Are Executed, 326	
12-2a Floor Brokers, 326	
12-2b Market-Makers, 326	
12-2c The Spread on Stock Transactions, 327	
12-2d Electronic Communication Networks, 328	
12-2e Program Trading, 330	
12-3 Regulation of Stock Trading, 331	
12-3a Circuit Breakers, 331	
12-3b Trading Halts, 331	
12-3c Taxes Imposed on Stock Transactions, 332	
12-3d Securities and Exchange Commission, 332	
12-4 Trading International Stocks, 334	
12-4a Reduction in Transaction Costs, 334	
12-4b Reduction in Information Costs, 335	
12-4c Reduction in Exchange Rate Risk, 335	

PART 5: Derivative Security Markets	341
13: FINANCIAL FUTURES MARKETS 13-1 Background on Financial Futures, 343 13-1a Popular Futures Contracts, 343 13-1b Markets for Financial Futures, 343 13-1c Purpose of Trading Financial Futures, 344 13-1d Institutional Trading of Futures Contracts, 345 13-1e Trading Process, 345 13-1f Trading Requirements, 346 Using the Wall Street Journal: Interest Rate Futures, 346	343
13-2 Interest Rate Futures Contracts, 347	
13-2a Valuing Interest Rate Futures, 348 13-2b Speculating in Interest Rate Futures, 349 13-2c Hedging with Interest Rate Futures, 351 13-3 Stock Index Futures, 354 13-3a Valuing Stock Index Futures, 354	
13-3b Speculating in Stock Index Futures, 355	
Using the Wall Street Journal: Index Futures, 356	
13-3c Hedging with Stock Index Futures, 356 13-3d Dynamic Asset Allocation with Stock Index Futures, 358 13-3e Arbitrage with Stock Index Futures, 358 13-3f Circuit Breakers on Stock Index Futures, 359	
13-4 Single Stock Futures, 359	
13-5 Risk of Trading Futures Contracts, 360	
13-5a Market Risk, 360 13-5b Basis Risk, 360 13-5c Liquidity Risk, 360 13-5d Credit Risk, 360 13-5e Prepayment Risk, 361 13-5f Operational Risk, 361	
13-5g Exposure of Futures Market to Systemic Risk, 361	
13-6 Globalization of Futures Markets, 362 13-6a Non-U.S. Participation in U.S. Futures Contracts, 362 13-6b Foreign Stock Index Futures, 362 13-6c Currency Futures Contracts, 363	
14: OPTION MARKETS	369
14-1 Background on Options, 369	
14-1a Comparison of Options and Futures, 370 14-1b Markets Used to Trade Options, 370 14-1c How Option Trades Are Executed, 371 14-1d Types of Orders, 371 14-1e Stock Option Quotations, 371	
14-1f Institutional Use of Options, 372	
14-2 Determinants of Stock Option Premiums, 372 14-2a Determinants of Call Option Premiums, 373 14-2b Determinants of Put Option Premiums, 374 14-2c How Option Pricing Can Be Used to Derive a Stock's Volatility, 375 14-2d Explaining Changes in Option Premiums, 376	

14-3 Speculating with Stock Options, 376 14-3a Speculating with Call Options, 377 14-3b Speculating with Put Options, 380 14-3c Excessive Risk from Speculation, 381 14-4 Hedging with Stock Options, 383 14-4a Hedging with Covered Call Options, 383 14-4b Hedging with Put Options, 383 14-5 Options on ETFs and Stock Indexes, 385 14-5a Hedging with Stock Index Options, 385 14-5b Using Index Options to Measure the Market's Risk, 387 14-6 Options on Futures Contracts, 388 14-6a Speculating with Options on Futures, 388 14-6b Hedging with Options on Interest Rate Futures, 390 14-6c Hedging with Options on Stock Index Futures, 391 14-7 Options as Executive Compensation, 392 14-7a Limitations of Option Compensation, 392 14-8 Globalization of Options Markets, 393 14-8a Currency Options Contracts, 393 Appendix 14: Option Valuation, 400 15: SWAP MARKETS 409 15-1 Background, 409 15-1a Use of Swaps for Hedging, 410 15-1b Use of Swaps for Speculating, 411 15-1c Participation by Financial Institutions, 411 15-2 Types of Interest Rate Swaps, 412 15-2a Plain Vanilla Swaps, 412 15-2b Forward Swaps, 414 15-2c Callable Swaps, 415 15-2d Putable Swaps, 415 15-2e Extendable Swaps, 416 15-2f Zero-Coupon-for-Floating Swaps, 417 15-2g Rate-Capped Swaps, 417 15-2h Other Types of Swaps, 418 15-3 Risks of Interest Rate Swaps, 420 15-3a Basis Risk, 420 15-3b Credit Risk, 420 15-3c Sovereign Risk, 421 15-4 Pricing Interest Rate Swaps, 421 15-4a Prevailing Market Interest Rates, 421 15-4b Availability of Counterparties, 421 15-4c Credit and Sovereign Risk, 422 15-5 Performance of Interest Rate Swaps, 422 15-6 Interest Rate Caps, Floors, and Collars, 423 15-6a Interest Rate Caps, 423 15-6b Interest Rate Floors, 424 15-6c Interest Rate Collars, 425 15-7 Credit Default Swaps, 426 15-7a Secondary Market for CDS Contracts, 427

15-7b Collateral on CDS Contracts, 427

15-7c Payments on a Credit Default Swap, 427	
15-7d How CDS Contracts Affect Debtor-Creditor Negotiations, 428	
15-7e Development of the CDS Market, 428	
15-7f Impact of the Credit Crisis on the CDS Market, 428	
15-7g Reform of CDS Contracts, 430	
15-8 Globalization of Swap Markets, 430	
15-8a Currency Swaps, 431	
16: FOREIGN EXCHANGE DERIVATIVE MARKETS	439
16-1 Foreign Exchange Markets, 439	737
16-1a Institutional Use of Foreign Exchange Markets, 439	
16-1b Exchange Rate Quotations, 440	
16-1c Types of Exchange Rate Systems, 441	
16-1d Eurozone Arrangement, 442	
16-1e Abandoning the Euro, 443	
16-2 Factors Affecting Exchange Rates, 443	
16-2a Differential Inflation Rates, 444	
16-2b Differential Interest Rates, 444	
16-2c Central Bank Intervention, 445	
16-3 Forecasting Exchange Rates, 446	
16-3a Technical Forecasting, 447	
16-3b Fundamental Forecasting, 447	
16-3c Market-Based Forecasting, 447	
16-3d Mixed Forecasting, 448	
16-4 Foreign Exchange Derivatives, 448	
16-4a Forward Contracts, 448	
16-4b Currency Futures Contracts, 449	
16-4c Currency Swaps, 450	
16-4d Currency Options Contracts, 450	
16-4e Use of Foreign Exchange Derivatives for Hedging, 450	
16-4f Use of Foreign Exchange Derivatives for Speculating, 451	
16-5 International Arbitrage, 453	
16-5a Locational Arbitrage, 453	
16-5b Triangular Arbitrage, 453	
16-5c Covered Interest Arbitrage, 454	
Appendix 16: Currency Option Pricing, 460	
Part 5 Integrative Problem: Choosing among Derivative Securities, 464	
Midterm Self-Exam, 466	
PART 6: Commercial Banking	473
FART 6. Commercial banking	4/3
17: COMMERCIAL BANK OPERATIONS	475
17-1 Background on Commercial Banks, 475	
17-1a Bank Market Structure, 475	
17-2 Bank Sources of Funds, 476	
17-2a Transaction Deposits, 477	
17-2b Savings Deposits, 477	
17-2c Time Deposits, 478	
17-2d Money Market Deposit Accounts, 478	

17-2e Federal Funds Purchased, 478	
17-2f Borrowing from the Federal Reserve Banks, 479	
17-2g Repurchase Agreements, 479	
17-2h Eurodollar Borrowings, 480	
17-2i Bonds Issued by the Bank, 480	
17-2j Bank Capital, 480	
17-2k Distribution of Bank Sources of Funds, 481	
17-2l Cash, 482	
17-2m Bank Loans, 482	
17-2n Investment in Securities, 486	
17-20 Federal Funds Sold, 487	
17-2p Repurchase Agreements, 487	
17-2q Eurodollar Loans, 487	
17-2r Fixed Assets, 487	
17-2s Proprietary Trading, 487	
17-2t Summary of Bank Uses of Funds, 488	
17-3 Off-Balance Sheet Activities, 490	
17-3a Loan Commitments, 490	
17-3b Standby Letters of Credit, 491	
17-3c Forward Contracts on Currencies, 491	
17-3d Interest Rate Swap Contracts, 491	
17-3e Credit Default Swap Contracts, 491	
17-4 International Banking, 492	
17-4a International Expansion, 492	
17-4b Impact of the Euro on Global Competition, 492	
17-4c International Exposure, 493	
18: BANK REGULATION	497
18-1 Background, 497	
18-2 Regulatory Structure, 497	
18-2a Regulators, 498	
18-2b Regulation of Bank Ownership, 498	
18-3 Regulation of Bank Operations, 498	
18-3a Regulation of Deposit Insurance, 498	
18-3b Regulation of Deposits, 500	
18-3c Regulation of Bank Loans, 500	
18-3d Regulation of Bank Investment in Securities, 501	
18-3e Regulation of Securities Services, 501	
18-3f Regulation of Insurance Services, 502	
18-3g Regulation of Off-Balance Sheet Transactions, 503	
18-3h Regulation of the Accounting Process, 503	
18-4 Regulation of Capital, 504	
18-4a How Banks Satisfy Regulatory Requirements, 504	
18-4b Basel I Accord, 505	
18-4c Basel II Framework, 505	
18-4d Basel III Framework, 506	
18-4e Use of the VaR Method to Determine Capital Levels, 506	
18-4f Stress Tests Imposed to Determine Capital Levels, 507	
18-40 Government Infusion of Capital during the Credit Crisis, 507	

18-5 How Regulators Monitor Banks, 508
18-5a CAMELS Ratings, 508
18-5b Corrective Action by Regulators, 511
18-5c Funding the Closure of Failing Banks, 511
18-6 Government Rescue of Failing Banks, 511
18-6a Argument for Government Rescue, 512
18-6b Argument against Government Rescue, 512
18-6c Government Rescue of Bear Stearns, 512
18-6d Failure of Lehman and Rescue of AIG, 513
18-6e Protests of Bank Bailouts, 513
18-7 Financial Reform Act of 2010, 514
18-7a Mortgage Origination, 514
18-7b Sales of Mortgage-Backed Securities, 514
18-7c Financial Stability Oversight Council, 514
18-7d Orderly Liquidation, 515
18-7e Consumer Financial Protection Bureau, 515
18-7f Limits on Bank Proprietary Trading, 515
18-7g Trading of Derivative Securities, 516
18-8 Global Bank Regulations, 516
19: BANK MANAGEMENT
19-1 Bank Goals, Strategy, and Governance, 521
19-1a Aligning Managerial Compensation with Bank Goals, 521
19-1b Bank Strategy, 522
19-1c Bank Governance by the Board of Directors, 522
19-1d Other Forms of Bank Governance, 523
19-2 Managing Liquidity, 523
19-2a Management of Liabilities, 523
19-2b Management of Money Market Securities, 524
19-2c Management of Loans, 524
19-2d Use of Securitization to Boost Liquidity, 524
19-3 Managing Interest Rate Risk, 525
19-3a Methods Used to Assess Interest Rate Risk, 525
19-3b Whether to Hedge Interest Rate Risk, 530
19-3c Methods Used to Reduce Interest Rate Risk, 532
19-3d International Interest Rate Risk, 535
19-4 Managing Credit Risk, 535
19-4a Measuring Credit Risk, 535
19-4b Trade-off between Credit Risk and Return, 536
19-4c Reducing Credit Risk, 537
19-5 Managing Market Risk, 538
19-5a Measuring Market Risk, 538
19-5b Methods Used to Reduce Market Risk, 539
19-6 Integrated Bank Management, 539
19-6a Application, 539
19-7 Managing Risk of International Operations, 543
19-7a Exchange Rate Risk, 543
19-7b Settlement Risk, 544

521

20: BANK PERFORMANCE	551
20-1 Valuation of a Commercial Bank, 551	
20-1a Factors That Affect Cash Flows, 551	
20-1b Factors That Affect the Required Rate of Return by Investors, 553	
20-1c Impact of the Credit Crisis on Bank Valuations, 554	
20-2 Assessing Bank Performance, 554	
20-2a Interest Income and Expenses, 555	
20-2b Noninterest Income and Expenses, 556	
20-3 Evaluation of a Bank's ROA, 557	
20-3a Reasons for a Low ROA, 558	
20-3b Converting ROA to ROE, 559	
20-3c Application, 560	
Part 6 Integrative Problem: Forecasting Bank Performance, 566	
PART 7: Nonbank Operations	571
21: THRIFT OPERATIONS	573
21-1 Background on Savings Institutions, 573	
21-1a Ownership of Savings Institutions, 573	
21-1b Regulation of Savings Institutions, 574	
21-2 Sources and Uses of Funds, 575	
21-2a Sources of Funds, 575	
21-2b Uses of Funds, 575	
21-2c Balance Sheet of Savings Institutions, 576	
21-2d Interaction with Other Financial Institutions, 577	
21-2e Participation in Financial Markets, 578	
21-3 Valuation of a Savings Institution, 578	
21-3a Factors That Affect Cash Flows, 579	
21-3b Factors That Affect the Required Rate of Return, 580	
21-4 Exposure to Risk, 580	
21-4a Liquidity Risk, 581	
21-4b Credit Risk, 581	
21-4c Interest Rate Risk, 582	
21-5 Management of Interest Rate Risk, 584	
21-5a Adjustable-Rate Mortgages, 584	
21-5b Interest Rate Futures Contracts, 584	
21-5c Interest Rate Swaps, 584	
21-5d Conclusions about Managing Interest Rate Risk, 585	
21-6 Exposure of Savings Institutions to Crises, 585	
21-6a Savings Institution Crisis in the Late 1980s, 585	
21-6b Credit Crisis of 2008–2009, 586	
21-6c Reform in Response to the Credit Crisis, 587	
21-7 Credit Unions, 588	
21-7a Ownership of Credit Unions, 588	
21-7b Advantages and Disadvantages of Credit Unions, 588	
21-7c Deposit Insurance for Credit Unions, 589	
21-7d Regulatory Assessment of Credit Unions, 589	
21-7a Regulatory Assessment of Creati Ontons, 505 21-7e Credit Union Sources of Funds, 590	
21-7f Credit Union Uses of Funds, 590	
21-7g Exposure of Credit Unions to Risk, 590	

22: FINANCE COMPANY OPERATIONS	597
22-1 Types of Finance Companies, 597	
22-1a Consumer Finance Companies, 597	
22-1b Business Finance Companies, 597	
22-1c Captive Finance Subsidiaries, 598	
22-2 Sources and Uses of Funds, 598	
22-2a Sources of Funds, 598	
22-2b Uses of Finance Company Funds, 599	
22-2c Interaction with Other Financial Institutions, 601	
22-3 Valuation of a Finance Company, 602	
22-3a Factors That Affect Cash Flows, 602	
22-3b Factors That Affect the Required Rate of Return, 603	
22-4 Exposure of Finance Companies to Risk, 604	
22-4a Liquidity Risk, 604	
22-4b Interest Rate Risk, 605	
22-4c Credit Risk, 605	
22-5 Multinational Finance Companies, 605	
23: MUTUAL FUND OPERATIONS	609
23-1 Background on Mutual Funds, 609	
23-1a Pricing Shares of the Mutual Fund, 610	
23-1b Mutual Fund Distributions to Shareholders, 611	
23-1c Regulation of Mutual Funds, 611	
Using the Wall Street Journal: Mutual Fund Quotations, 612	
23-1d Management of Mutual Funds, 613	
23-1e Expenses Incurred by Mutual Fund Shareholders, 614	
23-1f Governance of Mutual Funds, 616	
23-1g Mutual Fund Categories, 617	
23-1h Stock Mutual Fund Categories, 618	
23-1i Bond Mutual Fund Categories, 619	
23-1j Asset Allocation Funds, 620	
23-1k Growth and Size of Mutual Funds, 620	
23-2 Performance of Mutual Funds, 621	
23-2a Valuation of Stock Mutual Funds, 621	
23-2b Valuation of Bond Mutual Funds, 623	
Using the Wall Street Journal: Performance of Mutual Funds, 624	
23-2c Performance from Diversifying among Funds, 624	
23-2d Ratings on Mutual Funds, 624	
23-2e Research on Mutual Fund Performance, 625	
23-3 Money Market Funds, 625	
23-3a Asset Composition of Money Market Funds, 627	
23-3b Risk of Money Market Funds, 627	
23-3c Management of Money Market Funds, 627	
23-4 Other Types of Funds, 628	
23-4a Closed-End Funds, 628	
23-4b Exchange-Traded Funds, 629	
23-4c Venture Capital Funds, 630	

Using the Wall Street Journal: Exchange-Traded Funds, 631	
23-4d Private Equity Funds, 632	
23-4e Hedge Funds, 633	
23-4f Real Estate Investment Trusts, 636	
24: SECURITIES OPERATIONS	641
24-1 Functions of Securities Firms, 641	
24-1a Facilitating Stock Offerings, 641	
24-1b Facilitating Bond Offerings, 643	
24-1c Securitizing Mortgages, 645	
24-1d Advising Corporations, 645	
24-1e Financing for Corporations, 646	
24-1f Providing Brokerage Services, 646	
24-1g Operating Mutual Funds, 647	
24-1h Proprietary Trading, 648	
24-1i Summary of Services Provided, 648	
24-1j Interaction with Other Financial Institutions, 649	
24-1k Participation in Financial Markets, 650	
24-1l Conflicts of Interest from Participation, 650	
24-1m Expanding Functions Internationally, 651	
24-2 Regulation of Securities Firms, 652	
24-2a Stock Exchange Regulations, 652	
24-2b Regulatory Events That Affected Securities Firms, 653	
24-3 Valuation of a Securities Firm, 654	
24-3a Factors That Affect Cash Flows, 655	
24-3b Factors That Affect the Required Rate of Return, 655	
24-4 Exposure of Securities Firms to Risk, 656	
24-4a Market Risk, 656	
24-4b Interest Rate Risk, 657	
24-4c Credit Risk, 657	
24-4d Exchange Rate Risk, 657	
24-4e Impact of Financial Leverage on Exposure to Risk, 657	
24-5 Impact of the Credit Crisis on Securities Firms, 658	
24-5a Government Assistance to Bear Stearns, 658	
24-5b Failure of Lehman Brothers, 660	
24-5c Impact of the Crisis on Regulatory Reform, 661	
25: INSURANCE AND PENSION FUND OPERATIONS	667
25-1 Background, 667	
25-1a Determinants of Insurance Premiums, 667	
25-1b Investments by Insurance Companies, 669	
25-1c Regulation of Insurance Companies, 669	
25-2 Life Insurance Operations, 671	
25-2a Ownership, 671	
25-2b Types of Life Insurance, 671	
25-2c Sources of Funds, 672	
25-2d Capital, 673	
25-2e Uses of Funds, 673	
25-26 Oscs of Funds, 075 25-2f Asset Management of Life Insurance Companies, 675	
25-2g Interaction with Other Financial Institutions, 676	
== = ₀ =	

25-3 Other Types of Insurance Operations, 677

- 25-3a Property and Casualty Insurance, 677
- 25-3b Health Care Insurance, 679
- 25-3c Business Insurance, 680
- 25-3d Bond Insurance, 680
- 25-3e Mortgage Insurance, 681

25-4 Exposure of Insurance Companies to Risk, 681

- 25-4a Interest Rate Risk, 682
- 25-4b Credit Risk, 682
- 25-4c Market Risk, 682
- 25-4d Liquidity Risk, 682
- 25-4e Exposure to Risk during the Credit Crisis, 682
- 25-4f Government Rescue of AIG, 683

25-5 Valuation of an Insurance Company, 683

- 25-5a Factors That Affect Cash Flows, 683
- 25-5b Factors That Affect the Required Rate of Return by Investors, 684
- 25-5c Indicators of Value and Performance, 684

25-6 Background on Pension Funds, 686

- 25-6a Public versus Private Pension Funds, 686
- 25-6b Defined-Benefit versus Defined-Contribution Plans, 686
- 25-6c Pension Fund Participation in Financial Markets, 688
- 25-6d Pension Regulations, 689

25-7 Pension Fund Management, 691

- 25-7a Management of Insured versus Trust Portfolios, 691
- 25-7b Management of Portfolio Risk, 692
- 25-7c Corporate Control by Pension Funds, 693

25-8 Performance of Pension Funds, 693

- 25-8a Pension Fund's Stock Portfolio Performance, 693
- 25-8b Pension Fund's Bond Portfolio Performance, 693
- 25-8c Performance Evaluation, 694
- 25-8d Performance of Pension Portfolio Managers, 695

Part 7 Integrative Problem: Assessing the Influence of Economic Conditions across a Financial Conglomerate's Units, 699

Final Self-Exam, 700

Appendix A: Comprehensive Project, 705

Appendix B: Using Excel to Conduct Analyses, 715

Glossary, 719

Index, 730

Preface

Financial markets finance much of the expenditures by corporations, governments, and individuals. Financial institutions are the key intermediaries in financial markets because they transfer funds from savers to the individuals, firms, or government agencies that need funds. *Financial Markets and Institutions*, 11th Edition, describes financial markets and the financial institutions that serve those markets. It provides a conceptual framework that can be used to understand why markets exist. Each type of financial market is described with a focus on the securities that are traded and the participation by financial institutions.

Today, many financial institutions offer all types of financial services, such as banking, securities services, mutual fund services, and insurance services. Each type of financial service is unique, however. Therefore, the discussion of financial services in this book is organized by type of financial service that can be offered by financial institutions.

Since the credit crisis, regulatory actions have been taken to prevent another crisis in the future. Accordingly, this text gives special attention to the impact of financial reform on each type of financial market and financial institution.

INTENDED MARKET

This text is suitable for undergraduate and master's level courses in financial markets, or financial institutions. To maximize students' comprehension, some of the more difficult questions and problems should be assigned in addition to the special applications at the end of each chapter and the Comprehensive Project. A term paper on the credit crisis may also be a valuable exercise, and several possible topics for this paper are provided at the end of the first chapter.

Organization of the Text

Part 1 (Chapters 1 through 3) introduces the key financial markets and financial institutions, explains why interest rates change over time, and explains why yields vary among securities. Part 2 (Chapters 4 and 5) describes the functions of the Federal Reserve System (the Fed) and explains how its monetary policy influences interest rates and other economic conditions. Part 3 (Chapters 6 through 9) covers the major debt security markets, Part 4 (Chapters 10 through 12) describes equity securities markets, and Part 5 (Chapters 13 through 16) covers the derivative security markets. Each chapter in Parts 3 through 5 focuses on a particular market. The integration of each market with other markets is stressed throughout these chapters. Part 6 (Chapters 17 through 20) concentrates on commercial banking, and Part 7 (Chapters 21 through 25) covers all other types of financial services provided by financial institutions.

Courses that emphasize financial markets should focus on the first five parts (Chapters 1 through 16); however, some chapters in the section on commercial banking are also relevant. Courses that emphasize financial institutions and financial services should focus on Parts 1, 2, 6, and 7, although some background on securities markets (Parts 3, 4, and 5) may be helpful.

Professors may wish to focus on certain chapters of this book, and skip others, depending on the other courses available to their students. For example, if a course on derivative securities is commonly offered, Part 5 of this text may be ignored. Alternatively, if an investments course provides a thorough background on types of securities, Parts 3 and 4 can be given less attention.

Chapters can be rearranged without a loss in continuity. Regardless of the order in which chapters are studied, it is highly recommended that some questions and exercises from each chapter be assigned. These exercises may serve as a focal point for class discussion.

The credit crisis receives considerable emphasis in the mortgage markets chapter (Chapter 9) because it was primarily caused by activities in the mortgage market. The crisis has had an impact on every type of financial market and institution, however, so it is covered in each chapter as it applies to the contents of that chapter.

COVERAGE OF MAJOR CONCEPTS AND EVENTS

Numerous concepts relating to recent events and current trends in financial markets are discussed throughout the chapters. These include the following:

- New laws applied to bond rating agencies
- Increased exposure of municipal bonds to default
- Facebook's IPO
- Performance of venture capital and private equity funding
- Government rescues of financial institutions during the credit crisis
- Credit default swaps
- Behavioral finance
- Emergence of private stock exchanges, such as SecondMarket and SharesPost
- Dark pools used to trade stocks
- Recent developments in insider trading
- New restrictions on proprietary trading by banks
- Occupy Wall Street protests
- Backdating of options
- Governance in financial markets
- The Fed's increasing role in financial markets
- Role of analysts
- Value-at-risk applications
- Asymmetric information
- Valuation of financial institutions
- Regulatory reform in financial services

Each chapter is self-contained, so professors can use classroom time to focus on the more complex concepts and rely on the text to cover the other concepts.

FEATURES OF THE TEXT

The features of the text are as follows:

- **Part-Opening Diagram.** A diagram is provided at the beginning of each part to illustrate generally how the key concepts in that part are related.
- **Objectives.** A bulleted list at the beginning of each chapter identifies the key concepts in that chapter.





- **Examples.** Examples are provided to reinforce key concepts.
- **Financial Reform.** A Financial Reform icon in the margin indicates a discussion of financial reform as it applies to the topics covered in the chapter.
- Global Aspects. A Global Aspects icon in the margin indicates international coverage of the topic being discussed.
- **Summary.** A bulleted list at the end of each chapter summarizes the key concepts. This list corresponds to the list of objectives at the beginning of the chapter.
- **Point Counter-Point.** A controversial issue is introduced along with opposing arguments, and students are asked to determine which argument is correct and to explain why.
- **Questions and Applications.** The Questions and Applications section at the end of each chapter tests students' understanding of the key concepts and may serve as homework assignments or study aids in preparation for exams.
- Interpreting Financial News. At the end of each chapter, students are challenged to interpret comments made in the media about the chapter's key concepts. This gives students practice in interpreting announcements by the financial media.
- *Managing in Financial Markets.* At the end of each chapter, students are placed in the position of financial managers and must make decisions about specific situations related to the key concepts in that chapter.
- Flow of Funds Exercise. A running exercise is provided at the end of each chapter to illustrate how a manufacturing company relies on all types of financial markets and financial services provided by financial institutions.
- Internet/Excel Exercises. At the end of each chapter, there are exercises that introduce students to applicable information available on various websites, enable the application of Excel to related topics, or a combination of these. For example, the exercises allow students to assess yield curves, risk premiums, and stock volatility.
- **Problems.** Selected chapters include problems to test students' computational skills.
- WSJ Exercise. This exercise appears at the end of selected chapters and gives students an opportunity to apply information provided in the Wall Street Journal to specific concepts explained in that chapter.
- **Integrative Problems.** An integrative problem at the end of each part integrates the key concepts of chapters within that part.
- **Term Paper on the Credit Crisis.** Several topics for term papers on the credit crisis are suggested at the end of Chapter 1.
- **Comprehensive Project.** This project, found in Appendix A, requires students to apply real data to several key concepts described throughout the book.
- Midterm and Final Self-Examinations. At the end of Chapter 16, a midterm self-exam is offered to test students' knowledge of financial markets. At the end of Chapter 25, a final self-exam is offered to test students' knowledge of financial institutions. An answer key is provided so that students can evaluate their answers after they take the exam.

The concepts in each chapter can be reinforced by using one or more of the features just listed. Professors' use of the features will vary depending on the level of their students and the course focus. A course that focuses mostly on financial markets may emphasize tools such as the WSJ Exercises and Part 1 of the Comprehensive Project (on taking positions in securities and derivative instruments). In contrast, a course that focuses on financial institutions may assign an exercise in which students must review recent annual

reports (see Part 2 of the Comprehensive Project) to determine how a particular financial institution's performance is affected by its policies, industry regulations, and economic conditions. In addition, the Internet/Excel Exercises on financial institutions give students practice in assessing the operations and performance of financial institutions.

SUPPLEMENTS TO THE TEXT

To access the instructor resources, go to www.cengage.com/login, log in with your faculty account username and password, and use ISBN 9781133947875 to search for and add instructor resources to your account Bookshelf.

- *Instructor's Manual.* Revised by the author, the instructor's manual contains the chapter outline for each chapter and a summary of key concepts for discussion as well as answers to the end-of-chapter Questions and Problems.
- *Test Bank*. The expanded test bank, which has also been revised by the author, contains a large set of questions in multiple choice or true/false format, including content questions as well as problems.
- Cognero[™] Test Bank. Cengage Learning Testing Powered by Cognero[™] is a flexible, online system that allows you to author, edit, and manage test bank content from multiple Cengage Learning solutions; create multiple test versions in an instant; and deliver tests from your LMS, your classroom, or wherever you want. The Cognero[™] Test Bank contains the same questions that are in the Microsoft[®] Word Test Bank. All question content is now tagged according to Tier I (Business Program Interdisciplinary Learning Outcomes) and Tier II (Finance-specific) standards topic, Bloom's Taxonomy, and difficulty level.
- **PowerPoint Slides.** The PowerPoint slides clarify content and provide a solid guide for student note-taking. In addition to the regular notes slides, a separate set of exhibit-only PPTs are also available.

Additional Course Tools

Cengage Learning Custom Solutions

Whether you need print, digital, or hybrid course materials, Cengage Learning Custom Solutions can help you create your perfect learning solution. Draw from Cengage Learning's extensive library of texts and collections, add or create your own original work, and create customized media and technology to match your learning and course objectives. Our editorial team will work with you through each step, allowing you to concentrate on the most important thing—your students. Learn more about all our services at www.cengage.com/custom.

Cengage Learning's Global Economic Watch

This online portal houses the most current and up-to-date content concerning the economic crisis and is your source for turning today's challenges into tomorrow's solutions. Organized by discipline, the GEW Resource Center offers the solutions instructors and students need in an easy-to-use format. Included are an overview and timeline of the historical events leading up to the crisis, links to the latest news and resources, discussion and testing content, an instructor feedback forum, and a Global Issues Database. Visit www.cengage.com/thewatch for more information.

ACKNOWLEDGMENTS

The motivation to write this textbook came primarily from the encouragement of E. Joe Nosari (Florida State University). Several professors helped develop the text outline and offered suggestions on which of the concepts from earlier editions of this book should be covered in this edition. They are acknowledged in alphabetical order:

Ibrihim Affaneh, Indiana University of Pennsylvania

Michael H. Anderson, University of Massachusetts – Dartmouth

Henry C. F. Arnold, Seton Hall University

James C. Baker, Kent State University Gerald Bierwag, Florida International University

Carol Billingham, Central Michigan University

Randy Billingsley, Virginia Tech University Rita M. Biswas, SUNY – Albany

Howard W. Bohnen, St. Cloud State University

Paul J. Bolster, Northeastern University

M. E. Bond, University of Memphis Carol Marie Boyer, Long Island

University – C.W. Post Campus

Alka Bramhandkar, Ithaca College Emile J. Brinkman, University of

Houston - University Park

Christopher L. Brown, Western Kentucky University

Bill Brunsen, Eastern New Mexico University

Sarah Bryant, George Washington University

James B. Burnham, Duquesne University Paul Bursik, St. Norbert College

Deanne Butchey, Florida International University

William Carner, University of Missouri – Columbia

Joseph Cheng, Ithaca College

William T. Chittenden, Northern Illinois University

C. Steven Cole, University of North Texas

M. Cary Collins, University of Tennessee Mark Correll, University of Colorado Wayne C. Curtis, Troy State University Julie Dahlquist, University of Texas – San Antonio Steven Dobson, California Polytechnic State University

Robert M. Donchez, University of Colorado – Boulder

Lynne Pierson Doti, Chapman University

Richard J. Dowen, Northern Illinois University

Imad Elhaj, University of Louisville James Felton, Central Michigan University

Donald Flagg, University of Tampa Stuart Fletcher, Appalachian State University

George C. Fowler, York County Community College

Norman Frost, Loyola University of Maryland

Clifford L. Fry, University of Houston Ramesh Garg, Eastern Michigan University

Edward K. Gill, California State University – Chico

Claire G. Gilmore, St. Joseph's University

Owen Gregory, University of Illinois – Chicago

Paul Grier, SUNY – Binghamton Ann Hackert, Idaho State University John Halloran, University of Notre Dame

Gerald A. Hanweck, George Mason University

Rodney Hardcastle, Pacific Union College Wei He, Mississippi State University Hildegard R. Hendrickson, Seattle University

Bradley K. Hobbs, Ph.D., Florida Gulf Coast University

Jerry M. Hood, Loyola University – New Orleans

Ronald M. Horowitz, Oakland University Paul Hsueh, University of Central Florida Carl D. Hudson, Auburn University John S. Jahera, Jr., Auburn University Rob James, Boston University

Mel Jameson, University of Nevada Hossein Noorain, Boston University & Shane Johnson, Louisiana State Wentworth Institute of Technology University Dale Osborne, University of Texas -Jody Jones, Oklahoma Christian University Coleen Pantalone, Northeastern Jan Jusko, College of Staten Island University Richard H. Keehn, University of Thomas H. Payne, University of Wisconsin - Parkside Tennessee - Chattanooga James B. Kehr, Miami University of Ohio Sarah Peck, University of Iowa Chien-Chih Peng, Morehead State David F. Kern, Arkansas State University Elinda F. Kiss, University of Maryland University Robert H. Smith School of Business Micki Pitcher, Olivet College James W. Kolari, Texas A&M D. Anthony Plath, University of North Carolina - Charlotte University Vladimir Kotomin, University of Barbara Poole, Roger Williams Wisconsin - Eau Claire University Rose Prasad, Central Michigan Robert A. Kunkel, University of Wisconsin – Oshkosh University George Kutner, Marquette University Xiaoling Pu, Kent State University Robert Lamy, Wake Forest University Mitchell Ratner, Rider University David J. Leahigh, King's College David Rayome, Northern Michigan David N. Leggett, Bentley College University Alan Reichert, Cleveland State University William Lepley, University of Wisconsin - Green Bay Kenneth L. Rhoda, LaSalle University Andrew Light, Liberty University Nivine Richie, University of North Morgan Lynge, Jr., University of Illinois Carolina – Wilmington Pawan Madhogarhia, Pennsylvania State Antonio J. Rodriguez, Texas A&M University International University Judy E. Maese, New Mexico State Lawrence C. Rose, Massey University University Jack Rubens, Bryant College Timothy A. Manuel, University of Atul K. Saxena, Georgia Gwinnett Montana College Jeff Schultz, Christian Brothers L. R. Martindale, Texas A&M University Joseph S. Mascia, Adelphi University University Robert W. McLeod, University of Alabama Robert Schweitzer, University of Kathleen S. McNichol, LaSalle University Delaware James McNulty, Florida Atlantic Mehmet Sencicek, University of New University Charles Meiburg, University of Virginia Kilman Shin, Ferris State University Jose Mercado-Mendez, Central Missouri Ahmad Sorhabian, California State State University Polytechnic University - Pomona Edward Miseta, Penn State - Erie Andrew Spieler, Hofstra University Clay M. Moffett, University of North K. P. Sridharan, Delta State University Carolina – Wilmington S. R. Stansell, East Carolina University Kenneth Moran, Harding University Richard W. Stolz, University of South J. K. Mullen, Clarkson University Carolina Upstate Neil Murphy, Virginia Commonwealth Richard S. Swasey, Northeastern University University Srinivas Nippani, Texas A&M University – John Thornton, Kent State University

Olaf J. Thorp, Babson College

Commerce

James D. Tripp, University of Tennessee –MartinK. C. Tseng, California State University –

Fresno

Harry J. Turtle, University of Manitoba

Emre Unlu, University of Nebraska Cevdet Uruk, University of Memphis Geraldo M. Vasconcellos, Lehigh University

John Walker, Kutztown University Michael C. Walker, University of Cincinnati Charles Walwyn, SUNY – Maritime
Fang Wang, West Virginia University
Bruce Watson, Wellesley College
Jennifer Westbrook, University of
Alabama – Huntsville
David A. Whidbee, Washington State
University
Alex H. Wilson, University of Arizona
Colin Young, Bentley College
Stephen Zera, California State
University – San Marcos
Mei "Miranda" Zhang, Mercer
University

Many of my friends and colleagues offered useful suggestions for this edition, including Kevin Brady (Florida Atlantic University), Kien Cao (Foreign Trade University), Inga Chira (Oregon State University), Jeff Coy (University of Central Florida), Sean Davis (University of North Florida), Ken Johnson (Florida International University), Marek Marciniak (West Chester University), Thanh Ngo (University of Texas – Pan American), Arjan Premti (Florida Atlantic University), Nivine Richie (University of North Carolina – Wilmington), Garrett Smith (Florida Atlantic University), and Nik Volkov (Florida Atlantic University).

I appreciate the help and support from the people at Cengage Learning, including Clara Goosman (Product Manager), Mike Reynolds (Executive Product Manager), Heather Mooney (Marketing Manager), Kendra Brown (Content Developer), Adele Scholtz (Senior Product Assistant), and Chris Walz (Marketing Coordinator). Special thanks are due to Scott Dillon and Tamborah Moore (Senior Content Project Managers) and Nancy Ahr (Copyeditor) for their efforts to ensure a quality final product.

Jeff Madura Florida Atlantic University

About the Author

Dr. Jeff Madura is presently the SunTrust Bank Professor of Finance at Florida Atlantic University. He has written several successful finance texts, including *International Financial Management*. His research on financial markets and institutions has been published in numerous journals, including *Journal of Financial and Quantitative Analysis; Journal of Banking and Finance; Journal of Money, Credit and Banking; Financial Management; Journal of Financial Research; Journal of Financial Services Research; and Financial Review.* Dr. Madura has received multiple awards for excellence in teaching and research, and he has served as a consultant for international banks, securities firms, and other multinational corporations. He earned his B.S. and M.A. from Northern Illinois University and his D.B.A. from Florida State University. Dr. Madura has served as a director for the Southern Finance Association and Eastern Finance Association, and he is also former president of the Southern Finance Association.