

Detailed Table of Contents

Part I Financial Markets and Financial Instruments		1		
1	Raising Capital: The Process and the Players	3		
1.1	Financing the Firm	4		
	Decisions Facing the Firm	5		
	Who has the Biggest Capital Markets?	7		
1.2	Public and Private Sources of Capital	8		
1.3	The Environment for Raising Capital	9		
	The Legal Environment	10		
	The Financial System: Bank- and Market-Based Countries	11		
	Ownership Structure	12		
	Investment Banking	13		
	The Underwriting Process	15		
	The Underwriting Agreement	17		
	Classifying Offerings	17		
	The Costs of Debt and Equity Issues	17		
	Types of Underwriting Arrangement	18		
1.4	Raising Capital in International Markets	19		
	Euromarkets	19		
	Direct Issuance	19		
1.5	Islamic Financing	19		
1.6	Trends in Raising Capital	20		
	The New Economic Reality	20		
1.7	Summary and Conclusions	24		
	References and Additional Readings	26		
2	Debt Financing	28		
2.1	Bank Loans	29		
	Types of Bank Loan	29		
	Floating Rates	29		
	Loan Covenants	31		
2.2	Leases	32		
2.3	Commercial Paper	33		
	Who Sells Commercial Paper?	33		
	Buyback Provisions	33		
2.4	Supplier Credit	33		
	An Example of Supplier Credit	34		
2.5	Corporate Bonds	34		
	Bond Covenants	35		
	Bond Options	37		
	Cash Flow Pattern	38		
	Bond Prices: Par, Discount and Premium Bonds	39		
	Maturity	40		
	Bond Ratings	40		
	The High-Yield Debt Market	42		
2.6	Asset-Backed Securities	44		
	Definitions	45		
	Trading Asset-Backed Securities	45		
2.7	More Exotic Securities	46		
	Tax and Regulatory Frictions as Motivators for Innovation	46		
	Macroeconomic Conditions and Financial Innovation	46		
	Financial Innovation in Emerging Capital Markets	46		
	The Junk Bond Market and Financial Innovation	46		
	A Perspective on the Pace of Financial Innovation	46		
2.8	Raising Debt Capital in the Euromarkets	47		
	Features of Eurobonds	47		
	Size and Growth of the Eurobond Market, and the Forces behind the Growth	47		
	Eurocurrency Loans	48		
2.9	Primary and Secondary Markets for Debt	49		
	The Primary and Secondary Market for Treasury Securities	49		
	The Primary and Secondary Market for Corporate Bonds	49		
2.10	Bond Prices, Yields to Maturity and Bond Market Conventions	50		
	Settlement Dates	51		
	Accrued Interest	51		
2.11	Recent Research in Debt Financing	53		
2.12	Summary and Conclusions	54		
	References and Additional Readings	57		
3	Equity Financing	58		
3.1	Types of Equity Security	59		
	Ordinary Shares	59		
	Preference Shares	60		
	Warrants	61		
	Volume of Global Equity Financing	62		
3.2	The Globalization of Equity Markets	62		
3.3	Secondary Markets for Equity	63		
	Types of Secondary Market for Equity Exchanges	63		

	Electronic Communication Networks (ECNs)	64		Combining a Risk-Free Asset with a Risky Asset in the Mean-Standard Deviation Diagram	105
3.4	Equity Market Informational Efficiency and Capital Allocation	64		Portfolios of Two Perfectly Positively Correlated or Perfectly Negatively Correlated Assets	107
3.5	Private Equity	65		The Feasible Means and Standard Deviations from Portfolios of Other Pairs of Assets	108
3.6	The Decision to Issue Shares Publicly	66		4.8 Interpreting the Covariance as a Marginal Variance	109
	Demand- and Supply-Side Explanations for IPO Cycles	66		A Proof Using Derivatives from Calculus	109
	The Benefits of Going Public	67		Numerical Interpretations of the Marginal Variance Result	110
	The Costs of Going Public	68	4.9	Finding the Minimum Variance Portfolio	112
	The Process of Going Public	69		Properties of a Minimum Variance Portfolio	112
3.7	Equity Returns Associated with IPOs of Ordinary Equity	70		Identifying the Minimum Variance Portfolio of Two Assets	112
	The Underpricing of IPOs	70		Identifying the Minimum Variance Portfolio of Many Assets	113
	What Are the Long-term Returns of IPOs?	71	4.9	Summary and Conclusions	115
3.8	What Explains Underpricing?	71		References and Additional Readings	120
	How Do I Get These Underpriced Shares?	71		5 Mean-Variance Analysis and the Capital Asset Pricing Model	121
	The Incentives of Underwriters	71		5.1 Applications of Mean-Variance Analysis and the CAPM in Use Today	123
	The Case Where the Managers of the Issuing Firm Have Better Information than Investors	72		Investment Applications of Mean-Variance Analysis and the CAPM	123
	The Case Where Some Investors Have Better Information than Other Investors	72		Corporate Applications of Mean-Variance Analysis and the CAPM	123
	The Case Where Investors Have Information that the Underwriter Does Not	73	5.2	The Essentials of Mean-Variance Analysis	123
3.9	The Going-Private Decision	74		The Feasible Set	123
3.10	Summary and Conclusions	74		The Assumptions of Mean-Variance Analysis	124
	References and Additional Readings	76		5.3 The Efficient Frontier and Two-Fund Separation	125
				The Quest for the Holy Grail: Optimal Portfolios	125
				Two-Fund Separation	126
			5.4	The Tangency Portfolio and Optimal Investment	128
				Optimal Investment When a Risk-Free Asset Exists	128
				Identification of the Tangency Portfolio	130
			5.5	Finding the Efficient Frontier of Risky Assets	133
				5.6 How Useful is Mean-Variance Analysis for Finding Efficient Portfolios?	134
			5.7	The Relation between Risk and Expected Return	135
				Relevant Risk and the Tangency Portfolio	135
				Betas	136
Part II Valuing Financial Assets		83			
4	Portfolio Tools	87			
4.1	Portfolio Weights	89			
	The Two-Stock Portfolio	89			
	The Many-Security Portfolio	90			
4.2	Portfolio Returns	91			
4.3	Expected Portfolio Returns	92			
	Portfolios of Two Securities	92			
	Portfolios of Many Securities	93			
4.4	Variances and Standard Deviations	94			
	Return Variances	94			
	Estimating Variances: Statistical Issues	94			
	Standard Deviation	96			
4.5	Covariances and Correlations	96			
	Covariance	96			
4.6	Variances of Portfolios and Covariances between Portfolios	99			
	Correlations, Diversification and Portfolio Variances	101			
	Portfolios of Many Assets	103			
	Covariances between Portfolio Returns and Asset Returns	104			
4.7	The Mean-Standard Deviation Diagram	105			

	Marginal Variance versus Total Variance	138	6.4	Interpreting Common Factors	172
	Tracking Portfolios in Portfolio Management and as a Theme for Valuation	138		Estimating the Factors	172
5.8	The Capital Asset Pricing Model	139		Using Factor Analysis to Generate Factor Portfolios	172
	Assumptions of the CAPM	140		Using Macroeconomic Variables to Generate Factors	173
	The Conclusion of the CAPM	140		Using Characteristic-Sorted Portfolios to Estimate the Factors	174
	The Market Portfolio	140	6.5	Factor Betas	174
	Why the Market Portfolio is the Tangency Portfolio	141		What Determines Factor Betas?	174
	Implications for Optimal Investment	142	6.6	Factor Models for Portfolios	175
5.9	Estimating Betas, Risk-Free Returns, Risk Premiums and the Market Portfolio	143		Using Factor Models to Compute Covariances and Variances	176
	Risk-Free or Zero-Beta Returns	143		Computing Covariances in a One-Factor Model	176
	Beta Estimation and Beta Shrinkage	143		Computing Covariances from Factor Betas in a Multifactor Model	177
	Improving the Beta Estimated from Regression	143		Factor Models and Correlations between Security Returns	178
	Estimating the Market Risk Premium	146		Applications of Factor Models to Mean-Variance Analysis	179
5.10	Identifying the Market Portfolio	147		Using Factor Models to Compute Variances	179
	Empirical Tests of the Capital Asset Pricing Model	147	6.7	Factor Models and Tracking Portfolios	180
	Can the CAPM Really Be Tested?	147		Tracking Portfolios and Corporate Hedging	180
	Is the Value-Weighted Market Index Mean-Variance Efficient?	148		Capital Allocation Decisions of Corporations and Tracking Portfolios	181
	Cross-Sectional Tests of the CAPM	149		Designing Tracking Portfolios	181
	Time-Series Tests of the CAPM	151	6.8	Pure Factor Portfolios	183
	Results of Cross-Sectional and Time-Series Tests	151		Constructing Pure Factor Portfolios from More Primitive Securities	183
	International Evidence	154		The Risk Premiums of Pure Factor Portfolios	183
	Interpreting the CAPM's Empirical Shortcomings	155	6.9	Tracking and Arbitrage	185
	Are These CAPM Anomalies Disappearing?	156		Using Pure Factor Portfolios to Track the Returns of a Security	186
	Empirical Issues	157		The Expected Return of the Tracking Portfolio	186
5.11	Summary and Conclusions	157		Decomposing Pure Factor Portfolios into Weights on More Primitive Securities	187
	References and Additional Readings	163		No Arbitrage and Pricing: The Arbitrage Pricing Theory	187
6	Factor Models and the Arbitrage Pricing Theory	165		The Assumptions of the Arbitrage Pricing Theory	187
6.1	The Market Model: The First Factor Model	167	6.10	Arbitrage Pricing Theory with No Firm-Specific Risk	188
	The Market Model Regression	167		Graphing the APT Risk-Return Equation	189
	The Market Model Variance Decomposition	167		Verifying the Existence of Arbitrage	189
	Diversifiable Risk and Fallacious CAPM Intuition	169		The Risk-Expected Return Relation for Securities with Firm-Specific Risk	192
	Residual Correlation and Factor Models	169	6.11	Estimating Factor Risk Premiums and Factor Betas	193
6.2	The Principle of Diversification	170		Empirical Tests of the Arbitrage Pricing Theory	193
	Insurance Analogies to Factor Risk and Firm-Specific Risk	170	6.12		
	Quantifying the Diversification of Firm-Specific Risk	170			
6.3	Multifactor Models	171			
	The Multifactor Model Equation	172			

	Empirical Implications of the APT	194		Put–Call Parity and a Minimum	
	Evidence from Factor Analysis Studies	194		Value for a Call	243
	Evidence from Studies with			Put–Call Parity and the Pricing and	
	Macroeconomic Factors	194		Premature Exercise of American Calls	244
	Evidence from Studies that Use			Put–Call Parity and Corporate	
	Firm Characteristics	195		Securities as Options	247
6.13	Summary and Conclusions	196	8.4	Put–Call Parity and Portfolio Insurance	249
	References and Additional Readings	199		Binomial Valuation of European	
				Options	250
7	Pricing Derivatives	201	8.5	Binomial Valuation of American Options	253
7.1	Examples of Derivatives	202		American Puts	253
	Forwards and Futures	203		Valuing American Options on	
	Swaps	206		Dividend-Paying Equities	255
	Options	207	8.6	Black–Scholes Valuation	257
	Real Assets	212		Black–Scholes Formula	257
	Structured Notes	212		Dividends and the Black–Scholes	
7.2	The Basics of Derivatives Pricing	212		Model	258
	Perfect Tracking Portfolios	212	8.7	Estimating Volatility	259
	No Arbitrage and Valuation	212		Using Historical Data	260
	Applying the Basic Principles of			The Implied Volatility Approach	260
	Derivatives Valuation to Value		8.8	Black–Scholes Price Sensitivity to	
	Forwards	213		Share Price, Volatility, Interest Rates	
7.3	Binomial Pricing Models	216		and Expiration Time	261
	Tracking and Valuation: Static			Delta: The Sensitivity to Share Price	
	versus Dynamic Strategies	216		Changes	261
	Binomial Model Tracking of a			Delta as the Number of Shares of Equity	
	Structured Bond	217		in a Tracking Portfolio	261
	Using Tracking Portfolios to Value			Black–Scholes Option Values and	
	Derivatives	218		Equity Volatility	262
	Risk-Neutral Valuation of Derivatives:			Option Values and Time to Option	
	The Industry Approach	221		Expiration	263
7.4	Multi-Period Binomial Valuation	226		Option Values and the Risk-Free	
	How Restrictive Is the Binomial			Interest Rate	263
	Process in a Multi-Period Setting?	226		A Summary of the Effects of the	
	Numerical Example of Multi-Period			Parameter Changes	263
	Binomial Valuation	227	8.9	Valuing Options on More Complex	
	Algebraic Representation of Two-Period			Assets	264
	Binomial Valuation	228		The Forward Price Version of the	
7.5	Valuation Techniques in the Financial			Black–Scholes Model	264
	Services Industry	229		Computing Forward Prices from	
	Numerical Methods	229		Spot Prices	265
	The Risk-Free Rate Used by Industry			Applications of the Forward Price	
	Practitioners	230		Version of the Black–Scholes Formula	265
7.6	Market Frictions and Lessons from			American Options	265
	the Fate of Amaranth Advisors	231		American Call and Put Currency	
7.7	Summary and Conclusions	231		Options	267
	References and Additional Readings	237	8.10	Empirical Biases in the	
				Black–Scholes Formula	268
8	Options	238	8.11	Summary and Conclusions	269
8.1	A Description of Options and			References and Additional Readings	273
	Options Markets	239			
	European and American Options	239			
	The Four Features of Options	239			
8.2	Option Expiration	240			
8.3	Put–Call Parity	241			
	Put–Call Parity and Forward Contracts:				
	Deriving the Formula	241			
Part III Valuing Real Assets					
			9	Discounting and Valuation	281
			9.1	Cash Flows of Real Assets	282
				Unlevered Cash Flows	283

	Creating Pro-Forma Forecasts of Financial Statements	287		Asset Pricing Models and the Tracking Portfolio Approach	351
9.2	Using Discount Rates to Obtain Present Values	292		Implementing the Tracking Portfolio Approach	352
	Single-Period Returns and Their Interpretation	292		Linking Financial Asset Tracking to Real Asset Valuation with the SML	353
	Rates of Return in a Multi-Period Setting	293	11.2	The Risk-Adjusted Discount Rate Method	354
	Value Additivity and Present Values of Cash Flow Streams	295		Defining and Implementing the Risk-Adjusted Discount Rate Method with Given Betas	354
	Inflation	295		The Tracking Portfolio Method is Implicit in the Risk-Adjusted Discount Rate Method	355
	Annuities and Perpetuities	296		The Effect of Leverage on Comparisons	356
	Simple Interest	302		The Balance Sheet for an All-Equity-Financed Firm	356
	Time Horizons and Compounding Frequencies	302		The Balance Sheet for a Firm Partially Financed with Debt	356
9.3	Summary and Conclusions	304	11.3	The Right-Hand Side of the Balance Sheet as a Portfolio	356
	References and Additional Readings	309		Distinguishing Risk-Free Debt from Default-Free Debt	357
10	Investing in Risk-Free Projects	310		Graphs and Numerical Illustrations of the Effect of Debt on Risk	358
10.1	Cash Flows	311		Implementing the Risk-Adjusted Discount Rate Formula with Comparison Firms	360
10.2	Net Present Value	312		The CAPM, the Comparison Method and Adjusting for Leverage	360
	Discounted Cash Flow and Net Present Value	312		Obtaining a Cost of Capital from the Arbitrage Pricing Theory	361
	Project Evaluation with the Net Present Value Rule	313		Costs of Capital Computed with Alternatives to CAPM and APT: Dividend Discount Models	363
	Present Values and Net Present Values Have the Value Additivity Property	316	11.4	What if No Pure Comparison Firm Exists?	365
	Using NPV with Capital Constraints	318		Pitfalls in Using the Comparison Method	365
	Using NPV to Evaluate Projects That Can Be Repeated Over Time	319		Project Betas are Not the Same as Firm Betas	366
10.3	Economic Value Added (EVA)	320		Growth Opportunities are Usually the Source of High Betas	367
10.4	Using NPV for Other Corporate Decisions	323		Multi-Period Risk-Adjusted Discount Rates	368
10.5	Evaluating Real Investments with the Internal Rate of Return	324		Empirical Failures of the CAPM and APT	372
	Intuition for the IRR Method	324		What if No Comparable Line of Business Exists?	372
	Numerical Iteration of the IRR	325		Estimating Beta from Scenarios: The Certainty Equivalent Method	376
	NPV and Examples of IRR	325		Defining the Certainty Equivalent Method	376
	Term Structure Issues	328	11.5	Identifying the Certainty Equivalent from Models of Risk and Return	377
	Cash Flow Sign Patterns and the Number of Internal Rates of Return	329		The CAPM, Scenarios and the Certainty Equivalent Method	379
	Sign Reversals and Multiple Internal Rates of Return	333			
	Mutually Exclusive Projects and the Internal Rate of Return	333			
10.6	Popular but Incorrect Procedures for Evaluating Real Investments	335			
	The Payback Method	336			
	The Accounting Rate of Return Criterion	336			
10.7	Summary and Conclusions	336	11.6		
	References and Additional Readings	340			
	Appendix 10A The Term Structure of Interest Rates	341			
11	Investing in Risky Projects	348			
11.1	Tracking Portfolios and Real Asset Valuation	350			

	The APT and the Certainty Equivalent Method	379	12.4	The Competitive Analysis Approach	420
	The Relation between the Certainty Equivalent Formula and the Tracking Portfolio Approach	381		Determining a Division's Contribution to Firm Value	420
11.7	Obtaining Certainty Equivalents with Risk-Free Scenarios	381	12.5	Disadvantages of the Competitive Analysis Approach	420
	A Description of the Risk-Free Scenario Method	381		When to Use the Different Approaches	420
	Implementing the Risk-Free Scenario Method in a Multi-Period Setting	384		Can These Approaches be Implemented?	421
	Providing Certainty Equivalents without Knowing It	385		Valuing Asset Classes versus Specific Assets	421
11.8	Computing Certainty Equivalents from Prices in Financial Markets	386	12.6	Tracking Error Considerations	421
	Forward Prices	386		Other Considerations	421
	Tracking Portfolios that Contain Forward Contracts	386		Summary and Conclusions	422
11.9	Summary and Conclusions	387		References and Additional Readings	426
	References and Additional Readings	390	13	Corporate Taxes and the Impact of Financing on Real Asset Valuation	428
	Appendix 11A Statistical Issues in Estimating the Cost of Capital for the Risk-Adjusted Discount Rate Method	391	13.1	Corporate Taxes and the Evaluation of Equity-Financed Capital Expenditures	430
12	Allocating Capital and Corporate Strategy	395		The Cost of Capital	430
12.1	Sources of Positive Net Present Value	396		The Risk of the Components of the Firm's Balance Sheet with Tax-Deductible Debt Interest	431
	Sources of Competitive Advantage	397		Identifying the Unlevered Cost of Capital	433
	Economies of Scope, DCF and Options	398	13.2	The Adjusted Present Value Method	434
	Option Pricing Theory as a Tool for Quantifying Economies of Scope	398		Three Sources of Value Creation for Shareholders	435
12.2	Valuing Strategic Options with the Real Options Methodology	398		Debt Capacity	436
	Valuing a Mine with no Strategic Options	399		The APV Method is Versatile and Usable with Many Valuation Techniques	436
	Valuing a Mine with an Abandonment Option	401	13.3	The Weighted Average Cost of Capital	443
	Valuing Vacant Land	404		Valuing a Business with the WACC Method When a Debt Tax Shield Exists	443
	Valuing the Option to Delay the Start of a Manufacturing Project	407		WACC Components: The Cost of Equity Financing	444
	Valuing the Option to Expand Capacity	408		WACC Components: The Cost of Debt Financing	444
	Valuing Flexibility in Production Technology: The Advantage of Being Different	412		Determining the Costs of Debt and Equity When the Project is Adopted	446
	Real Option Valuation When There is Uncertainty about the Effect of Past Events	412		The Effect of Leverage on a Firm's WACC when there are No Taxes	447
12.3	The Ratio Comparison Approach	414		The Effect of Leverage on a Firm's WACC with a Debt Interest Corporate Tax Deduction	448
	The Price/Earnings Ratio Method	415	13.4	Evaluating Individual Projects with the WACC Method	451
	When Comparison Investments are Hidden in Multi-Business Firms	415		Discounting Cash Flows to Equity Holders	455
	The Effect of Earnings Growth and Accounting Methodology on Price/Earnings Ratios	417		Positive-NPV Projects Can Reduce Share Prices When Transfers to Debt Holders Occur	455
	The Effect of Leverage on Price/Earnings Ratios	417		Computing Cash Flows to Equity Holders	456
	Adjusting for Leverage Differences	419		Valuing Cash Flow to Equity Holders	456

	Real Options versus the Risk-Adjusted Discount Rate Method	456	15.2	Distribution Policy in Frictionless Markets	500
13.5	Summary and Conclusions	457		The Miller–Modigliani Dividend Irrelevancy Theorem	500
	References and Additional Readings	461		Optimal Payout Policy in the Absence of Taxes and Transaction Costs	502
Part IV Capital Structure		465	15.3	The Effect of Taxes and Transaction Costs on Distribution Policy	503
14	How Taxes Affect Financing Choices	469		A Comparison of the Classical and Imputation Tax Systems	503
14.1	The Modigliani–Miller Theorem	471		The Tax System in the United Kingdom	504
	Slicing the Cash Flows of the Firm	471		Other Tax Systems	504
	Proof of the Modigliani–Miller Theorem	472		How Taxes Affect Dividend Policy	504
	Assumptions of the Modigliani–Miller Theorem	473		The Tax Disadvantage of Dividends	504
	The Absence of Arbitrage	475		Dividend Clienteles	506
14.2	How an Individual Investor Can ‘Undo’ a Firm’s Capital Structure Choice	475		Why do Corporations Pay Out so Much in Taxed Dividends?	506
14.3	How Risky Debt Affects the Modigliani–Miller Theorem	476	15.4	How Dividend Policy Affects Expected Equity Returns	507
	The Modigliani–Miller Theorem with Costless Bankruptcy	476		Ex-Dividend Share Price Movements	507
	Leverage Increases and Wealth Transfers	476		The Cross-Sectional Relation between Dividend Yields and Equity Returns	509
14.4	How Corporate Taxes Affect the Capital Structure Choice	478	15.5	How Dividend Taxes Affect Financing and Investment Choices	510
	How Debt Affects After-Tax Cash Flows	478		Dividends, Taxes and Financing Choices	510
	How Debt Affects the Value of the Firm	479		Dividends, Taxes and Investment Distortions	510
14.5	How Personal Taxes Affect Capital Structure	480	15.6	Personal Taxes, Payout Policy and Capital Structure	515
	The Effect of Personal Taxes on Debt and Equity Rates of Return	481	15.7	Summary and Conclusions	516
	Capital Structure Choices When Taxable Earnings Can Be Negative	484		References and Additional Readings	519
14.6	Taxes and Preference Shares	486	16	Bankruptcy Costs and Debt Holder–Equity Holder Conflicts	521
14.7	The Effect of Inflation on the Tax Gain from Leverage	487	16.1	Bankruptcy	522
14.8	The Empirical Implications of the Analysis of Debt and Taxes	488		Bankruptcy in the United Kingdom	523
	Do Firms with More Taxable Earnings Use More Debt Financing?	488		Bankruptcy in Other Countries	523
14.9	Are there Tax Advantages to Leasing?	488		The Direct Costs of Bankruptcy	524
	Operating Leases and Capital Leases	489	16.2	Debt Holder–Equity Holder Conflicts: An Indirect Bankruptcy Cost	525
	The After-Tax Costs of Leasing and Buying Capital Assets	489		Equity Holder Incentives	526
14.10	Summary and Conclusions	490		The Debt Overhang Problem	527
	References and Additional Readings	494		The Short-Sighted Investment Problem	530
	Appendix 14A How Personal Taxes Affect the Capital Structure Choice: The Miller Equilibrium	495		The Asset Substitution Problem	531
				The Incentives of a Firm to Take Higher Risks: The Case of Unistar	532
15	How Taxes Affect Dividends and Share Repurchases	497		How Do Debt Holders Respond to Shareholder Incentives?	533
15.1	How Much of Corporate Earnings is Distributed to Shareholders?	498		The Reluctance to Liquidate Problem	538
	Aggregate Dividend Payouts	498	16.3	How the Administration Process Mitigates Debt Holder–Equity Holder Incentive Problems	541
	Dividend Policies of Selected Firms	498			

16.4	How Can Firms Minimize Debt Holder–Equity Holder Incentive Problems?	542
	Protective Covenants	542
	Bank and Privately Placed Debt	544
	The Use of Short-Term versus Long-Term Debt	544
	The Use of Project Financing	545
	Management Compensation Contracts	546
16.5	Empirical Implications for Financing Choices	547
	How Investment Opportunities Influence Financing Choices	547
	How Financing Choices Influence Investment Choices	547
	Firm Size and Financing Choices	547
	Evidence from Bank-Based Economies	548
16.6	Summary and Conclusions	548
	References and Additional Readings	553
17	Capital Structure and Corporate Strategy	555
17.1	The Stakeholder Theory of Capital Structure	557
	Non-Financial Stakeholders	557
	How the Costs Imposed on Stakeholders Affect the Capital Structure Choice	557
	Financial Distress and Reputation	560
	Who Would You Rather Work For?	561
	Summary of the Stakeholder Theory	562
17.2	The Benefits of Financial Distress with Committed Stakeholders	562
	Bargaining with Unions	562
	Bargaining with the Government	564
17.3	Capital Structure and Competitive Strategy	564
	Does Debt Make Firms More or Less Aggressive Competitors?	564
	Debt and Predation	565
	Empirical Studies of the Relationship between Debt Financing and Market Share	565
17.4	Dynamic Capital Structure Considerations	568
	The Pecking Order of Financing Choices	568
	Market-Timing Behaviour of Managers	571
17.5	Empirical Evidence on the Capital Structure Choice	572
	Market Timing versus Pecking Order	572
17.6	Summary and Conclusions	574
	References and Additional Readings	577

Part V Incentives, Information and Corporate Control		581
18	How Managerial Incentives Affect Financial Decisions	583
18.1	The Separation of Ownership and Control	584
	Whom Do Managers Represent?	584
	What Factors Influence Managerial Incentives?	585
	How Management Incentive Problems Hurt Shareholder Value	585
	Why Shareholders Cannot Control Managers	586
	Changes in Corporate Governance	588
	Do Corporate Governance Problems Differ Across Countries?	591
18.2	Management Shareholdings and Market Value	591
	The Effect of Management Shareholdings on Share Prices	591
	Management Shareholdings and Firm Value: The Empirical Evidence	592
18.3	How Management Control Distorts Investment Decisions	593
	The Investment Choices Managers Prefer Outside Shareholders and Managerial Discretion	595
18.4	Capital Structure and Managerial Control	596
	The Relation between Shareholder Control and Leverage	596
	How Leverage Affects the Level of Investment	596
	A Monitoring Role for Banks	598
	A Monitoring Role for Private Equity	600
18.5	Executive Compensation	600
	The Agency Problem	600
	Is Executive Pay Closely Tied to Performance?	601
	Post-Enron Changes	602
	How Does Firm Value Relate to the Use of Performance-Based Pay?	603
	Is Executive Compensation Tied to Relative Performance?	603
	Equity-Based versus Earnings-Based Performance Pay	604
	Compensation Issues, Mergers and Divestitures	606
18.6	Summary and Conclusions	607
	References and Additional Readings	610
19	The Information Conveyed by Financial Decisions	613
19.1	Management Incentives When Managers Have Better Information than Shareholders	614

	Conflicts between Short-Term and Long-Term Share Price Maximization	615		Mergers Can Reduce the Information Contained in Share Prices	657
19.2	Earnings Manipulation	617		A Summary of the Gains and Costs of Diversification	657
	Incentives to Manipulate Accounting Figures	617	20.6	Empirical Evidence on Takeover Gains for Non-LBO Takeovers	658
19.3	Short-Sighted Investment Choices	618		Equity Returns Around the Time of Takeover Announcements	658
	Management's Reluctance to Undertake Long-Term Investments	618		Empirical Evidence on the Gains from Diversification	661
	What Determines a Manager's Incentive to be Short-Sighted?	619		Accounting Studies	661
19.4	The Information Content of Dividend and Share Repurchase Announcements	619	20.7	Empirical Evidence on the Gains from Leveraged Buyouts (LBOs)	662
	Empirical Evidence on Equity Returns at the Time of Dividend Announcements	620		How Leveraged Buyouts Affect Share Prices	662
	A Dividend Signalling Model	620		Cash Flow Changes Following Leveraged Buyouts	663
	Dividend Policy and Investment Incentives	624	20.8	Valuing Acquisitions	664
	Dividends Attract Attention	626		Valuing Synergies	665
	Dividends Across Countries	626		A Guide to the Valuation of Synergies	665
19.5	The Information Content of the Debt–Equity Choice	626	20.9	Financing Acquisitions	668
	A Signalling Model Based on the Tax Gain/Financial Distress Cost Trade-Off	627		Tax Implications of the Financing of a Merger or an Acquisition	669
	Adverse Selection Theory	628		Capital Structure Implications in the Financing of a Merger or an Acquisition	669
19.6	Empirical Evidence	633		Information Effects from the Financing of a Merger or an Acquisition	669
	What is an Event Study?	634	20.10	Bidding Strategies in Hostile Takeovers	670
	Event Study Evidence	634		The Free-Rider Problem	670
	Behavioural Explanations	638		Solutions to the Free-Rider Problem	671
	How Does the Availability of Cash Affect Investment Expenditures?	638	20.11	Management Defences	674
19.7	Summary and Conclusions	639		Greenmail	674
	References and Additional Readings	643		Staggered Boards and Supermajority Rules	674
20	Mergers and Acquisitions	646		Poison Pills	674
20.1	A History of Mergers and Acquisitions	647		Are Takeover Defences Good for Shareholders?	675
20.2	Types of Merger and Acquisition	649	20.12	Summary and Conclusions	676
	Strategic Acquisitions	649		References and Additional Readings	678
	Financial Acquisitions	649			
	Conglomerate Acquisitions	650			
	Summary of Mergers and Acquisitions	651			
20.3	Recent Trends in Takeover Activity	651			
	The Fall and Rise of Hostile Takeovers	651			
20.4	Sources of Takeover Gains	651			
	Tax Motivations	652			
	Operating Synergies	653			
	Management Incentive Issues and Takeovers	653			
	Financial Synergies	655			
	Is an Acquisition Required to Realize Tax Gains, Operating Synergies, Incentive Gains or Diversification?	656			
20.5	The Disadvantages of Mergers and Acquisitions	657			
	Conglomerates Can Misallocate Capital	657			
Part VI Risk Management					683
21	Risk Management and Corporate Strategy	685			
21.1	Risk Management and the Modigliani–Miller Theorem	686			
	The Investor's Hedging Choice	686			
	Implications of the Modigliani–Miller Theorem for Hedging	687			
	Relaxing the Modigliani–Miller Assumptions	687			
21.2	Why Do Firms Hedge?	688			
	A Simple Analogy	688			
	How Does Hedging Increase Expected Cash Flows?	688			

	How Hedging Reduces Taxes	689	Volatility as a Measure of Risk	
	Hedging to Avoid Financial Distress Costs	689	Exposure	717
	Hedging to Help Firms Plan for Their Capital Needs	692	Value at Risk as a Measure of Risk	
	How Hedging Improves Executive Compensation Contracts and Performance Evaluation	693	Exposure	717
	How Hedging Improves Decision-Making	695	22.2 Hedging Short-Term Commitments with Maturity-Matched Forward Contracts	719
21.3	The Motivation to Hedge Affects What is Hedged	697	Review of Forward Contracts	719
21.4	How Should Companies Organize Their Hedging Activities?	698	How Forward-Date Obligations Create Risk	719
21.5	Do Risk Management Departments Always Hedge?	698	Using Forwards to Eliminate the Oil Price Risk of Forward Obligations	720
21.6	How Hedging Affects the Firm's Stakeholders	699	Using Forward Contracts to Hedge Currency Obligations	721
	How Hedging Affects Debt Holders and Equity Holders	699	22.3 Hedging Short-Term Commitments with Maturity-Matched Futures Contracts	722
	How Hedging Affects Employees and Customers	699	Review of Futures Contracts, Marking to Market and Futures Prices	723
	Hedging and Managerial Incentives	699	Tailing the Futures Hedge	723
21.7	The Motivation to Manage Interest Rate Risk	700	22.4 Hedging and Convenience Yields When Convenience Yields Do Not Affect Hedge Ratios	725
	Alternative Liability Streams	700	How Supply and Demand for Convenience Determine Convenience Yields	726
	How Do Corporations Choose between Different Liability Streams?	702	Hedging the Risk from Holding Spot Positions in Commodities with Convenience Yields	726
21.8	Foreign Exchange Risk Management	703	22.5 Hedging Long-Dated Commitments with Short-Maturing Futures or Forward Contracts	728
	Types of Foreign Exchange Risk	703	Maturity, Risk and Hedging in the Presence of a Constant Convenience Yield	728
	Why Do Exchange Rates Change?	705	Quantitative Estimates of the Oil Futures Stack Hedge Error	729
	Why Most Firms Do Not Hedge Economic Risk	707	Intuition for Hedging with a Maturity Mismatch in the Presence of a Constant Convenience Yield	731
21.9	Which Firms Hedge? The Empirical Evidence	708	Convenience Yield Risk Generated by Correlation between Spot Prices and Convenience Yields	731
	Larger Firms are More Likely than Smaller Firms to Use Derivatives	708	Basis Risk	733
	Firms with More Growth Opportunities are More Likely to Use Derivatives	708	22.6 Hedging with Swaps	734
	Highly Levered Firms are More Likely to Use Derivatives	709	Review of Swaps	734
	Risk Management Practices in the Gold Mining Industry	709	Hedging with Interest Rate Swaps	734
	Risk Management Practices in the Oil and Gas Industry	709	Hedging with Currency Swaps	735
21.10	Summary and Conclusions	710	22.7 Hedging with Options	737
	References and Additional Readings	712	Why Option Hedging is Desirable	737
22	The Practice of Hedging	714	Covered Option Hedging: Caps and Floors	738
22.1	Measuring Risk Exposure	715	Delta Hedging with Options	740
	Using Regression to Estimate the Risk Exposure	716	22.8 Factor-Based Hedging	742
	Measuring Risk Exposure with Simulations	716	Computing Factor Betas for Cash Flow Combinations	742
	Pre-Specification of Factor Betas from Theoretical Relations	716	Computing Hedge Ratios	743

	Direct Hedge Ratio Computations:		Durations of Bond Portfolios	765
	Solving Systems of Equations	743	How Duration Changes as Interest	
22.9	Hedging with Regression	745	Rates Increase	766
	Hedging a Cash Flow with a		23.3 Linking Duration to PV01	767
	Single Financial Instrument	745	Duration as a Derivative	767
	Hedging with Multiple Regression	747	Formulae Relating Duration to PV01	768
22.10	Minimum Variance Portfolios and		Hedging with PV01s or Durations	769
	Mean-Variance Analysis	747	23.4 Immunization	771
	Hedging to Arrive at the Minimum		Ordinary Immunization	771
	Variance Portfolio	747	Immunization Using PV01	774
	Hedging to Arrive at the Tangency		Practical Issues to Consider	774
	Portfolio	749	Contingent Immunization	775
22.11	Summary and Conclusions	750	Immunization and Large Changes	
	References and Additional Readings	755	in Interest Rates	775
			23.5 Convexity	776
23	Interest Rate Risk Management	756	Defining and Interpreting Convexity	776
23.1	The Value of a One-Basis-Point		Estimating Price Sensitivity to Yield	777
	Decrease (PV01)	757	Misuse of Convexity	778
	Methods Used to Compute PV01		23.6 Interest Rate Hedging When the	
	for Traded Bonds	758	Term Structure is Not Flat	782
	Using PV01 to Estimate Price Changes	759	The Yield-Beta Solution	782
	PV01s of Various Bond Types and		The Parallel Term Structure Shift	
	Portfolios	760	Solution: Term Structure PV01	783
	Using PV01s to Hedge Interest Rate Risk	760	MacAuley Duration and Present Value	
	How Compounding Frequency		Duration	783
	Affects the Stated PV01	761	Present Value Duration as a Derivative	785
23.2	Duration	762	23.7 Summary and Conclusions	786
	The Duration of Zero-Coupon Bonds	762	References and Additional Readings	788
	The Duration of Coupon Bonds	764		
	Durations of Discount and		Appendix A: Mathematical Tables	791
	Premium-Coupon Bonds	764	Index	801
	How Duration Changes as Time			
	Elapses	765		