

# Contents

<b>About the Authors</b>	<b>xiii</b>
<b>Preface</b>	<b>xv</b>

## **PART I**

---

<b>Overview</b>	<b>1</b>
<b>1 Foundation to European Corporate Finance</b>	<b>3</b>
1.1 European Equity Market	3
1.2 Companies in Britain	10
1.3 Companies in Germany	12
1.4 Companies in France	14
1.5 Companies in the Netherlands	16
1.6 Corporate Governance and Corporate Finance	18
1.7 European Corporate Reporting	20
1.8 European Corporate Tax Systems	25
1.9 Summary and Conclusions	27
<b>Appendix 1A</b> A Summary of the EU's Fourth Directive	27
<b>Appendix 1B</b> A Summary of the EU's Seventh Directive	28
<b>2 Introduction to Corporate Finance</b>	<b>29</b>
2.1 What Is Corporate Finance?	30
2.2 Corporate Securities as Contingent Claims on Total Firm Value	35
2.3 The Corporate Firm	36
2.4 Goals of the Corporate Firm	40
2.5 Financial Markets	42
2.6 Outline of the Text	44
<b>3 Accounting Statements and Cash Flow</b>	<b>45</b>
3.1 The Balance Sheet	45
3.2 The Profit and Loss Account (also called Income Statement)	48
3.3 Net Working Capital	50
3.4 Financial Cash Flow	51
3.5 Summary and Conclusions	53
<b>Appendix 3A</b> Financial Statement Analysis	56
<b>Appendix 3B</b> Statement of Cash Flow	62

## PART II

<b>Value and Capital Budgeting</b>	<b>65</b>
<b>4 Financial Markets and Net Present Value: First Principles of Finance</b>	<b>67</b>
4.1 The Financial Market Economy	68
4.2 The Competitive Market	70
4.3 The Basic Principle	72
4.4 Illustrating the Investment Decision	72
4.5 Corporate Investment Decision-Making	75
4.6 Summary and Conclusions	77
<b>5 Net Present Value</b>	<b>78</b>
5.1 The One-Period Case	78
5.2 The Multiperiod Case	82
5.3 Compounding Periods	90
5.4 Simplifications	94
5.5 What Is a Firm Worth?	104
5.6 Summary and Conclusions	106
<b>6 How to Value Bonds and Shares</b>	<b>111</b>
6.1 Definition and Example of a Bond	111
6.2 How to Value Bonds	111
6.3 Bond Concepts	115
6.4 The Present Value of Ordinary Shares	117
6.5 Estimates of Parameters in the Dividend-Discount Model	121
6.6 Growth Opportunities	124
6.7 The Dividend-Growth Model and the NPVGO Model (Advanced)	128
6.8 Price-Earnings Ratio	130
6.9 Summary and Conclusions	133
<b>Appendix 6A The Term Structure of Interest Rates Spot Rates and Yield to Maturity</b>	<b>137</b>
<b>7 Some Other Investment Rules</b>	<b>146</b>
7.1 Why Use Net Present Value?	146
7.2 The Payback Period Rule	147
7.3 The Discounted Payback Period Rule	150
7.4 The Average Accounting Return	150
7.5 The Internal Rate of Return	153
7.6 Problems with the IRR Approach	156
7.7 The Profitability Index	165
7.8 The Practice of Capital Budgeting	168
7.9 Summary and Conclusions	168
<b>8 Net Present Value and Capital Budgeting</b>	<b>174</b>
8.1 Incremental Cash Flows	174
8.2 The Baldwin Company: An Example	176
8.3 Inflation and Capital Budgeting	182
8.4 Investments of Unequal Lives: The Equivalent Annual Cost Method	184
8.5 Summary and Conclusions	189

<b>9</b>	<b>Strategy and Analysis in Using Net Present Value</b>	<b>193</b>
9.1	Corporate Strategy and Positive NPV	193
9.2	Decision Trees	195
9.3	Sensitivity Analysis, Scenario Analysis and Break-even Analysis	197
9.4	Options	204
9.5	Summary and Conclusions	206

## PART III

<b>Risk</b>	<b>209</b>
<b>10 Capital Market Theory: An Overview</b>	<b>211</b>
10.1	Returns 212
10.2	Holding-Period Returns 216
10.3	Return Statistics in the USA 221
10.4	Average Stock Returns and Risk-Free Returns in the USA 222
10.5	Risk Statistics in the USA 223
10.6	The Discount Rate for Risky Projects 225
10.7	Risk and Beta 228
10.8	British Evidence 229
10.9	European Returns 231
10.10	Summary and Conclusions 234
<b>Appendix 10A</b>	<b>The Historical Market Risk Premium: The Very Long Run 236</b>
<b>11 Return and Risk: The Capital-Asset-Pricing Model (CAPM)</b>	<b>238</b>
11.1	Individual Securities 238
11.2	Expected Return, Variance and Covariance 239
11.3	The Return and Risk for Portfolios 244
11.4	The Efficient Set for Two Assets 249
11.5	The Efficient Set for Many Securities 253
11.6	Diversification: An Example 257
11.7	Riskless Borrowing and Lending 260
11.8	Market Equilibrium 264
11.9	Relationship between Risk and Expected Return (CAPM) 268
11.10	Summary and Conclusions 271
<b>Appendix 11A</b>	<b>Is Beta Dead? 275</b>
<b>12 An Alternative View of Risk and Return: The Arbitrage Pricing Theory</b>	<b>277</b>
12.1	Factor Models: Announcements, Surprises and Expected Returns 278
12.2	Risk: Systematic and Unsystematic 279
12.3	Systematic Risk and Betas 280
12.4	Portfolios and Factor Models 284
12.5	Betas and Expected Returns 288
12.6	The Capital-Asset-Pricing Model and the Arbitrage Pricing Model 291
12.7	Parametric Approaches to Asset Pricing 292
12.8	Summary and Conclusions 294
<b>13 Risk, Return and Capital Budgeting</b>	<b>299</b>
13.1	The Cost of Equity Capital 300
13.2	Determinants of Beta 305

13.3	Extensions of the Basic Model	308
13.4	Summary and Conclusions	312
<b>Appendix 13A</b>	<b>Tax Systems and Capital Budgeting</b>	<b>314</b>

## PART IV

---

<b>Capital Structure and Dividend Policy</b>	<b>317</b>
<b>14 Corporate Financing Decisions and Efficient Capital Markets</b>	<b>319</b>
14.1 Can Financing Decisions Create Value?	319
14.2 A Description of Efficient Capital Markets	322
14.3 The Different Types of Efficiency	325
14.4 The Evidence	330
14.5 Implications for Corporate Finance	338
14.6 Summary and Conclusions	341
<b>15 Long-Term Financing: An Introduction</b>	<b>344</b>
15.1 Ordinary Shares	344
15.2 Corporate Long-Term Debt: The Basics	349
15.3 Preference Shares	352
15.4 Patterns of Financing	354
15.5 Summary and Conclusions	355
<b>16 Capital Structure: Basic Concepts</b>	<b>357</b>
16.1 The Capital-Structure Question and the Pie Theory	357
16.2 Maximizing Firm Value versus Maximizing Shareholder Interests	358
16.3 Can an Optimal Capital Structure Be Determined?	360
16.4 Financial Leverage and Firm Value: An Example	362
16.5 Modigliani and Miller: Proposition II (No Taxes)	366
16.6 Taxes	374
16.7 Summary and Conclusions	384
<b>17 Capital Structure: Limits to the Use of Debt</b>	<b>388</b>
17.1 Costs of Financial Distress	388
17.2 Description of Costs	391
17.3 Can Costs of Debt Be Reduced?	395
17.4 Integration of Tax Effects and Financial Distress Costs	396
17.5 Shirking and Perquisites: A Note on Agency Cost of Equity	399
17.6 Growth and the Debt-Equity Ratio	400
17.7 How Firms Establish Capital Structure	402
17.8 Financial Distress, Bankruptcy and Reorganization	404
17.9 Summary and Conclusions	406
<b>18 Valuation and Capital Budgeting for the Levered Firm</b>	<b>408</b>
18.1 Adjusted-Present-Value Approach	408
18.2 Flow-to-Equity Approach	410
18.3 Weighted-Average-Cost-of-Capital Method	412
18.4 A Comparison of the APV, FTE and WACC Approaches	413
18.5 Capital Budgeting for Projects that Are Not Scale-Enhancing	416
18.6 APV Example	418
18.7 Beta and Leverage	421

18.8	Summary and Conclusions	423
<b>Appendix 18A</b>	<b>The Adjusted-Present-Value Approach to Valuing Leveraged Buyouts</b>	<b>426</b>
<b>19</b>	<b>Dividend Policy: Why Does It Matter?</b>	<b>431</b>
19.1	Different Types of Dividends	431
19.2	Standard Method of Cash Dividend Payment	432
19.3	The Benchmark Case: An Illustration of the Irrelevance of Dividend Policy	433
19.4	Taxes, Issuance Costs and Dividends	438
19.5	Expected Return, Dividends and Personal Taxes	441
19.6	Real-World Factors Favouring a High-Dividend Policy	444
19.7	A Resolution of Real-World Factors?	446
19.8	What We Know and Do Not Know about Dividend Policy	448
19.9	Summary and Conclusions	450
 <b>PART V</b>		
	<b>Long-Term Financing</b>	<b>453</b>
<b>20</b>	<b>Issuing Equity Securities to the Public</b>	<b>455</b>
20.1	How Shares are Issued to the Public	455
20.2	The Cost of New Issues	459
20.3	Rights	460
20.4	The Announcement of New Equity and the Value of the Firm	464
20.5	Venture Capital	465
20.6	Bonus Issues or Scrip Issues	466
20.7	Summary and Conclusions	466
<b>21</b>	<b>Long-Term Debt</b>	<b>468</b>
21.1	Long-Term Debt: A Review	468
21.2	The Public Issue of Bonds	469
21.3	Bond Refunding	473
21.4	Bond Ratings	477
21.5	Some Different Types of Bonds	481
21.6	Direct Placement Compared to Public Issues	484
21.7	Summary and Conclusions	485
<b>22</b>	<b>Options and Corporate Finance</b>	<b>487</b>
22.1	Options	487
22.2	Call Options	488
22.3	Put Options	490
22.4	Writing Options	491
22.5	Reading the <i>Financial Times</i>	493
22.6	Combinations of Options	493
22.7	Valuing Options	496
22.8	An Option-Pricing Formula	501
22.9	An Option-Pricing Table	509
22.10	Stocks and Bonds as Options	510
22.11	Capital-Structure Policy and Options	516
22.12	Investment in Real Projects and Options	517
22.13	Summary and Conclusions	520

<b>23</b>	<b>Warrants and Convertibles</b>	<b>524</b>
23.1	Warrants	524
23.2	The Difference between Warrants and Call Options	526
23.3	Warrant Pricing and the Black–Scholes Model (Advanced)	528
23.4	Convertible Bonds	530
23.5	The Value of Convertible Bonds	530
23.6	Reasons for Issuing Warrants and Convertibles	533
23.7	Why Are Warrants and Convertibles Issued?	536
23.8	Conversion Policy	538
23.9	Summary and Conclusions	539
<b>24</b>	<b>Leasing</b>	<b>542</b>
24.1	Leasing—The Basics	542
24.2	European Lease Accounting	545
24.3	The Cash Flows of Leasing	547
24.4	A Detour on Discounting and Debt Capacity with Corporate Taxes	549
24.5	NPV Analysis of the Lease-versus-Buy Decision	551
24.6	Debt Displacement and Lease Valuation	552
24.7	Does Leasing Ever Pay: The Base Case	556
24.8	Reasons for Leasing	557
24.9	Some Unanswered Questions	560
24.10	Summary and Conclusions	561
	<b>Appendix 24A</b> APV Approach to Leasing	563
 <b>PART VI</b>		
<b>Financial Planning, Short-Term Finance and Working Capital Management</b>		<b>565</b>
<b>25</b>	<b>Corporate Financial Models and Long-Term Planning</b>	<b>567</b>
25.1	What Is Corporate Financial Planning?	567
25.2	A Financial-Planning Model: The Ingredients	568
25.3	What Determines Growth?	571
25.4	Some Caveats of Financial-Planning Models	575
25.5	Summary and Conclusions	576
<b>26</b>	<b>Short-Term Finance and Planning</b>	<b>578</b>
26.1	Tracing Cash and Net Working Capital	579
26.2	Defining Cash in Terms of Other Elements	580
26.3	The Operating Cycle and the Cash Cycle	582
26.4	Some Aspects of Short-Term Financial Policy	585
26.5	Cash Budgeting	590
26.6	The Short-Term Financial Plan	593
26.7	Managing the Collection and Disbursement of Cash	595
26.8	Summary and Conclusions	597
<b>27</b>	<b>Credit Management</b>	<b>600</b>
27.1	Terms of the Sale	601
27.2	The Decision to Grant Credit: Risk and Information	605
27.3	Optimal Credit Policy	608
27.4	Credit Analysis	609

27.5	Collection Policy	610
27.6	How to Finance Trade Credit	612
27.7	Summary and Conclusions	613

## PART VII

<b>Special Topics</b>	<b>615</b>
<b>28 Mergers and Acquisitions</b>	<b>617</b>
28.1 The Basic Forms of Acquisition	618
28.2 Accounting for Acquisitions	620
28.3 Determining the Synergy from an Acquisition	622
28.4 Source of Synergy from Acquisitions	623
28.5 Calculating the Value of the Firm after an Acquisition	627
28.6 A Cost to Shareholders from Reduction in Risk	628
28.7 Two 'Bad' Reasons for Mergers	631
28.8 The NPV of a Merger	632
28.9 Defensive Tactics	636
28.10 Some Evidence on Acquisitions	638
28.11 Summary and Conclusions	640
<b>29 International Corporate Finance and Derivative Securities</b>	<b>644</b>
29.1 The Foreign Exchange Markets	645
29.2 Eurocurrency Markets	646
29.3 Currency Calculations	647
29.4 Foreign Exchange Quotations	654
29.5 International Investment Decisions	658
29.6 International Financing Decisions	663
29.7 Derivatives and Hedging of Risk	666
29.8 Summary and Conclusions	669
<b>Appendix 29A A Deductive Proof of the Four-Way Equivalence Model</b>	<b>672</b>
<b>30 The Road to Economic and Monetary Union</b>	<b>677</b>
30.1 Principal Features of the EMS	677
30.2 Economic and Monetary Union	678
30.3 Summary and Conclusions	683
<b>Appendix A Mathematical Tables</b>	<b>685</b>
<b>Appendix B Selected Answers to End-of-Chapter Problems</b>	<b>703</b>
<b>Glossary</b>	<b>707</b>
<b>Subject Index</b>	<b>721</b>