PART ONE OVERVIEW

CHAPTER ONE
Introduction to Corporate Finance  35
1.1 What Is Corporate Finance?  35
   The Balance Sheet Model of the Firm  36
   The Financial Manager  37
1.2 The Corporate Firm  38
   The Sole Proprietorship  38
   The Partnership  38
   The Corporation  39
   A Corporation by Another Name...  41
1.3 The Importance of Cash Flows  41
1.4 The Goal of Financial Management  44
   Possible Goals  44
   The Goal of Financial Management  45
   A More General Goal  46
1.5 The Agency Problem and Control of the Corporation  46
   Agency Relationships  47
   Management Goals  47
   Do Managers Act in the Stockholders' Interests?  48
   Stakeholders  49
1.6 Regulation  49
   The Securities Act of 1933 and the Securities Exchange Act of 1934  50
Summary and Conclusions  51
Closing Case: East Coast Yachts  53

CHAPTER TWO
Financial Statements and Cash Flow  54
2.1 The Balance Sheet  54
   Accounting Liquidity  55
   Debt versus Equity  56
   Value versus Cost  56
2.2 The Income Statement  57
   Generally Accepted Accounting Principles  58
   Noncash Items  58
   Time and Costs  59
2.3 Taxes  59
   Corporate Tax Rates  60
   Average versus Marginal Tax Rates  60
2.4 Net Working Capital  62
2.5 Financial Cash Flow  62
2.6 The Accounting Statement of Cash Flows  65
   Cash Flow from Operating Activities  65
   Cash Flow from Investing Activities  66
   Cash Flow from Financing Activities  67
Summary and Conclusions  68
Closing Case: Cash Flows at East Coast Yachts  76

CHAPTER THREE
Financial Statements Analysis and Financial Models  78
3.1 Financial Statements Analysis  78
   Standardizing Statements  79
PART TWO  VALUATION AND CAPITAL BUDGETING

CHAPTER FOUR  Discounted Cash Flow Valuation  118

4.1 Valuation: The One-Period Case  118

4.2 The Multiperiod Case  122

Future Value and Compounding  122

The Power of Compounding: A Digression  125

Present Value and Discounting  126

The Algebraic Formula  130

4.3 Compounding Periods  131

Distinction between Stated Annual Interest Rate and Effective Annual Rate  133

Compounding over Many Years  135

Continuous Compounding  135

4.4 Simplifications  137

Perpetuity  137

Growing Perpetuity  138

Annuity  140

Trick 1: A Delayed Annuity  142

Trick 2: Annuity Due  143

Trick 3: The Infrequent Annuity  144

Trick 4: Equating Present Value of Two Annuities  144

Growing Annuity  145

4.5 Loan Types and Loan Amortization  147

Pure Discount Loans  147

Interest-Only Loans  147

Amortized Loans  148

4.6 What Is a Firm Worth?  151

Summary and Conclusions  153

Closing Case: The MBA Decision  165
Definition of Independent and Mutually Exclusive Projects 244

Two General Problems Affecting Both Independent and Mutually Exclusive Projects 245
  Problem 1: Investing or Financing? 246
  Problem 2: Multiple Rates of Return 246
NPV Rule 247
Modified IRR 247
The Guarantee against Multiple IRRs 248
General Rules 248

Problems Specific to Mutually Exclusive Projects 249
  The Scale Problem 249
  The Timing Problem 251

Redeeming Qualities of IRR 253
A Test 253

7.7 The Profitability Index 254
Calculation of Profitability Index 254
  Application of the Profitability Index 254

7.8 The Practice of Capital Budgeting 256
Summary and Conclusions 258
Closing Case: Bullock Gold Mining 269

CHAPTER EIGHT
Making Capital Investment Decisions 270

8.1 Incremental Cash Flows 270
  Cash Flows—Not Accounting Income 270
Sunk Costs 271
Opportunity Costs 271
Side Effects 272
Allocated Costs 272

8.2 The Baldwin Company: An Example 273
An Analysis of the Project 274
  Investments 274
  Income and Taxes 275
  Salvage Value 276
  Cash Flow 277
  Net Present Value 277
Which Set of Books? 277
A Note on Net Working Capital 277
A Note on Depreciation 278
Interest Expense 279

8.3 Inflation and Capital Budgeting 279
Discounting: Nominal or Real? 280
8.4 Alternative Definitions of Operating Cash Flow 282
  The Bottom-Up Approach 283
  The Top-Down Approach 283
  The Tax Shield Approach 283
Conclusion 284
8.5 Investments of Unequal Lives: The Equivalent Annual Cost Method 284
  The General Decision to Replace 286
Summary and Conclusions 288
Closing Cases: Expansion at East Coast Yachts 299
  Bethesda Mining Company 299

CHAPTER NINE
Risk Analysis, Real Options, and Capital Budgeting 301

9.1 Decision Trees 301
  Warning 303
9.2 Sensitivity Analysis, Scenario Analysis, and Break-Even Analysis 303
  Sensitivity Analysis and Scenario Analysis 304
    Revenues 304
    Costs 305
  Break-Even Analysis 307
    Accounting Profit 307
    Present Value 309
9.3 Monte Carlo Simulation 310
  Step 1: Specify the Basic Model 310
  Step 2: Specify a Distribution for Each Variable in the Model 310
  Step 3: The Computer Draws One Outcome 312
  Step 4: Repeat the Procedure 312
  Step 5: Calculate NPV 312
9.4 Real Options 313
  The Option to Expand 313
  The Option to Abandon 314
  Timing Options 316
Summary and Conclusions 317
Closing Case: Bunyan Lumber, LLC 325

CONTENTS
12.3 Estimation of Beta 402
   Real-World Betas 403
   Stability of Beta 403
   Using an Industry Beta 404
12.4 Beta and Covariance 406
   Beta and Covariance 406
12.5 Determinants of Beta 407
   Cyclicalities of Revenues 407
   Operating Leverage 407
   Financial Leverage and Beta 407
12.6 Dividend Discount Model 409
   Comparison of DDM and CAPM 409
   Can a Low-Dividend or a No-Dividend Stock Have a High Cost of Capital? 410
12.7 Cost of Capital for Divisions and Projects 411
12.8 Cost of Fixed Income Securities 412
   Cost of Debt 412
   Cost of Preferred Stock 413
12.9 The Weighted Average Cost of Capital 414
12.10 Estimating Eastman Chemical's Cost of Capital 417
   Eastman's Cost of Equity 417
   Eastman's Cost of Debt 418
   Eastman's WACC 419
12.11 Flotation Costs and the Weighted Average Cost of Capital 419
   The Basic Approach 419
   Flotation Costs and NPV 420
   Internal Equity and Flotation Costs 421
Summary and Conclusions 421
Closing Case: The Cost of Capital for Goff Computer, Inc. 428

PART FOUR CAPITAL STRUCTURE AND DIVIDEND POLICY

CHAPTER THIRTEEN
Efficient Capital Markets and Behavioral Challenges 429
13.1 Can Financing Decisions Create Value? 429
13.2 A Description of Efficient Capital Markets 431
   Foundations of Market Efficiency 433
   Rationality 433
   Independent Deviations from Rationality 433
   Arbitrage 434
13.3 The Different Types of Efficiency 434
   The Weak Form 434
   The Semistrong and Strong Forms 435
   Some Common Misconceptions about the Efficient Market Hypothesis 436
   The Efficacy of Dart Throwing 437
   Price Fluctuations 437
   Stockholder Disinterest 437
13.4 The Evidence 437
   The Weak Form 438
   The Semistrong Form 439
   Event Studies 440
   The Record of Mutual Funds 441
   The Strong Form 442
13.5 The Behavioral Challenge to Market Efficiency 443
   Rationality 443
   Independent Deviations from Rationality 443
   Arbitrage 444
13.6 Empirical Challenges to Market Efficiency 444
13.7 Reviewing the Differences 450
   Representativeness 450
   Conservatism 450
13.8 Implications for Corporate Finance 451
   1. Accounting Choices, Financial Choices, and Market Efficiency 451
   2. The Timing Decision 451
   3. Speculation and Efficient Markets 454
   4. Information in Market Prices 454
Summary and Conclusions 456
Closing Case: Your 401(k) Account at East Coast Yachts 462

CHAPTER FOURTEEN
Capital Structure: Basic Concepts 464
14.1 The Capital Structure Question and the Pie Theory 464
14.2 Maximizing Firm Value versus Maximizing Stockholder Interests 465
14.3 Financial Leverage and Firm Value: An Example 467
Leverage and Returns to Shareholders 467
The Choice between Debt and Equity 469
A Key Assumption 471

14.4 Modigliani and Miller: Proposition II (No Taxes) 471
Risk to Equityholders Rises with Leverage 471
Proposition II: Required Return to Equityholders Rises with Leverage 472
MM: An Interpretation 477

14.5 Taxes 478
The Basic Insight 478
Present Value of the Tax Shield 480
Value of the Levered Firm 480
Expected Return and Leverage under Corporate Taxes 482
The Weighted Average Cost of Capital $R_{WACC}$ and Corporate Taxes 483
Stock Price and Leverage under Corporate Taxes 483

Summary and Conclusions 485
Closing Case: Stephenson Real Estate Recapitalization 492

CHAPTER FIFTEEN
Capital Structure: Limits to the Use of Debt 493
15.1 Costs of Financial Distress 493
Direct Bankruptcy Costs 494
Indirect Bankruptcy Costs 494
Agency Costs 495
Summary of Selfish Strategies 497
15.2 Can Costs of Debt Be Reduced? 498
Protective Covenants 498
Consolidation of Debt 499
15.3 Integration of Tax Effects and Financial Distress Costs 499
Pie Again 499
15.4 Signaling 502
15.5 Shirking, Perquisites, and Bad Investments: A Note on Agency Cost of Equity 503
Effect of Agency Costs of Equity on Debt-Equity Financing 505
Free Cash Flow 505
15.6 The Pecking-Order Theory 506
Rules of the Pecking Order 507
Rule #1 Use Internal Financing 507
Rule #2 Issue Safe Securities First 508
Implications 508
15.7 Growth and the Debt-Equity Ratio 509
No Growth 509
Growth 509
15.8 How Firms Establish Capital Structure 511
15.9 A Quick Look at the Bankruptcy Process 515
Liquidation and Reorganization 516
Bankruptcy Liquidation 516
Bankruptcy Reorganization 517
Financial Management and the Bankruptcy Process 517
Agreements to Avoid Bankruptcy 518
Summary and Conclusions 518
Closing Case: McKenzie Corporation's Capital Budgeting 523

CHAPTER SIXTEEN
Dividends and Other Payouts 524
16.1 Different Types of Dividends 524
16.2 Standard Method of Cash Dividend Payment 525
16.3 The Benchmark Case: An Illustration of the Irrelevance of Dividend Policy 527
Current Policy: Dividends Set Equal to Cash Flow 527
Alternative Policy: Initial Dividend Is Greater than Cash Flow 528
The Indifference Proposition 528
Homemade Dividends 528
A Test 530
Dividends and Investment Policy 531
16.4 Repurchase of Stock 531
Dividend versus Repurchase: Conceptual Example 532
Dividends versus Repurchases: Real-World Considerations 533
1. Flexibility 533
2. Executive Compensation 533

CONTENTS
3. Offset to Dilution 534
4. Repurchase as Investment 534
5. Taxes 534

16.5 Personal Taxes, Issuance Costs, and Dividends 534
   Firms without Sufficient Cash to Pay a Dividend 535
   Firms with Sufficient Cash to Pay a Dividend 536
   Summary on Personal Taxes 537

16.6 Real-World Factors Favoring a High-Dividend Policy 537
   Desire for Current Income 537
   Behavioral Finance 538
   Agency Costs 539
   Information Content of Dividends and Dividend Signaling 540

16.7 The Clientele Effect: a Resolution of Real-World Factors? 541

16.8 What We Know and Do Not Know about Dividend Policy 542
   Dividends and Dividend Payers 542
   Corporations Smooth Dividends 544
   Payouts Provide Information to the Market 545
   Putting It All Together 545
   Some Survey Evidence on Dividends 548

16.9 Stock Dividends and Stock Splits 549
   Some Details on Stock Splits and Stock Dividends 549
   Example of a Small Stock Dividend 549
   Example of a Stock Split 550
   Example of a Large Stock Dividend 550
   Value of Stock Splits and Stock Dividends 550
   The Benchmark Case 550
   Popular Trading Range 551
   Reverse Splits 551

Summary and Conclusions 552
Closing Case: Electronic Timing, Inc. 559

PART FIVE SPECIAL TOPICS

CHAPTER SEVENTEEN Options and Corporate Finance 561

17.1 Options 561
17.2 Call Options 562
   The Value of a Call Option at Expiration 562

17.3 Put Options 563
   The Value of a Put Option at Expiration 563
17.4 Selling Options 565
17.5 Option Quotes 566
17.6 Combinations of Options 567
17.7 Valuing Options 570
   Bounding the Value of a Call 570
   Lower Bound 570
   Upper Bound 570
   The Factors Determining Call Option Values 570
   Exercise Price 570
   Expiration Date 571
   Stock Price 571
   The Key Factor: The Variability of the Underlying Asset 572
   The Interest Rate 573
   A Quick Discussion of Factors Determining Put Option Values 573
17.8 An Option Pricing Formula 574
   A Two-State Option Model 575
   Determining the Delta 575
   Determining the Amount of Borrowing 576
   Risk-Neutral Valuation 576
   The Black–Scholes Model 577
17.9 Stocks and Bonds as Options 581
   The Firm Expressed in Terms of Call Options 582
   The Stockholders 582
   The Bondholders 583
   The Firm Expressed in Terms of Put Options 584
   The Stockholders 584
   The Bondholders 584
   A Resolution of the Two Views 584
   A Note on Loan Guarantees 586
17.10 Options and Corporate Decisions: Some Applications 586
   Mergers and Diversification 587
   Options and Capital Budgeting 588
17.11 Investment in Real Projects and Options 590
Summary and Conclusions 592
Closing Case: Exotic Cuisines Employee Stock Options 601
CHAPTER EIGHTEEN
Short-Term Finance and Planning  602

18.1 Tracing Cash and Net Working Capital  603
18.2 The Operating Cycle and the Cash Cycle  604

Defining the Operating and Cash Cycles  605
The Operating Cycle  605
The Cash Cycle  605

The Operating Cycle and the Firm’s Organization Chart  607
Calculating the Operating and Cash Cycles  608
The Operating Cycle  608
The Cash Cycle  609

Interpreting the Cash Cycle  610

18.3 Some Aspects of Short-Term Financial Policy  611

The Size of the Firm’s Investment in Current Assets  611
Alternative Financing Policies for Current Assets  612
An Ideal Case  612
Different Policies for Financing Current Assets  614
Which Financing Policy Is Best?  616

Current Assets and Liabilities in Practice  617

18.4 The Cash Budget  617
Sales and Cash Collections  617
Cash Outflows  618
The Cash Balance  619

18.5 Short-Term Borrowing  619
Unsecured Loans  620
Compensating Balances  620
Cost of a Compensating Balance  620
Letters of Credit  621
Secured Loans  621
Accounts Receivable Financing  621
Inventory Loans  622
Commercial Paper  622
Trade Credit  622
Understanding Trade Credit Terms  622
Cash Discounts  623

18.6 A Short-Term Financial Plan  624

Summary and Conclusions  625

Closing Case: Keafer Manufacturing Working Capital Management  633

CHAPTER NINETEEN
Raising Capital  635

19.1 The Financing Life Cycle of a Firm: Early-Stage Financing and Venture Capital  636
Venture Capital  636
Some Venture Capital Realities  637
Choosing a Venture Capitalist  637
Conclusion  637

19.2 Selling Securities to the Public: The Basic Procedure  637

19.3 Alternative Issue Methods  640

19.4 Underwriters  641
Choosing an Underwriter  641
Types of Underwriting  641
Firm Commitment Underwriting  641
Best Efforts Underwriting  641
Dutch Auction Underwriting  642
The Green Shoe Provision  642
The Aftermarket  643
Lockup Agreements  643
The Quiet Period  643

19.5 IPOs and Underpricing  643
Evidence on Underpricing  644
IPO Underpricing: The 1999–2000 Experience  645
Why Does Underpricing Exist?  648

19.6 What CFOs Say about the IPO Process  650

19.7 CEOs and the Value of the Firm  651

19.8 The Cost of Issuing Securities  652

19.9 Rights  656
The Mechanics of a Rights Offering  656
Subscription Price  657
Number of Rights Needed to Purchase a Share  657
Effect of Rights Offering on Price of Stock  657
Effects on Shareholders  659
The Underwriting Arrangements  659
The Rights Puzzle  660

19.10 Dilution  660
Dilution of Proportionate Ownership  660
CHAPTER TWENTY
International Corporate Finance 670

20.1 Terminology 671

20.2 Foreign Exchange Markets and Exchange Rates 672

   Exchange Rates 673
   Exchange Rate Quotations 673
   Cross-Rates and Triangle Arbitrage 675
   Types of Transactions 676

20.3 Purchasing Power Parity 677

   Absolute Purchasing Power Parity 677
   Relative Purchasing Power Parity 679
      The Basic Idea 679
      The Result 679
   Currency Appreciation and Depreciation 681

20.4 Interest Rate Parity, Unbiased Forward Rates, and the International Fisher Effect 681

   Covered Interest Arbitrage 681
   Interest Rate Parity 682
   Forward Rates and Future Spot Rates 683
      Putting It All Together 684
      Uncovered Interest Parity 684
      The International Fisher Effect 684

20.5 International Capital Budgeting 685

   Method 1: The Home Currency Approach 686
   Method 2: The Foreign Currency Approach 686
   Unremitted Cash Flows 687

20.6 Exchange Rate Risk 687

   Short-Run Exposure 687
   Long-Run Exposure 688
   Translation Exposure 689
   Managing Exchange Rate Risk 690

20.7 Political Risk 690

Summary and Conclusions 691

Closing Case: East Coast Yachts Goes International 696

CHAPTER TWENTY-ONE
Mergers and Acquisitions 697

21.1 The Legal Forms of Acquisitions 698

   Merger or Consolidation 698
   Acquisition of Stock 698
   Acquisition of Assets 699
   Acquisition Classifications 699
   A Note on Takeovers 700
   Alternatives to Merger 700

21.2 Taxes and Acquisitions 701

21.3 Accounting for Acquisitions 701

   The Purchase Method 701
   Pooling of Interests 702
   More on Goodwill 703

21.4 Gains from Acquisition 703

   Synergy 703
   Revenue Enhancement 704
   Marketing Gains 704
   Strategic Benefits 704
   Market Power 705
   Cost Reductions 705
   Economies of Scale 705
   Economies of Vertical Integration 706
   Complementary Resources 706
   Lower Taxes 706
   Net Operating Losses 706
   Unused Debt Capacity 706
   Surplus Funds 706
   Reductions in Capital Needs 707
   Avoiding Mistakes 707
   A Note on Inefficient Management 708

21.5 Some Financial Side Effects of Acquisitions 708

   EPS Growth 708
   Diversification 709

21.6 The Cost of an Acquisition 710
Case I: Cash Acquisition 710
Case II: Stock Acquisition 711
Cash versus Common Stock 711

21.7 Defensive Tactics 712
The Corporate Charter 712
Repurchase and Standstill Agreements 712
Poison Pills and Share Rights Plans 712
Going Private and Leveraged Buyouts 714
Other Devices and Jargon of Corporate Takeovers 714

21.9 Divestitures and Restructurings 716
Summary and Conclusions 716
Closing Case: The East Coast Yachts–West Coast Sailboats Merger 723

APPENDIX A
Mathematical Tables 725

APPENDIX B
Using the HP 10B and TI BA II Plus Financial Calculators 734

NAME INDEX 739
COMPANY INDEX 741
SUBJECT INDEX 743