# **Brief Contents**

PART 1	Overview of Corporate Finance
CHAPTER 1	INTRODUCTION TO CORPORATE FINANCE 1
CHAPTER 2	FINANCIAL STATEMENTS, TAXES, AND CASH FLOW 21
PART 2	Financial Statements and Long-Term Financial Planning
CHAPTER 3	WORKING WITH FINANCIAL STATEMENTS 48
CHAPTER 4	LONG-TERM FINANCIAL PLANNING AND GROWTH 89
PART 3	Valuation of Future Cash Flows
CHAPTER 5	INTRODUCTION TO VALUATION: THE TIME VALUE OF MONEY 121
CHAPTER 6	DISCOUNTED CASH FLOW VALUATION 146
CHAPTER 7	INTEREST RATES AND BOND VALUATION 192
CHAPTER 8	STOCK VALUATION 234
PART 4	Capital Budgeting
CHAPTER 9	NET PRESENT VALUE AND OTHER INVESTMENT CRITERIA 264
<b>CHAPTER 10</b>	MAKING CAPITAL INVESTMENT DECISIONS 302
CHAPTER 11	PROJECT ANALYSIS AND EVALUATION 337
PART 5	Risk and Return
PART 5  CHAPTER 12	SOME LESSONS FROM CAPITAL MARKET HISTORY 368
CHAPTER 12	SOME LESSONS FROM CAPITAL MARKET HISTORY 368
CHAPTER 12 CHAPTER 13	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403
CHAPTER 12 CHAPTER 13 CHAPTER 14	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439
CHAPTER 12 CHAPTER 13 CHAPTER 14 PART 6	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439  Cost of Capital and Long-Term Financial Policy
CHAPTER 12 CHAPTER 13 CHAPTER 14 PART 6 CHAPTER 15	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439  Cost of Capital and Long-Term Financial Policy COST OF CAPITAL 479
CHAPTER 12 CHAPTER 13 CHAPTER 14  PART 6 CHAPTER 15 CHAPTER 16	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439  Cost of Capital and Long-Term Financial Policy  COST OF CAPITAL 479 RAISING CAPITAL 513
CHAPTER 12 CHAPTER 13 CHAPTER 14  PART 6 CHAPTER 15 CHAPTER 16 CHAPTER 17	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439  Cost of Capital and Long-Term Financial Policy  COST OF CAPITAL 479 RAISING CAPITAL 513 FINANCIAL LEVERAGE AND CAPITAL STRUCTURE POLICY 551
CHAPTER 12 CHAPTER 13 CHAPTER 14  PART 6 CHAPTER 15 CHAPTER 16 CHAPTER 17 CHAPTER 18	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439  Cost of Capital and Long-Term Financial Policy  COST OF CAPITAL 479 RAISING CAPITAL 513 FINANCIAL LEVERAGE AND CAPITAL STRUCTURE POLICY 551 DIVIDENDS AND DIVIDEND POLICY 590
CHAPTER 12 CHAPTER 13 CHAPTER 14  PART 6 CHAPTER 15 CHAPTER 16 CHAPTER 17 CHAPTER 18  PART 7 CHAPTER 19 CHAPTER 20	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439  Cost of Capital and Long-Term Financial Policy  COST OF CAPITAL 479 RAISING CAPITAL 513 FINANCIAL LEVERAGE AND CAPITAL STRUCTURE POLICY 551 DIVIDENDS AND DIVIDEND POLICY 590  Short-Term Financial Planning and Management  SHORT-TERM FINANCE AND PLANNING 624 CASH AND LIQUIDITY MANAGEMENT 657
CHAPTER 12 CHAPTER 13 CHAPTER 14  PART 6 CHAPTER 15 CHAPTER 16 CHAPTER 17 CHAPTER 18  PART 7 CHAPTER 19	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439  Cost of Capital and Long-Term Financial Policy  COST OF CAPITAL 479 RAISING CAPITAL 513 FINANCIAL LEVERAGE AND CAPITAL STRUCTURE POLICY 551 DIVIDENDS AND DIVIDEND POLICY 590  Short-Term Financial Planning and Management  SHORT-TERM FINANCE AND PLANNING 624
CHAPTER 12 CHAPTER 13 CHAPTER 14  PART 6 CHAPTER 15 CHAPTER 16 CHAPTER 17 CHAPTER 18  PART 7 CHAPTER 19 CHAPTER 20	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439  Cost of Capital and Long-Term Financial Policy  COST OF CAPITAL 479 RAISING CAPITAL 513 FINANCIAL LEVERAGE AND CAPITAL STRUCTURE POLICY 551 DIVIDENDS AND DIVIDEND POLICY 590  Short-Term Financial Planning and Management  SHORT-TERM FINANCE AND PLANNING 624 CASH AND LIQUIDITY MANAGEMENT 657
CHAPTER 12 CHAPTER 13 CHAPTER 14  PART 6 CHAPTER 15 CHAPTER 16 CHAPTER 17 CHAPTER 18  PART 7 CHAPTER 19 CHAPTER 20 CHAPTER 21	SOME LESSONS FROM CAPITAL MARKET HISTORY 368 RETURN, RISK, AND THE SECURITY MARKET LINE 403 OPTIONS AND CORPORATE FINANCE 439  Cost of Capital and Long-Term Financial Policy  COST OF CAPITAL 479 RAISING CAPITAL 513 FINANCIAL LEVERAGE AND CAPITAL STRUCTURE POLICY 551 DIVIDENDS AND DIVIDEND POLICY 590  Short-Term Financial Planning and Management  SHORT-TERM FINANCE AND PLANNING 624 CASH AND LIQUIDITY MANAGEMENT 657 CREDIT AND INVENTORY MANAGEMENT 689



xxvi



## Contents

### PART 1 Overview of Corporate Finance

		A	דמ	п	•
·	п	А		ıĸ	ш

#### INTRODUCTION TO CORPORATE FINANCE 1

1.1 Corporate Finance and the Financial Manager 2

What Is Corporate Finance? 2

The Financial Manager 2

Financial Management Decisions 2

Capital Budgeting 2

Capital Structure 3

Working Capital Management 4

Conclusion 4

1.2 Forms of Business Organization 4

Sole Proprietorship 5

Partnership 5

Corporation 6

A Corporation by Another Name . . . 7

1.3 The Goal of Financial Management 8

Possible Goals 8

The Goal of Financial Management 8

A More General Goal 9

Sarbanes-Oxley 10

1.4 The Agency Problem and Control of the Corporation 11

Agency Relationships 11

Management Goals 11

Do Managers Act in the Stockholders' Interests? 12

Managerial Compensation 12

Control of the Firm 12

Conclusion 13

Stakeholders 14

#### 1.5 Financial Markets and the Corporation 14

Cash Flows to and from the Firm 14

Primary versus Secondary Markets 14

Primary Markets 15

Secondary Markets 15

Dealer versus Auction Markets 15

Trading in Corporate Securities 16

Listing 16

1.6 Summary and Conclusions 17

#### **CHAPTER 2**

#### FINANCIAL STATEMENTS, TAXES, AND CASH FLOW 21

2.1 The Balance Sheet 22

Assets: The Left Side 22

Liabilities and Owners' Equity: The Right Side 22

Net Working Capital 23

Liquidity 24

Debt versus Equity 25

Market Value versus Book Value 25

2.2 The Income Statement 26

GAAP and the Income Statement 27

Noncash Items 28

Time and Costs 28

2.3 Taxes 30

Corporate Tax Rates 30

Average versus Marginal Tax Rates 30

2.4 Cash Flow 32

Cash Flow from Assets 33

Operating Cash Flow 33

Capital Spending 34

Change in Net Working Capital 34

Conclusion 35

A Note about "Free" Cash Flow 35

Cash Flow to Creditors and Stockholders 35

Cash Flow to Creditors 35

Cash Flow to Stockholders 35

An Example: Cash Flows for Dole Cola 37

Operating Cash Flow 37

Net Capital Spending 38

Change in NWC and Cash Flow from Assets 38

Cash Flow to Stockholders and Creditors 38

2.5 Summary and Conclusions 39

#### PART 2 Financial Statements and Long-Term Financial Planning

#### **CHAPTER 3**

#### WORKING WITH FINANCIAL STATEMENTS 48

3.1 Cash Flow and Financial Statements: A Closer Look 49

Sources and Uses of Cash 49
The Statement of Cash Flows 51

#### 3.2 Standardized Financial Statements 53

Common-Size Statements 53

Common-Size Balance Sheets 53

Common-Size Income Statements 54

Common-Size Statements of Cash Flows 55

Common-Base Year Financial Statements: Trend Analysis 55

xxvii

 $\bigoplus$ 

Combined Common-Size and Base Year

Analysis 55

3.3	Ratio Analysis 56
	Short-Term Solvency, or Liquidity, Measures 57
	Current Ratio 57
	The Quick (or Acid-Test) Ratio 58
	Other Liquidity Ratios 59
	Long-Term Solvency Measures 59
	Total Debt Ratio 59
	A Brief Digression: Total Capitalization versus Total Assets 60
	Times Interest Earned 60
	Cash Coverage 61
	Asset Management, or Turnover, Measures 61
	Inventory Turnover and Days' Sales in Inventory 61
	Receivables Turnover and Days' Sales in Receivables 62
	Asset Turnover Ratios 63
	Profitability Measures 63
	Profit Margin 64
	Return on Assets 64
	Return on Equity 64
	Market Value Measures 65
	Price-Earnings Ratio 65
	Price-Sales Ratio 65
	Market-to-Book Ratio 66
	Conclusion 66
3.4	The Du Pont Identity 67
	A Closer Look at ROE 67
	An Expanded Du Pont Analysis 69
3.5	Using Financial Statement Information 71
	Why Evaluate Financial Statements? 71
	Internal Uses 71
	External Uses 71
	Choosing a Benchmark 71
	Time Trend Analysis 71
	Peer Group Analysis 72
	Problems with Financial Statement Analysis 76
3.6	Summary and Conclusions 77
	-

#### **CHAPTER 4**

## LONG-TERM FINANCIAL PLANNING AND GROWTH 89

What Is Financial Planning? 90
Growth as a Financial Management Goal 90
Dimensions of Financial Planning 91
What Can Planning Accomplish? 92
Examining Interactions 92
Exploring Options 92
Avoiding Surprises 92
Ensuring Feasibility and Internal Consistency 92
Conclusion 92

#### 4.2 Financial Planning Models: A First Look 93

A Financial Planning Model: The Ingredients 93
Sales Forecast 93
Pro Forma Statements 93
Asset Requirements 94
Financial Requirements 94
The Plug 94
Economic Assumptions 94

A Simple Financial Planning Model 94

#### 4.3 The Percentage of Sales Approach 96

The Income Statement 96
The Balance Sheet 97
A Particular Scenario 99
An Alternative Scenario 100

#### 4.4 External Financing and Growth 101

EFN and Growth 101
Financial Policy and Growth 105
The Internal Growth Rate 105
The Sustainable Growth Rate 105
Determinants of Growth 107
A Note about Sustainable Growth Rate
Calculations 108

4.5 Some Caveats Regarding Financial Planning Models 110

4.6 Summary and Conclusions 111

#### PART 3 Valuation of Future Cash Flows

#### **CHAPTER 5**

INTRODUCTION TO VALUATION: THE TIME VALUE OF MONEY 121

5.1 Future Value and Compounding 122
Investing for a Single Period 122
Investing for More Than One Period 122
A Note about Compound Growth 128

#### 5.2 Present Value and Discounting 129

The Single-Period Case 129
Present Values for Multiple Periods 130

#### 5.3 More about Present and Future Values 133

Present versus Future Value 133

Determining the Discount Rate 134

Finding the Number of Periods 138

5.4 Summary and Conclusions 141





#### **CHAPTER 6**

#### DISCOUNTED CASH FLOW VALUATION 146

### 6.1 Future and Present Values of Multiple Cash Flows 147

Future Value with Multiple Cash Flows 147
Present Value with Multiple Cash Flows 150
A Note about Cash Flow Timing 153

## 6.2 Valuing Level Cash Flows: Annuities and Perpetuities 154

Present Value for Annuity Cash Flows 154
Annuity Tables 156
Finding the Payment 157
Finding the Rate 159
Future Value for Annuities 161

A Note about Annuities Due 162
Perpetuities 162

Growing Annuities and Perpetuities 164

## **6.3** Comparing Rates: The Effect of Compounding 165 Effective Annual Rates and Compounding 165

Calculating and Comparing Effective Annual Rates 166
EARs and APRs 168
Taking It to the Limit: A Note about Continuous

Taking It to the Limit: A Note about Continuou Compounding 169

### 6.4 Loan Types and Loan Amortization 171

Pure Discount Loans 171 Interest-Only Loans 171 Amortized Loans 172

6.5 Summary and Conclusions 177

#### **CHAPTER 7**

### INTEREST RATES AND BOND VALUATION 192

#### 7.1 Bonds and Bond Valuation 193

Bond Features and Prices 193
Bond Values and Yields 193
Interest Rate Risk 197

Finding the Yield to Maturity: More Trial and Error 198

#### 7.2 More about Bond Features 203

Is It Debt or Equity? 203
Long-Term Debt: The Basics 203
The Indenture 205
Terms of a Bond 205
Security 206

Security 206
Seniority 206
Repayment 206
The Call Provision 207
Protective Covenants 207

#### 7.3 Bond Ratings 208

### 7.4 Some Different Types of Bonds 209

Government Bonds 209

Zero-Coupon Bonds 210 Floating-Rate Bonds 211 Other Types of Bonds 212

#### 7.5 Bond Markets 214

How Bonds Are Bought and Sold 214
Bond Price Reporting 216
A Note about Bond Price Quotes 219

#### 7.6 Inflation and Interest Rates 219

Real versus Nominal Rates 219
The Fisher Effect 220
Inflation and Present Values 221

#### 7.7 Determinants of Bond Yields 222

The Term Structure of Interest Rates 222
Bond Yields and the Yield Curve: Putting It All Together 225
Conclusion 226

7.8 Summary and Conclusions 227

#### **CHAPTER 8**

#### STOCK VALUATION 234

#### 8.1 Common Stock Valuation 235

Cash Flows 235
Some Special Cases 237
Zero Growth 237
Constant Growth 237
Nonconstant Growth 240
Two-Stage Growth 242

Components of the Required Return 243

#### 8.2 Some Features of Common and Preferred Stocks 245

Common Stock Features 245
Shareholder Rights 245
Proxy Voting 246
Classes of Stock 247
Other Rights 247
Dividends 248

#### Preferred Stock Features 248

Stated Value 248

Cumulative and Noncumulative Dividends

Cumulative and Noncumulative Dividends 248
Is Preferred Stock Really Debt? 249

#### 8.3 The Stock Markets 249

Dealers and Brokers 250
Organization of the NYSE 250
Members 250
Operations 251
Floor Activity 251
NASDAQ Operations 252

NASDAQ Participants 253
Stock Market Reporting 254

8.4 Summary and Conclusions 256



## **CHAPTER 9**

#### NET PRESENT VALUE AND OTHER INVESTMENT CRITERIA 264

#### Net Present Value 265

The Basic Idea 265

PART 4 Capital Budgeting

Estimating Net Present Value 266

#### The Payback Rule 269 9.2

Defining the Rule 269

Analyzing the Rule 270

Redeeming Qualities of the Rule 271

Summary of the Rule 272

#### 9.3 The Discounted Payback 272

#### 9.4 The Average Accounting Return 275

#### The Internal Rate of Return 277 9.5

Problems with the IRR 281

Nonconventional Cash Flows 281

Mutually Exclusive Investments 283

Redeeming Qualities of the IRR 285

#### The Modified Internal Rate of Return (MIRR) 286

Method #1: The Discounting Approach 286

Method #2: The Reinvestment Approach 286

Method #3: The Combination Approach 286 MIRR or IRR: Which Is Better? 287

#### The Profitability Index 287 9.6

#### The Practice of Capital Budgeting 288 9.7

Summary and Conclusions 291

#### **CHAPTER 10**

#### MAKING CAPITAL INVESTMENT DECISIONS 302

#### 10.1 Project Cash Flows: A First Look 303

Relevant Cash Flows 303

The Stand-Alone Principle 303

#### 10.2 Incremental Cash Flows 303

Sunk Costs 304

Opportunity Costs 304

Side Effects 304

Net Working Capital 305

Financing Costs 305

Other Issues 305

#### 10.3 Pro Forma Financial Statements and Project Cash Flows 306

Getting Started: Pro Forma Financial Statements 306

Project Cash Flows 307

Project Operating Cash Flow 307

Project Net Working Capital and Capital

Spending 308

Projected Total Cash Flow and Value 308

#### 10.4 More about Project Cash Flow 309

A Closer Look at Net Working Capital 309

Depreciation 312

Modified ACRS Depreciation (MACRS) 312

Book Value versus Market Value 313

An Example: The Majestic Mulch and Compost

Company (MMCC) 315

Operating Cash Flows 315

Change in NWC 315

Capital Spending 317

Total Cash Flow and Value 317

Conclusion 318

### 10.5 Alternative Definitions of Operating

Cash Flow 318

The Bottom-Up Approach 319

The Top-Down Approach 320

The Tax Shield Approach 320

Conclusion 321

#### 10.6 Some Special Cases of Discounted Cash Flow Analysis 321

Evaluating Cost-Cutting Proposals 321

Setting the Bid Price 323

**Evaluating Equipment Options with** 

Different Lives 325

#### 10.7 Summary and Conclusions 327

#### **CHAPTER 11**

#### PROJECT ANALYSIS AND EVALUATION 337

#### 11.1 Evaluating NPV Estimates 338

The Basic Problem 338

Projected versus Actual Cash Flows 338

Forecasting Risk 338

Sources of Value 339

#### 11.2 Scenario and Other What-If Analyses 340

Getting Started 340

Scenario Analysis 341

Sensitivity Analysis 343

Simulation Analysis 344

#### 11.3 Break-Even Analysis 344

Fixed and Variable Costs 345

Variable Costs 345

Fixed Costs 346

Total Costs 346

Accounting Break-Even 348

Accounting Break-Even: A Closer Look 348

Uses for the Accounting Break-Even 350





 $\bigoplus$ 

#### 11.4 Operating Cash Flow, Sales Volume, and Break-Even 350

Accounting Break-Even and Cash Flow 351

The Base Case 351

Calculating the Break-Even Level 351

Payback and Break-Even 352

Sales Volume and Operating Cash Flow 352

Cash Flow, Accounting, and Financial Break-Even Points  $\ 352$ 

Accounting Break-Even Revisited 353

Cash Break-Even 353

Financial Break-Even 354

Conclusion 354

#### 11.5 Operating Leverage 355

The Basic Idea 355

Implications of Operating Leverage 356
Measuring Operating Leverage 356

Operating Leverage and Break-Even 357

#### 11.6 Capital Rationing 358

Soft Rationing 358

Hard Rationing 359

11.7 Summary and Conclusions 359

#### PART 5 Risk and Return

#### **CHAPTER 12**

## SOME LESSONS FROM CAPITAL MARKET HISTORY 368

#### 12.1 Returns 369

Dollar Returns 369

Percentage Returns 371

#### 12.2 The Historical Record 373

A First Look 373

A Closer Look 375

#### 12.3 Average Returns: The First Lesson 379

Calculating Average Returns 379

Average Returns: The Historical Record 379

Risk Premiums 380

The First Lesson 380

### 12.4 The Variability of Returns: The Second Lesson 381

Frequency Distributions and Variability 381

The Historical Variance and Standard

Deviation 382

The Historical Record 384

Normal Distribution 384

The Second Lesson 386

Using Capital Market History 386

#### 12.5 More about Average Returns 387

Arithmetic versus Geometric Averages 387

Calculating Geometric Average

Returns 388

Arithmetic Average Return or Geometric Average Return? 390

#### 12.6 Capital Market Efficiency 391

Price Behavior in an Efficient Market 391

The Efficient Markets Hypothesis 392

Some Common Misconceptions about the

EMH 393

The Forms of Market Efficiency 395

#### 12.7 Summary and Conclusions 396

#### **CHAPTER 13**

## RETURN, RISK, AND THE SECURITY MARKET LINE 403

#### 13.1 Expected Returns and Variances 404

Expected Return 404

Calculating the Variance 406

#### 13.2 Portfolios 407

Portfolio Weights 408

Portfolio Expected Returns 408

Portfolio Variance 409

## 13.3 Announcements, Surprises, and Expected Returns 411

Expected and Unexpected Returns 411

Announcements and News 411

#### 13.4 Risk: Systematic and Unsystematic 413

Systematic and Unsystematic Risk 413

Systematic and Unsystematic Components of Return 413

#### 13.5 Diversification and Portfolio Risk 414

The Effect of Diversification: Another Lesson from

Market History 414

The Principle of Diversification 415

Diversification and Unsystematic Risk 416

Diversification and Systematic Risk 417

#### 13.6 Systematic Risk and Beta 417

The Systematic Risk Principle 418

Measuring Systematic Risk 418

Portfolio Betas 420

#### 13.7 The Security Market Line 421

Beta and the Risk Premium 421

The Reward-to-Risk Ratio 422

The Basic Argument 423

The Fundamental Result 424

The Security Market Line 426

Market Portfolios 426

The Capital Asset Pricing Model 426



#### 13.8 The SML and the Cost of Capital: A Preview 428

The Basic Idea 428
The Cost of Capital 429

13.9 Summary and Conclusions 429

#### **CHAPTER 14**

#### OPTIONS AND CORPORATE FINANCE 439

#### 14.1 Options: The Basics 440

Puts and Calls 440 Stock Option Quotations 440 Option Payoffs 444

#### 14.2 Fundamentals of Option Valuation 446

Value of a Call Option at Expiration 446
The Upper and Lower Bounds on a Call Option's Value 446

The Upper Bound 447
The Lower Bound 447
A Simple Model: Part I 448
The Basic Approach 448

A More Complicated Case 449
Four Factors Determining Option
Values 450

#### 14.3 Valuing a Call Option 451

A Simple Model: Part II 451 The Fifth Factor 452 A Closer Look 453 14.4 Employee Stock Options 454

ESO Features 454 ESO Repricing 455 ESO Backdating 455

#### 14.5 Equity as a Call Option on the Firm's Assets 456

Case I: The Debt Is Risk-Free 457 Case II: The Debt Is Risky 457

#### 14.6 Options and Capital Budgeting 459

The Investment Timing Decision 459

Managerial Options 461
Contingency Planning 462

Options in Capital Budgeting: An Example 463

Strategic Options 464

#### 14.7 Options and Corporate Securities 465

Warrants 465

Conclusion 464

The Difference between Warrants and Call Options 465

Earnings Dilution 466
Convertible Bonds 466

Features of a Convertible Bond 466

Value of a Convertible Bond 466

Other Options 468

The Call Provision on a Bond 468

Put Bonds 469

Insurance and Loan Guarantees 469

#### 14.8 Summary and Conclusions 470

### PART 6 Cost of Capital and Long-Term Financial Policy

### **CHAPTER 15**

#### COST OF CAPITAL 479

#### 15.1 The Cost of Capital: Some Preliminaries 480

Required Return versus Cost of Capital 480 Financial Policy and Cost of Capital 480

#### 15.2 The Cost of Equity 481

The Dividend Growth Model Approach 481

Implementing the Approach 481

Estimating g 482

Advantages and Disadvantages of the Approach 483

The SML Approach 483

Implementing the Approach 484

Advantages and Disadvantages of the Approach 484

### 15.3 The Costs of Debt and Preferred Stock 485

The Cost of Debt 485

The Cost of Preferred Stock 486

#### 15.4 The Weighted Average Cost of Capital 487

The Capital Structure Weights 487

Taxes and the Weighted Average Cost of Capital 488 Calculating the WACC for Eastman Chemical 489

Eastman's Cost of Equity 489
Eastman's Cost of Debt 491

Eastman's WACC 492

Solving the Warehouse Problem and Similar Capital Budgeting Problems 494

Performance Evaluation: Another Use of the WACC 496

#### 15.5 Divisional and Project Costs of Capital 497

The SML and the WACC 497
Divisional Cost of Capital 498

The Pure Play Approach 498

The Subjective Approach 499

#### 15.6 Flotation Costs and the Weighted Average Cost of Capital 501

The Basic Approach 501 Flotation Costs and NPV 502

Internal Equity and Flotation Costs 504

#### 15.7 Summary and Conclusions 504



#### **CHAPTER 16**

RAISING CAPITAL 513

16.1 The Financing Life Cycle of a Firm: Early-Stage Financing and Venture Capital 514

Venture Capital 514
Some Venture Capital Realities 515
Choosing a Venture Capitalist 515
Conclusion 516

- 16.2 Selling Securities to the Public: The Basic Procedure 516
- 16.3 Alternative Issue Methods 517

Choosing an Underwriter 520

16.4 Underwriters 519

Types of Underwriting 520
Firm Commitment Underwriting 520
Best Efforts Underwriting 520

Dutch Auction Underwriting 521

The Aftermarket 521
The Green Shoe Provision 522
Lockup Agreements 522
The Quiet Period 522

16.5 IPOs and Underpricing 523

IPO Underpricing: The 1999–2000 Experience 523
Evidence on Underpricing 525
Why Does Underpricing Exist? 526

16.6 New Equity Sales and the Value of the Firm 529

The Costs of Issuing Securities 530
 The Costs of Selling Stock to the Public 530
 The Costs of Going Public: The Case of Symbion 532

16.8 Rights 534

The Mechanics of a Rights Offering 534

Number of Rights Needed to Purchase a Share 535

The Value of a Right 536

Ex Rights 538

The Underwriting Arrangements 539

16.9 Dilution 540

Dilution of Proportionate Ownership 540
Dilution of Value: Book versus Market Values 540
A Misconception 541
The Correct Arguments 542

16.10 Issuing Long-Term Debt 542

16.11 Shelf Registration 543

16.12 Summary and Conclusions 544

Effects on Shareholders 539

#### **CHAPTER 17**

FINANCIAL LEVERAGE AND CAPITAL STRUCTURE POLICY 551

17.1 The Capital Structure Question 552

Firm Value and Stock Value: An Example 552
Capital Structure and the Cost of Capital 553

17.2 The Effect of Financial Leverage 553

The Basics of Financial Leverage 553
Financial Leverage, EPS, and ROE: An Example 554
EPS versus EBIT 555

Corporate Borrowing and Homemade Leverage 556

17.3 Capital Structure and the Cost of Equity Capital 558

M&M Proposition I: The Pie Model 558
The Cost of Equity and Financial Leverage: M&M Proposition II 559
Business and Financial Risk 561

17.4 M&M Propositions I and II with Corporate Taxes 562

The Interest Tax Shield 563

Taxes and M&M Proposition I 563

Taxes, the WACC, and Proposition II 564

Conclusion 565

17.5 Bankruptcy Costs 567

Direct Bankruptcy Costs 568
Indirect Bankruptcy Costs 568

17.6 Optimal Capital Structure 569

The Static Theory of Capital Structure 569
Optimal Capital Structure and the Cost of Capital 570
Optimal Capital Structure: A Recap 571
Capital Structure: Some Managerial
Recommendations 573

Taxes 573
Financial Distress 573

17.7 The Pie Again 573

The Extended Pie Model 574

Marketed Claims versus Nonmarketed Claims 575

17.8 The Pecking-Order Theory 575
Internal Financing and the Pecking Order 575
Implications of the Pecking Order 576

17.9 Observed Capital Structures 577

17.10 A Quick Look at the Bankruptcy Process 579

Liquidation and Reorganization 579

Bankruptcy Liquidation 579

Bankruptcy Reorganization 580

Financial Management and the Bankruptcy Process 581

Agreements to Avoid Bankruptcy 582

17.11 Summary and Conclusions 582

#### **CHAPTER 18**

DIVIDENDS AND DIVIDEND POLICY 590

**18.1 Cash Dividends and Dividend Payment 591** Cash Dividends *591* 





Standard Method of Cash Dividend Payment 592 Dividend Payment: A Chronology 592 More about the Ex-Dividend Date 593

#### 18.2 Does Dividend Policy Matter? 594

An Illustration of the Irrelevance of Dividend Policy 595 Current Policy: Dividends Set Equal to Cash Flow 595 Alternative Policy: Initial Dividend Greater Than Cash Flow 595

Homemade Dividends 596

A Test 596

#### 18.3 Real-World Factors Favoring a Low Payout 597

Taxes 597

Expected Return, Dividends, and Personal Taxes 598 Flotation Costs 599

Dividend Restrictions 599

#### 18.4 Real-World Factors Favoring a High Payout 599

Desire for Current Income 600 Uncertainty Resolution 600 Tax and Legal Benefits from High Dividends 601

Corporate Investors 601 Tax-Exempt Investors 601

Conclusion 601

#### 18.5 A Resolution of Real-World Factors? 602

Information Content of Dividends 602

The Clientele Effect 603

#### 18.6 Establishing a Dividend Policy 604

Residual Dividend Approach 604

Dividend Stability 606

A Compromise Dividend Policy 607

Some Survey Evidence on Dividends 608

#### 18.7 Stock Repurchase: An Alternative to Cash Dividends 609

Cash Dividends versus Repurchase 610 Real-World Considerations in a Repurchase 611 Share Repurchase and EPS 612

#### 18.8 Stock Dividends and Stock Splits 612

Some Details about Stock Splits and Stock Dividends 613

Example of a Small Stock Dividend 613

Example of a Stock Split 613

Example of a Large Stock Dividend 614

Value of Stock Splits and Stock Dividends 614

The Benchmark Case 614 Popular Trading Range 614

Reverse Splits 615

18.9 Summary and Conclusions 616

#### PART 7 **Short-Term Financial Planning and Management**

#### **CHAPTER 19**

#### SHORT-TERM FINANCE AND PLANNING 624

### 19.1 Tracing Cash and Net Working Capital 625

#### 19.2 The Operating Cycle and the Cash Cycle 626

Defining the Operating and Cash Cycles 627

The Operating Cycle 627

The Cash Cycle 627

The Operating Cycle and the Firm's Organizational Chart 629

Calculating the Operating and Cash Cycles 629

The Operating Cycle 630

The Cash Cycle 631

Interpreting the Cash Cycle 632

#### 19.3 Some Aspects of Short-Term Financial Policy 632

The Size of the Firm's Investment in Current Assets 633

Alternative Financing Policies for Current Assets 634

An Ideal Case 634

Different Policies for Financing Current Assets 634

Which Financing Policy Is Best? 637

Current Assets and Liabilities in Practice 638

### 19.4 The Cash Budget 639

Sales and Cash Collections 639

Cash Outflows 640

The Cash Balance 640

#### 19.5 Short-Term Borrowing 641

Unsecured Loans 642

Compensating Balances 642

Cost of a Compensating Balance 642

Letters of Credit 643

Secured Loans 643

Accounts Receivable Financing 643

Inventory Loans 644

Other Sources 644

19.6 A Short-Term Financial Plan 645

19.7 Summary and Conclusions 646

#### **CHAPTER 20**

#### CASH AND LIQUIDITY MANAGEMENT 657

#### 20.1 Reasons for Holding Cash 658

The Speculative and Precautionary Motives 658 The Transaction Motive 658







**(** 

	0 11 D 1 050		
	Compensating Balances 658	CHAPTER 21	
	Costs of Holding Cash 658	CREDIT AND INVENTORY MANAGEMENT 68	
	Cash Management versus Liquidity Management 659	04.4	Overdit and Bassinshles COO
20.2	Understanding Float 659	21.1	***************************************
	Disbursement Float 659		Components of Credit Policy 690  The Cash Flows from Granting Credit 690
	Collection Float and Net Float 660		The Investment in Receivables 691
	Float Management 661	21.2	Terms of the Sale 691
	Measuring Float 661	21.2	The Basic Form 692
	Some Details 662		The Credit Period 692
	Cost of the Float 662		The Invoice Date 692
	Ethical and Legal Questions 664		Length of the Credit Period 692
	Electronic Data Interchange and Check 21: The End of		Cash Discounts 693
	Float? 665		Cost of the Credit 694
20.3	Cash Collection and Concentration 666		Trade Discounts 694
	Components of Collection Time 666		The Cash Discount and the ACP 694
	Cash Collection 666		Credit Instruments 695
	Lockboxes 666	21.3	Analyzing Credit Policy 695
	Cash Concentration 668	21.0	Credit Policy Effects 695
	Accelerating Collections: An Example 669		Evaluating a Proposed Credit Policy 696
20.4	Managing Cash Disbursements 670		NPV of Switching Policies 696
	Increasing Disbursement Float 670		A Break-Even Application 698
	Controlling Disbursements 671	21.4	Optimal Credit Policy 698
	Zero-Balance Accounts 671		The Total Credit Cost Curve 698
	Controlled Disbursement Accounts 672		Organizing the Credit Function 699
20.5	Investing Idle Cash 672	21.5	Credit Analysis 700
	Temporary Cash Surpluses 672		When Should Credit Be Granted? 700
	Seasonal or Cyclical Activities 672		A One-Time Sale 700
	Planned or Possible Expenditures 672		Repeat Business 701
	Characteristics of Short-Term Securities 673		Credit Information 702
	Maturity 673		Credit Evaluation and Scoring 702
	Default Risk 673	21.6	Collection Policy 703
	Marketability 673		Monitoring Receivables 703
	Taxes 673		Collection Effort 704
	Some Different Types of Money Market	21.7	Inventory Management 704
00.6	Securities 674		The Financial Manager and Inventory Policy 705
20.6 20A	Summary and Conclusions 675  Determining the Target Cash Balance 679		Inventory Types 705
ZUA	The Basic Idea 679		Inventory Costs 705
	The BAT Model 680	21.8	Inventory Management Techniques 706
	The Opportunity Costs 681		The ABC Approach 706
	The Trading Costs 682		The Economic Order Quantity Model 707
	The Total Cost 682		Inventory Depletion 707
	The Solution 683		The Carrying Costs 709
	Conclusion 684		The Shortage Costs 709
	The Miller–Orr Model: A More General		The Total Costs 709
	Approach 684		Extensions to the EOQ Model 711
	The Basic Idea 684		Safety Stocks 711
	Using the Model 684		Reorder Points 711
	Implications of the BAT and Miller–Orr Models 686		Managing Derived-Demand Inventories 711
	Other Factors Influencing the Target Cash		Materials Requirements Planning 713
	Balance 686		Just-in-Time Inventory 713



21.9	Summary and Conclusions 713	
21A	More about Credit Policy Analysis	71
	Tivo Altornativo Approaches 710	

Two Alternative Approaches 719
The One-Shot Approach 720

The Accounts Receivable Approach 720
Discounts and Default Risk 721
NPV of the Credit Decision 722
A Break-Even Application 723

#### PART 8 Topics in Corporate Finance

#### **CHAPTER 22**

#### INTERNATIONAL CORPORATE FINANCE 726

- 22.1 Terminology 727
- 22.2 Foreign Exchange Markets and Exchange Rates 728

Exchange Rates 729

Exchange Rate Quotations 729

Cross-Rates and Triangle Arbitrage 730

Types of Transactions 732

#### 22.3 Purchasing Power Parity 733

Absolute Purchasing Power Parity 733
Relative Purchasing Power Parity 735
The Basic Idea 735
The Result 735
Currency Appreciation and Depreciation 736

### 22.4 Interest Rate Parity, Unbiased Forward Rates, and the International Fisher Effect 737

Covered Interest Arbitrage 737
Interest Rate Parity 738
Forward Rates and Future Spot Rates 739
Putting It All Together 739
Uncovered Interest Parity 740
The International Fisher Effect 740

#### 22.5 International Capital Budgeting 741

Method 1: The Home Currency Approach 741 Method 2: The Foreign Currency Approach 742 Unremitted Cash Flows 743

#### 22.6 Exchange Rate Risk 743

Short-Run Exposure 743
Long-Run Exposure 744
Translation Exposure 745
Managing Exchange Rate Risk 746

- 22.7 Political Risk 746
- 22.8 Summary and Conclusions 747

#### **APPENDIX A**

MATHEMATICAL TABLES A-1

#### **APPENDIX B**

KEY EQUATIONS B-1

#### **APPENDIX C**

ANSWERS TO SELECTED END-OF-CHAPTER PROBLEMS C-1

Index I-1

