

Contents

Preface xiii
About the Author xxii

PART 1

Introduction to Financial Management

CHAPTER 1 Foundations 2

An Overview of Finance 2

Financial Assets 3
Financial Markets 4
Raising Money 5
Financial Management 5
The Price of Securities—A Link Between the Firm
and the Market 6

Finance and Accounting 7

The Importance of Cash Flow 8
The Language of Finance 9

Financial Theory—The Relationship with Economics 10

Forms of Business Organization and Their Financial Impact 10

The Proprietorship Form 11
The Corporate Form 12
The Truth About Limited Liability 14
Limited Liability Companies (LLCs) and S-Type
Corporations 14

INSIGHTS: Real Applications *Did the Pass-Through Concept Backfire? Are There Too Many Pass-Throughs, and Are Some Too Big?* 15

The Goals of Management 16

Stakeholders and Conflicts of Interest 16
Conflicts of Interest—An Illustration 17

Management—A Privileged Stakeholder Group 17

The Agency Problem 17

Creditors Versus Stockholders—A Financially Important Conflict of Interest 18

INSIGHTS: Ethics *Ethics and Ethical Investing* 19

Concept Connections 20

Securities Analysis and Thomson ONE—Business

School Edition 21

Questions 22
Business Analysis 23
Problems 23
Thomson ONE Business School Edition 24

CHAPTER 2 Financial Background: A Review of Accounting, Financial Statements, and Taxes 25

Accounting Systems and Financial Statements 26

The Nature of Financial Statements 26
The Accounting System 27

The Income Statement 29

Presentation 29

The Balance Sheet 31

Presentation 32
Assets 33
Liabilities 39
Equity 42

The Tax Environment 44

Taxing Authorities and Tax Bases 44
Income Taxes—The Total Effective Tax Rate 45
Progressive Tax Systems, Marginal and
Average Rates 45
Ordinary Income and Capital Gains/Losses 47

Income Tax Calculations 48

Personal Taxes 48

INSIGHTS: Real Applications *Why Are Municipal Bonds Tax Exempt? Can Investors Expect the Deal to Last?* 52

Corporate Taxes 53

INSIGHTS: Practical Finance *The Other Purpose of the Tax System* 55

Questions 58

Problems 58

Computer Problems 66

CHAPTER 3 Cash Flows and Financial Analysis 67

Financial Information—Where Does It Come From, Who Uses It, and What Are We Looking For? 68

Users of Financial Information 68
Sources of Financial Information 69
The Orientation of Financial Analysis 70

INSIGHTS: Real Applications *The Devil Is in the Details...* 72

The Statement of Cash Flows 73

How the Statement of Cash Flows
Works—Preliminary Illustrations 73

Business Cash Flows	77
Constructing the Statement of Cash Flows	78
Free Cash Flow	83
Calculating Free Cash Flow	83
Free Cash Flow to Equity (FCFE)	84
The Cash Conversion Cycle (Racetrack Diagram)	85
Ratio Analysis	87
Comparisons	87
Common Size Statements	88
Ratios	90
Liquidity Ratios	91
Asset Management Ratios	92
Debt Management Ratios	94
Profitability Ratios	97
Market Value Ratios	99
Du Pont Equations	102
INSIGHTS: Practical Finance	<i>Concepts in Financial Analysis: EVA[®] and MVA</i>
Using the Du Pont Equations	105
Sources of Comparative Information	105
Limitations and Weaknesses of Ratio Analysis	106
Questions	107
Business Analysis	107
Problems	108
Computer Problems	120
Developing Software	122
Thomson ONE Business School Edition	123
CHAPTER 4 Financial Planning	125
Business Planning	126
Component Parts of a Business Plan	126
The Purpose of Planning and Plan Information	127
Credibility and Supporting Detail	128
Four Kinds of Business Plans	129
The Financial Plan as a Component of a Business Plan	133
Making Financial Projections	133
Planning for New and Existing Businesses	133
The General Approach, Assumptions, and the Debt/Interest Problem	134
Plans with Simple Assumptions	140
Forecasting Cash Needs	142
The Percentage of Sales Method—A Formula Approach	143
The Sustainable Growth Rate	145
Plans with More Complicated Assumptions	147
A Comprehensive Example—A Complex Plan for an Existing Business	150
Planning at the Department Level	157
The Cash Budget	159
Management Issues in Financial Planning	162
The Financial Plan as a Set of Goals	162

Risk in Financial Planning in General	163
INSIGHTS: Ethics	<i>Judgment Calls and Ethics in Business Planning</i>
Financial Planning and Computers	166
Questions	167
Business Analysis	168
Problems	169

CHAPTER 5 The Financial System, Corporate Governance, and Interest 179

The Financial System	180
Cash Flows Between the Sectors	180
Savings and Investment	180
Financial Markets	182
The Stock Market and Stock Exchanges	185
Overview	185
Trading—The Role of Brokers	186
Exchanges	186
Private, Public, and Listed Companies, and the OTCBB	188
Stock Quotations	191
INSIGHTS: Practical Finance	<i>Efficient Financial Markets</i>
Corporate Governance	192
Executive Compensation	193
The Moral Hazard of Stock-Based Compensation	194
The Events of the 1990s	195
The Sarbanes-Oxley Act	196
Life After Sarbanes-Oxley	197
The Financial Crisis of 2008	197
INSIGHTS: Ethics	<i>Government Bailouts as Moral Hazards</i>
Interest	208
The Relationship Between Interest and the Stock Market	209
Interest and the Economy	210
Debt Markets	210
The Components of an Interest Rate	213
Components of the Base Rate	213
Risk Premiums	214
Putting the Pieces Together	216
Federal Government Securities, Risk-Free and Real Rates	217
Yield Curves—The Term Structure of Interest Rates	222
INSIGHTS: Practical Finance	<i>The Inverted Yield Curve—An Economic Predictor</i>
Questions	225
Business Analysis	226
Problems	227

PART 2**Discounted Cash Flow and the Value of Securities****CHAPTER 6 Time Value of Money 232****Outline of Approach 233****Amount Problems 235**

- The Future Value of an Amount 235
- Financial Calculators 239
- The Expression for the Present Value of an Amount 240

Annuity Problems 242

- Annuities 243
- The Future Value of an Annuity—Developing a Formula 244
- The Future Value of an Annuity—Solving Problems 247
- Compound Interest and Non-Annual Compounding 249
- The Present Value of an Annuity—Developing a Formula 255
- The Present Value of an Annuity—Solving Problems 257

INSIGHTS: Practical Finance *The Lottery: Congratulations, You're Rich—But Not as Rich as You Thought* 258

- The Annuity Due 265
- Perpetuities 269
- Multipart Problems 272
- Uneven Streams and Imbedded Annuities 275
- Questions 278**
- Business Analysis 278**
- Problems 278**
- Computer Problems 285**
- Developing Software 286**

CHAPTER 7 The Valuation and Characteristics of Bonds 287**The Basis of Value 287**

- Investing 288
- Return 288

Bond Valuation 289

- Bond Terminology and Practice 290
- Bond Valuation—Basic Ideas 290
- Determining the Price of a Bond 292
- Maturity Risk Revisited 298
- Finding the Yield at a Given Price 299
- Call Provisions 301

INSIGHTS: Practical Finance *Can a Bond Be a Bond Without Paying Interest?* 303

- Risky Issues 307

Convertible Bonds 307

- Advantages of Convertible Bonds 310
- Forced Conversion 311

- Valuing (Pricing) Convertibles 311
- Effect on Earnings Per Share—Diluted EPS 314
- Other Convertible Securities 317

Institutional Characteristics of Bonds 317

- Registration, Transfer Agents, and Owners of Record 317
- Kinds of Bonds 318

INSIGHTS: Practical Finance *Can a Bond Have a Negative Interest Rate?* 319

- Bond Ratings—Assessing Default Risk 319
- Bond Indentures—Controlling Default Risk 322

INSIGHTS: Ethics *Ethical Debt Management* 322

Questions 323**Business Analysis 324****Problems 325****Computer Problems 329****Appendix 7A: Lease Financing 330****Questions 345****Business Analysis 345****Problems 346****CHAPTER 8 The Valuation and Characteristics of Stock 348****Common Stock 349**

- The Return on an Investment in Common Stock 349
- The Nature of Cash Flows from Common Stock Ownership 350
- The Basis of Value 351

Growth Models of Common Stock Valuation 353

- Developing Growth-Based Models 353
- The Constant Growth Model 355
- The Expected Return 358
- Two-Stage Growth 358
- Practical Limitations of Pricing Models 361

INSIGHTS: Practical Finance *Reconciling Valuation Theory and Practice* 362

Valuing New Stocks—Investment Banking and the Initial Public Offering (IPO) 363

- IPOs for Different Securities 363
- Investment Banking 364
- Promoting and Pricing the IPO 365
- Book Building and the Road Show 365
- Prices After the IPO 366

INSIGHTS: Practical Finance *Facebook's IPO: How to Feel Bad About Raising \$16B* 368

Some Institutional Characteristics of**Common Stock 369**

- Corporate Organization and Control 369
- Voting Rights and Issues 370
- Stockholders' Claims on Income and Assets 371

Preferred Stock 372

- Valuation of Preferred Stock 372
- Characteristics of Preferred Stock 373

Securities Analysis 374**Options and Warrants 376**

- Options in General 376
- Stock Options 376
- Call Options 377
- Intrinsic Value 378
- Options and Leverage 379
- Trading in Options 381
- Writing Options 382
- Put Options 384
- Option Pricing Models 384
- Warrants 385
- Employee Stock Options 386
- Questions 389**
- Business Analysis 389**
- Problems 389**
- Computer Problems 393**
- Developing Software 394**
- Thomson One Business School Edition 394**

CHAPTER 9 Risk and Return 396**Why Study Risk and Return? 396**

- The General Relationship Between Risk and Return 397
- The Return on an Investment 399
- Risk—A Preliminary Definition 400

Portfolio Theory 401

- Review of the Concept of a Random Variable 401
- The Return on a Stock Investment as a Random Variable 406
- Risk Redefined as Variability 408
- Risk Aversion 409
- Decomposing Risk—Systematic (Market) and Unsystematic (Business-Specific) Risk 413
- Portfolios 414
- Diversification—How Portfolio Risk Is Affected When Stocks are Added 415
- Measuring Market Risk—The Concept of Beta 419

INSIGHTS: Practical Finance *Is It Investing or Gambling?* 420**INSIGHTS: Practical Finance** *Just How Risky Is AT&T—Really? A Problem with Betas* 423

- Using Beta—The Capital Asset Pricing Model (CAPM) 424
- The Validity and Acceptance of the CAPM and its SML 432

INSIGHTS: Practical Finance *Beta in Practice* 434

- Questions 435**
- Business Analysis 436**

Problems 436

- Computer Problem 442**
- Developing Software 443**
- Thomson One Business School Edition 443**

PART 3**Business Investment****Decisions—Capital Budgeting****CHAPTER 10 Capital Budgeting 446****Characteristics of Business Projects 447**

- Project Types and Risk 447
- Stand-Alone and Mutually Exclusive Projects 447
- Project Cash Flows 448
- The Cost of Capital 448

Capital Budgeting Techniques 449

- Payback Period 449
- Net Present Value (NPV) 451
- Internal Rate of Return (IRR) 456

INSIGHTS: Practical Applications *The Modified Internal Rate of Return (MIRR)* 462

- Comparing IRR and NPV 463
- NPV and IRR Solutions Using Financial Calculators and Spreadsheets 465
- Projects with a Single Outflow and Regular Inflows 466
- Profitability Index (PI) 467
- Comparing Projects with Unequal Lives 469

INSIGHTS: Practical Finance *Which Methods Do Businesses Prefer?* 469

- Capital Rationing 473
- Questions 475**
- Business Analysis 475**
- Problems 476**
- Calculator Problems 480**
- Computer Problems 483**

CHAPTER 11 Cash Flow Estimation 485**Cash Flow Estimation 485**

- Capital Budgeting Processes 485

Project Cash Flows—An Overview and Some Specifics 486

- The General Approach to Cash Flow Estimation 486
- A Few Specific Issues 487

Estimating New Venture Cash Flows 490

- Terminal Values 495
- Accuracy and Estimates 496
- MACRS—A Note on Depreciation 497
- Expansion Projects 498

Estimating Cash Flows for Replacement Projects 498**INSIGHTS: Ethics** *Ethics in Cash Flow Estimation* 503

- Questions 503
- Business Analysis 503
- Problems 505
- Computer Problem 511

CHAPTER 12 Risk Topics and Real Options in Capital Budgeting 513

Risk in Capital Budgeting—General Considerations 513

- Cash Flows as Random Variables 514
- The Importance of Risk in Capital Budgeting 515

Incorporating Risk into Capital Budgeting—Numerical and Computer Methods 517

- Scenario/Sensitivity Analysis 517
- Computer (Monte Carlo) Simulation 519
- Decision Tree Analysis 521

Real Options 525

- Real Options in Capital Budgeting 526
- Valuing Real Options 529

INSIGHTS: Real Applications *Volatile Energy Prices and Real Options Thinking Can Lead to Big Profits on Inefficient Facilities 530*

- Designing Real Options into Projects 531

Incorporating Risk into Capital Budgeting—

The Theoretical Approach

and Risk-Adjusted Rates of Return 531

- Estimating Risk-Adjusted Rates Using CAPM 533
- Problems with the Theoretical Approach— Finding the Right Beta and Concerns About the Appropriate Risk Definition 536

- Certainty Equivalents 537

Questions 540

Business Analysis 540

Problems 541

CHAPTER 13 Cost of Capital 548

The Purpose of the Cost of Capital 548

Cost of Capital Concepts 549

- Capital Components 549
- Capital Structure 549

INSIGHTS: Practical Finance *The Cost of Capital—Intuitively 550*

- Returns on Investments and the Costs of Capital Components 551
- The Weighted Average Calculation—The WACC 551
- Capital Structure and Cost—Book Versus Market Value 552

Calculating the WACC 554

- Developing Market Value Based Capital Structures 554
- Calculating Component Costs of Capital 556

- Putting the Weights and Costs Together 563

The Marginal Cost of Capital (MCC) 563

- The Break in MCC When Retained Earnings Run Out 563

The Cost of Capital—A Comprehensive Example 566

A Potential Mistake—Handling Separately Funded Projects 572

INSIGHTS: Practical Finance *Revisiting EVA 572*

Questions 573

Business Analysis 574

Problems 575

PART 4

Long-Term Financing Issues

CHAPTER 14 Capital Structure and Leverage 582

Background 583

- The Central Issue 583
- Risk in the Context of Leverage 584
- Leverage and Risk—Two Kinds of Each 585
- Our Approach to Leverage 586

Financial Leverage 586

- The Effect of Financial Leverage 586
- Financial Leverage and Financial Risk 592
- Putting the Ideas Together—The Effect on Stock Price 593

INSIGHTS: Real Applications *AOL and Time Warner: The Perils of Leverage 595*

- The Degree of Financial Leverage (DFL)—A Measurement 596
- EBIT–EPS Analysis 599

Operating Leverage 602

- Terminology and Definitions 602
- Breakeven Analysis 603
- Breakeven Diagrams 603
- The Effect of Operating Leverage 606
- The Degree of Operating Leverage (DOL)—A Measurement 609
- Comparing Operating and Financial Leverage 610
- The Compounding Effect of Operating and Financial Leverage 611

Capital Structure Theory 613

- Background—The Value of the Firm 613

INSIGHTS: Practical Finance *Leverage and Business Strategy 614*

- The Early Theory by Modigliani and Miller 615
- Relaxing the Assumptions—More Insights 619
- An Insight into Mergers and Acquisitions 623
- Questions 625

Business Analysis	626
Problems	627
Thomson ONE Business School Edition	632

CHAPTER 15 Dividends 634

Background 634

Dividends As a Basis for Value	634
Understanding the Dividend Decision	637

The Dividend Controversy 638

Dividend Irrelevance	638
Dividend Preference	642
Dividend Aversion	642
Other Theories and Ideas	643
Conclusion	645

Practical Considerations 645

Legal and Contractual Restrictions on Dividends	645
Dividend Policy	646

INSIGHTS: Practical Finance *The Dividend Aristocrats* 647

The Mechanics of Dividend Payments	648
Stock Splits and Dividends	650

Stock Repurchases (Buybacks) 653

Repurchase As an Alternative to a Dividend	653
--	-----

INSIGHTS: Real Applications *Share Repurchases Can Be a Risky Strategy* 655

Other Repurchase Issues	656
-------------------------	-----

Questions 658

Business Analysis 658

Problems 659

PART 5

Operations

CHAPTER 16 The Management of Working Capital 664

Working Capital Basics 665

Working Capital, Funding Requirements, and the Current Accounts	665
---	-----

INSIGHTS: Practical Finance *Going Broke Profitably* 666

The Objective of Working Capital Management	667
Operations—The Cash Conversion Cycle	668
Permanent and Temporary Working Capital	669
Financing Net Working Capital	669
Working Capital Policy	674

Sources of Short-Term Financing 674

Spontaneous Financing	675
Unsecured Bank Loans	677
Revolving Credit Agreement	677

Commercial Paper	679
Short-Term Credit Secured by Current Assets	680

Cash Management 685

Definitions and Objectives	685
Marketable Securities	687
Check Disbursement and Collection Procedures	687
Accelerating Cash Receipts	689

INSIGHTS: Real Applications *Technology Is Speeding Up the Check Clearing Process: "Check 21," the Check Clearing for the 21st Century Act* 690

Managing Cash Outflow	691
Evaluating the Cost of Cash Management Services	692

INSIGHTS: Ethics *Ethical Cash Management* 693

Cash Budgeting (Forecasting)	693
------------------------------	-----

Managing Accounts Receivable 694

Objectives and Policy	694
Determinants of the Receivables Balance	695

INSIGHTS: Practical Finance *A Practical Management Warning* 698

Inventory Management 699

Who is Responsible for Inventories?	700
The Benefits and Costs of Carrying Inventory	700
Inventory Control and Management	701
The Economic Order Quantity (EOQ) Model	702
Safety Stocks, Reorder Points, and Lead Times	705
Tracking Inventories—The ABC System	706
Just in Time (JIT) Inventory Systems	706

Questions 708

Business Analysis 710

Problems 711

CHAPTER 17 Corporate Restructuring 717

Mergers and Acquisitions 717

Basic Definitions, Terminology, and Procedure	718
The Antitrust Laws	722
The Reasons Behind Mergers	723
Holding Companies	725
The History of Merger Activity in the United States	725
Merger Analysis and the Price Premium	730

INSIGHTS: Practical Finance *A Classic Case: How a Trendy Soft Drink Gave Cereal Giant Quaker Oats a \$1.4 Billion Case of Indigestion* 737

Defensive Tactics	738
-------------------	-----

Other Kinds of Takeovers—LBOs and Proxy Fights 740

Leveraged Buyouts (LBOs)	740
Proxy Fights	742

Divestitures 743

The Reasons for Divestitures	743
Methods of Divesting Operations	743

Bankruptcy and the Reorganization of Failed

Businesses 744

Failure and Insolvency 744

Bankruptcy—Concept and Objectives 745

Bankruptcy Procedures—Reorganization, Restructuring,
Liquidation 745

INSIGHTS: Ethics *Has Bankruptcy Been Too Easy for
Too Long? The Bankruptcy Reform Act of 2005* 748

Questions 751

Business Analysis 751

Problems 753

CHAPTER 18 International Finance 758

Currency Exchange 759

The Foreign Exchange Market 759

Exchange Rates 759

Changing Exchange Rates and Exchange Rate Risk 762

Supply and Demand—The Source of

Exchange Rate Movement 764

Governments and the International Monetary
System 766

International Capital Markets 768

The Unique Status of the U.S. Dollar 769

The Eurodollar Market 770

The International Bond Market 770

Political Risk 771

Transaction and Translation Risks 772

INSIGHTS: Ethics *The Foreign Corrupt Practices Act
(FCPA)—A Legal/Ethical Dilemma* 772

Current Issues in International Trade 775

Background: Free Trade, the Theory of Comparative
Advantage, and Protectionism 775

Globalization 777

Increased Protectionism 778

The Migration of Jobs—Outsourcing 778

Labor Migration and Illegal Immigration 779

The Balance of Trade with China and Its

Inconvertible Currency 780

European Sovereign Debt Crisis 781

Questions 783

Business Analysis 784

Problems 785

APPENDICES

A: Financial Tables 788

B: Answers to Selected Problems Online

C: Formulas 796

Glossary 802

Index 821