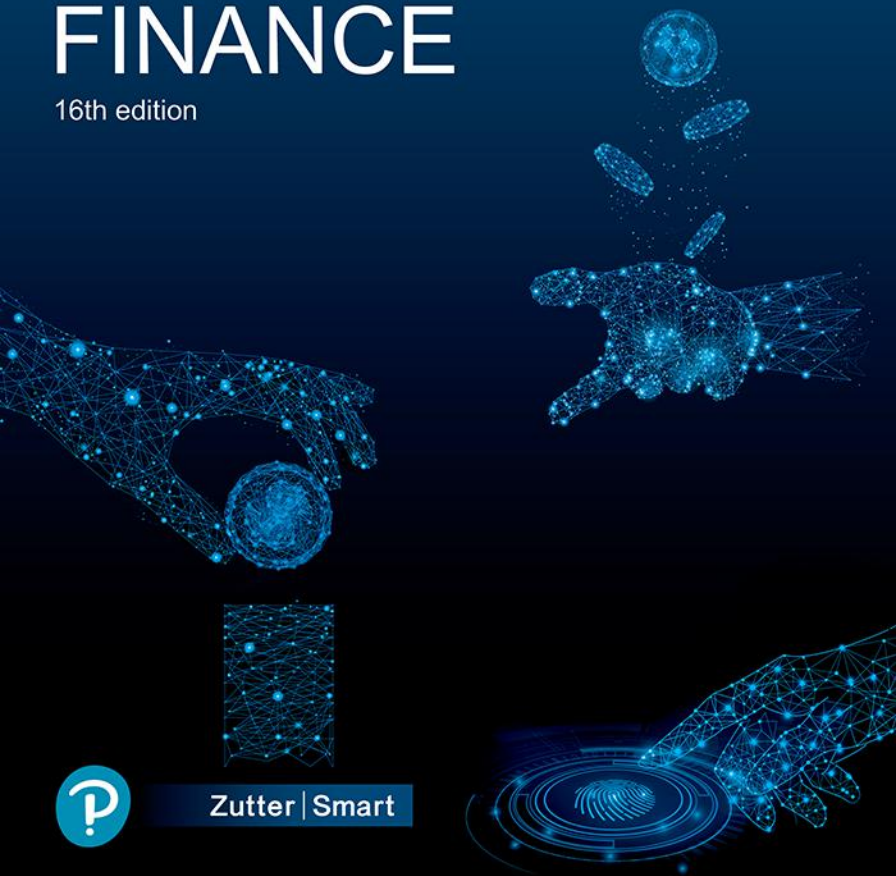


PRINCIPLES of

MANAGERIAL FINANCE

16th edition



Zutter | Smart

Principles of Managerial Finance

This page is intentionally left blank

SIXTEENTH EDITION

Principles of Managerial Finance

Chad J. Zutter

University of Pittsburgh

Scott B. Smart

Indiana University



Please contact <https://support.pearson.com/getsupport/s/> with any queries on this content.

Cover Image by: Thitichaya Yajampa/Shutterstock; Anttoniart/Shutterstock.

Microsoft and/or its respective suppliers make no representations about the suitability of the information contained in the documents and related graphics published as part of the services for any purpose. All such documents and related graphics are provided “as is” without warranty of any kind. Microsoft and/or its respective suppliers hereby disclaim all warranties and conditions with regard to this information, including all warranties and conditions of merchantability, whether express, implied or statutory, fitness for a particular purpose, title and non-infringement. In no event shall Microsoft and/or its respective suppliers be liable for any special, indirect or consequential damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortious action, arising out of or in connection with the use or performance of information available from the services.

The documents and related graphics contained herein could include technical inaccuracies or typographical errors. Changes are periodically added to the information herein. Microsoft and/or its respective suppliers may make improvements and/or changes in the product(s) and/or program(s) described herein at any time. Partial screen shots may be viewed in full within the software version specified.

Microsoft® and Windows® are registered trademarks of the Microsoft Corporation in the U.S.A. and other countries. This book is not sponsored or endorsed by or affiliated with the Microsoft Corporation.

Copyright © 2022, 2019, 2015 by Pearson Education, Inc. or its affiliates, 221 River Street, Hoboken, NJ 07030. All Rights Reserved. Manufactured in the United States of America. This publication is protected by copyright, and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise. For information regarding permissions, request forms, and the appropriate contacts within the Pearson Education Global Rights and Permissions department, please visit www.pearsoned.com/permissions/.

Acknowledgments of third-party content appear on the appropriate page within the text. Focus on People/Planet/Profits title inspired by John Elkington (johnelkington.com).

PEARSON, ALWAYS LEARNING, and MYLAB are exclusive trademarks owned by Pearson Education, Inc. or its affiliates in the U.S. and/or other countries.

Unless otherwise indicated herein, any third-party trademarks, logos, or icons that may appear in this work are the property of their respective owners, and any references to third-party trademarks, logos, icons, or other trade dress are for demonstrative or descriptive purposes only. Such references are not intended to imply any sponsorship, endorsement, authorization, or promotion of Pearson's products by the owners of such marks, or any relationship between the owner and Pearson Education, Inc., or its affiliates, authors, licensees, or distributors.

Library of Congress Cataloging-in-Publication Data

Names: Zutter, Chad J., author. | Smart, Scott B., author.

Title: Principles of managerial finance / Chad J. Zutter, University of Pittsburgh, Scott B. Smart, Indiana University.

Description: Sixteenth Edition. | New York: Pearson, 2021. | Revised edition of Principles of managerial finance, [2019] | Includes bibliographical references and index.

Identifiers: LCCN 2020044253 (print) | LCCN 2020044254 (ebook) | ISBN 9780136945888 (hardcover) | ISBN 9780136945659 (ebook)

Subjects: LCSH: Corporations—Finance. | Business enterprises—Finance.

Classification: LCC HG4011 .G5 2021 (print) | LCC HG4011 (ebook) | DDC 658.15—dc23

LC record available at <https://lcn.loc.gov/2020044253>

LC ebook record available at <https://lcn.loc.gov/2020044254>

ScoutAutomatedPrintCode



ISBN-10: 0-13-694588-0
ISBN-13: 978-0-13-694588-8

*Dedicated to my parents who
have always been there for me.*

CJZ

*Dedicated to
my father, Kenneth Smart.*

SBS

This page is intentionally left blank

Brief Contents

Contents ix
About the Authors xxix
Preface xxxi
Acknowledgments xli

PART 1 Introduction to Managerial Finance 1

- 1** The Role of Managerial Finance 2
- 2** The Financial Market Environment 43

PART 2 Financial Tools 79

- 3** Financial Statements and Ratio Analysis 80
- 4** Long- and Short-Term Financial Planning 145
- 5** Time Value of Money 194

PART 3 Valuation of Securities 263

- 6** Interest Rates and Bond Valuation 264
- 7** Stock Valuation 318

PART 4 Risk and the Required Rate of Return 359

- 8** Risk and Return 360
- 9** The Cost of Capital 419

PART 5 Long-Term Investment Decisions 455

- 10** Capital Budgeting Techniques 456
- 11** Capital Budgeting Cash Flows 502
- 12** Risk and Refinements in Capital Budgeting 544

PART 6 Long-Term Financial Decisions 595

- 13** Leverage and Capital Structure 596
- 14** Payout Policy 641

PART 7 Short-Term Financial Decisions 691

- 15** Working Capital and Current Assets Management 692
- 16** Current Liabilities Management 730

PART 8 Special Topics in Managerial Finance 765

- 17** Hybrid and Derivative Securities 766
- 18** Mergers, LBOs, Divestitures, and Business Failure 804
- 19** International Managerial Finance 848

Appendix A-1
Glossary G-1
Index I-1

This page is intentionally left blank

Contents

About the Authors xxix

Preface xxxi

Acknowledgments xli

PART 1 Introduction to Managerial Finance 1

1

The Role of Managerial Finance 2



▲ Kristoffer Tripplaar/Alamy
Stock Photo

1.1 Finance and the Firm 4

What Is Finance? 4

What is a Firm? 5

What is the Goal of the Firm? 5

FOCUS ON ETHICS:

Do Corporate Executives Have a Social Responsibility? 6

The Role of Business Ethics 10

FOCUS ON PRACTICE:

Must Search Engines Screen Out Fake News? 11

→ REVIEW QUESTIONS 12

1.2 Managing the Firm 12

The Managerial Finance Function 13

→ REVIEW QUESTIONS 20

1.3 Organizational Forms, Taxation, and the Principal-Agent Relationship 21

Legal Forms of Business

Organization 21

FOCUS ON PEOPLE, PLANET/

PROFITS: The Business Roundtable

Revisits the Goal of a Corporation 24

Agency Problems and Agency Costs 29

Corporate Governance 30

→ REVIEW QUESTIONS 34

1.4 Developing Skills for Your Career 34

Critical Thinking 34

Communication and Collaboration 34

Financial Computing Skills 35

Summary 35

Opener-In-Review 36

Self-Test Problem 37

Warm-Up Exercises 37

Problems 38

Spreadsheet Exercise 42

2 The Financial Market Environ- ment 43



▲ YuniqueB/Shutterstock

- 2.1 Financial Institutions** 45
Commercial Banks, Investment Banks, and
the Shadow Banking System 45

→ **REVIEW QUESTIONS** 47

- 2.2 Financial Markets** 47
The Relationship Between Institutions and
Markets 47

The Money Market 48

The Capital Market 49

FOCUS ON PRACTICE:

Berkshire Hathaway: Can Buffett Be
Replaced? 50

The Efficient Markets Hypothesis 54

FOCUS ON ETHICS:

Should Insider Trading Be
Legal? 58

→ **REVIEW QUESTIONS** 59

- 2.3 Regulation of Financial
Markets and Institutions** 59

Regulations Governing Financial
Institutions 59

Regulations Governing Financial
Markets 60

→ **REVIEW QUESTIONS** 61

- 2.4 The Securities Issuing
Process** 61

Issuing Common Stock 61

→ **REVIEW QUESTIONS** 68

- 2.5 Financial Markets in
Crisis** 68

Financial Institutions and Real Estate
Finance 68

Spillover Effects and Recovery from the
Great Recession 70

Pandemic Effects on Financial Markets 71

FOCUS ON PEOPLE/PLANET/

PROFITS: Financial Institutions Pressure
Companies on ESG Scores 71

→ **REVIEW QUESTIONS** 72

Summary 72

Opener-In-Review 74

Self-Test Problem 74

Warm-Up Exercises 74

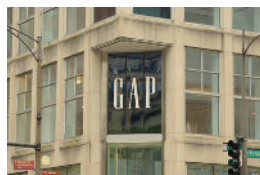
Problems 75

Spreadsheet Exercise 77

INTEGRATIVE CASE 1 Merit
Enterprise Corp. 78

PART 2 Financial Tools 79

3 Financial Statements and Ratio Analysis 80



▲ Scott Naidow/
Shutterstock

3.1 Mandatory Financial Reports of Public Companies 82

The Letter to Stockholders 82
The Four Key Financial Statements 82

➔ **FOCUS ON PRACTICE:**
More Countries Adopt International
Financial Reporting Standards 83

➔ **FOCUS ON ETHICS:**
Earnings Shenanigans 86
Notes to the Financial Statements 89
Consolidating International Financial
Statements 90

➔ **REVIEW QUESTIONS** 91

3.2 Using Financial Ratios 91

Interested Parties 91
Types of Ratio Comparisons 91
Cautions About Using Ratio
Analysis 94

➔ **REVIEW QUESTIONS** 95

3.3 Liquidity Ratios 95

Current Ratio 96
Quick (Acid-Test) Ratio 97

➔ **REVIEW QUESTIONS** 98

3.4 Activity Ratios 99

Inventory Turnover Ratio 99
Average Collection Period 100
Average Payment Period 101
Total Asset Turnover 102

➔ **REVIEW QUESTION** 102

3.5 Debt Ratios 103

Debt Ratio 104
Debt-to-Equity Ratio 105

Times Interest Earned Ratio 106
Fixed-Payment Coverage Ratio 106

➔ **REVIEW QUESTIONS** 107

3.6 Profitability Ratios 107

Common-Size Income Statements 107
Gross Profit Margin 108
Operating Profit Margin 110
Net Profit Margin 110
Earnings per Share (EPS) 111
Return on Total Assets (ROA) 112
Return on Equity (ROE) 112

➔ **REVIEW QUESTIONS** 114

3.7 Market Ratios 114

Price/Earnings (P/E) Ratio 114
Market/Book (M/B) Ratio 116

➔ **REVIEW QUESTION** 117

3.8 A Complete Ratio Analysis 117

Summary of Target's Financial
Condition 118
Dupont System of Analysis 119
➔ **REVIEW QUESTIONS** 122

Summary 122
Opener-In-Review 124
Self-Test Problems 124
Warm-Up Exercises 125
Problems 126
Spreadsheet Exercise 143

4 Long- and Short-Term Financial Planning 145



▲ 360b/Alamy Stock Photo

4.1 The Financial Planning Process 147

Long-Term (Strategic) Financial Plans 147

Short-Term (Operating) Financial Plans 148

→ REVIEW QUESTIONS 149

4.2 Measuring the Firm's Cash Flow 149

Depreciation 149

Depreciation Methods 150

Developing the Statement of Cash Flows 152

Free Cash Flow 157

FOCUS ON ETHICS:

Is Excess Cash Always a Good Thing? 158

FOCUS ON PRACTICE:

Free Cash Flow at Abercrombie & Fitch 159

→ REVIEW QUESTIONS 159

4.3 Cash Planning: Cash Budgets 160

The Sales Forecast 160

Preparing the Cash Budget 161

Evaluating the Cash Budget 166

Coping with Uncertainty in the Cash Budget 167

→ REVIEW QUESTIONS 168

4.4 Profit Planning: Pro Forma Statements 168

Current Year's Financial Statements 168

Sales Forecast 170

→ REVIEW QUESTION 170

4.5 Preparing the Pro Forma Income Statement 170

Considering Types of Costs and Expenses 171

→ REVIEW QUESTIONS 172

4.6 Preparing the Pro Forma Balance Sheet 172

FOCUS ON PEOPLE/PLANET/PROFITS: Financial Planning and Financial Sustainability 174

→ REVIEW QUESTIONS 175

4.7 Evaluation of Pro Forma Statements 175

→ REVIEW QUESTIONS 176

Summary 176

Opener-In-Review 177

Self-Test Problems 178

Warm-Up Exercises 179

Problems 180

Spreadsheet Exercise 193

5 Time Value of Money 194



▲ John Hart/Wisconsin
State Journal/AP Images

5.1 The Role of Time Value in Finance 196

Future Value Versus Present Value 196

Computational Tools 197

Basic Patterns of Cash Flow 199

→ **REVIEW QUESTIONS** 200

5.2 Single Amounts 200

Future Value of a Single Amount 200

Present Value of a Single Amount 204

→ **REVIEW QUESTIONS** 207

→ **EXCEL REVIEW QUESTIONS** 207

5.3 Annuities 208

Types of Annuities 208

Finding the Future Value of an Ordinary
Annuity 209

Finding the Present Value of an
Ordinary Annuity 210

Finding the Future Value of an Annuity
Due 212

Finding the Present Value of an Annuity
Due 213

Finding the Present Value of a
Perpetuity 215

→ **FOCUS ON PEOPLE/PLANET/**
PROFITS: The Time Value of Money Heats Up
Climate Change Debate 216

→ **REVIEW QUESTIONS** 217

→ **EXCEL REVIEW QUESTIONS** 217

5.4 Mixed Streams 217

Future Value of a Mixed Stream 217

Present Value of a Mixed Stream 219

→ **REVIEW QUESTION** 220

→ **EXCEL REVIEW QUESTION** 220

5.5 Compounding Interest More Frequently Than Annually 221

Semiannual Compounding 221

Quarterly Compounding 221

A General Equation for
Compounding 222

Using Computational Tools for
Compounding 223

Continuous Compounding 224

Nominal and Effective Annual Rates
of Interest 224

→ **REVIEW QUESTIONS** 227

→ **FOCUS ON ETHICS:**
Was the Deal for Manhattan a
Swindle? 227

→ **EXCEL REVIEW QUESTIONS** 228

5.6 Special Applications of Time Value 228

Determining Deposits Needed to
Accumulate a Future Sum 228

Loan Amortization 229

Finding Interest or Growth Rates 231

→ **FOCUS ON PRACTICE:**
New Century Brings Trouble for
Subprime Mortgages 232

Finding an Unknown Number of
Periods 234

→ **REVIEW QUESTIONS** 235

→ **EXCEL REVIEW QUESTIONS** 236

Summary 236

Opener-In-Review 237

Self-Test Problems 238

Warm-Up Exercises 239

Problems 240

Spreadsheet Exercise 257

INTEGRATIVE CASE 2 Track Software
Inc. 258

PART 3 Valuation of Securities 263

6 Interest Rates and Bond Valuation 264



▲ BFA/United Artists/Alamy
Stock Photo

6.1 Interest Rates and Required Returns 266

Interest Rate Fundamentals 266

Term Structure of Interest Rates 271

FOCUS ON PRACTICE:

I-Bonds Adjust for Inflation 272

Risk Premiums: Issuer and Issue Characteristics 277

→ REVIEW QUESTIONS 278

6.2 Government and Corporate Bonds 278

Legal Aspects of Corporate Bonds 279

Cost of Bonds to the Issuer 280

General Features of a Bond Issue 281

Bond Yields 281

Bond Prices 282

Bond Ratings 282

Common Types of Bonds 283

International Bond Issues 283

FOCUS ON ETHICS:

"Can Bond Ratings Be Trusted?" 285

FOCUS ON PEOPLE/

PLANET/PROFITS: How Do I Love Thee?

Let Me Count the Yield 286

→ REVIEW QUESTIONS 287

6.3 Valuation Fundamentals 287

Key Inputs 287

Basic Valuation Model 288

→ REVIEW QUESTIONS 289

6.4 Bond Valuation 290

Bond Fundamentals 290

Bond Values for Annual Coupons 290

Bond Values for Semiannual Coupons 292

Changes in Bond Prices 294

Yield to Maturity (YTM) 299

→ REVIEW QUESTIONS 303

→ EXCEL REVIEW QUESTIONS 303

Summary 303

Opener-In-Review 305

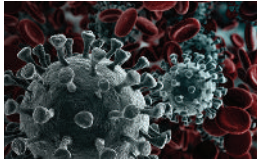
Self-Test Problems 305

Warm-Up Exercises 306

Problems 307

Spreadsheet Exercise 317

7 Stock Valuation 318



▲ Creativeneko/Shutterstock

7.1 Differences Between Debt and Equity 320

Voice in Management 320
Claims on Income and Assets 320
Maturity 320
Tax Treatment 321

→ **REVIEW QUESTION** 321

7.2 Common and Preferred Stock 321

Common Stock 321

FOCUS ON PEOPLE/PLANET/PROFITS: Shrinking and Growing at the Same Time 322

Preferred Stock 326

→ **REVIEW QUESTIONS** 328

7.3 Common Stock Valuation 328

Market Efficiency and Stock Valuation 328

Common Stock Dividend Valuation Model 330

FOCUS ON PRACTICE:
Understanding Human Behavior Helps Us Understand Investor Behavior 331

Free Cash Flow Stock Valuation Model 336

Other Approaches to Common Stock Valuation 339

FOCUS ON ETHICS:

Index Funds and Corporate Governance 341

→ **REVIEW QUESTIONS** 342

7.4 Decision Making and Common Stock Value 343

Changes in Expected Dividends 343

Changes in Risk 344

Combined Effect 344

→ **REVIEW QUESTIONS** 345

Summary 345

Opener-In-Review 347

Self-Test Problems 348

Warm-Up Exercises 348

Problems 349

Spreadsheet Exercise 357

INTEGRATIVE CASE 3 Encore International 358

PART 4 Risk and the Required Rate of Return 359

8 Risk and Return 360



▲ Three Sixty Images/
Shutterstock

8.1 Risk and Return Fundamentals 362

FOCUS ON ETHICS:

If It Seems Too Good to Be True, It
Probably Is 362

What Is Risk? 363

What Is Return? 363

Risk Preferences 365

→ REVIEW QUESTIONS 365

8.2 Risk of a Single Asset 366

Risk Assessment 366

Risk Measurement 369

→ REVIEW QUESTIONS 374

8.3 Risk of a Portfolio 375

Portfolio Return and Standard
Deviation 375

Correlation 378

Diversification and Efficient Portfolios 380

Summary of the Effect of Correlation on
Risk and Return 386

FOCUS ON GLOBAL FINANCE:

An International Flavor to
Diversification 387

→ REVIEW QUESTIONS 388

8.4 Risk and Return: The Capital Asset Pricing Model (CAPM) 388

Types of Risk 388

The Model: CAPM 389

FOCUS ON PEOPLE/PLANET/
PROFITS: Happy Employees Signal High
Stock Returns 399

→ REVIEW QUESTIONS 399

Summary 399

Opener-In-Review 401

Self-Test Problems 401

Warm-Up Exercises 402

Problems 403

Spreadsheet Exercise 417

9 The Cost of Capital 419



▲ QualityHD/Shutterstock

9.1 Overview of the Cost of Capital 421

FOCUS ON ETHICS:

The Cost of Capital Also Rises 421

The Basic Concept 422

Sources of Long-Term Capital 424

→ REVIEW QUESTIONS 425

9.2 Cost of Long-Term Debt 425

Net Proceeds 425

Before-Tax Cost of Debt 426

After-Tax Cost of Debt 427

→ REVIEW QUESTIONS 429

9.3 Cost of Preferred Stock 429

Preferred Stock Dividends 429

Calculating the Cost of Preferred
Stock 429

→ REVIEW QUESTION 430

9.4 Cost of Common Stock 430

Finding the Cost of Common Stock
Equity 430

Cost of Retained Earnings 434

→ REVIEW QUESTIONS 435

9.5 Weighted Average Cost of Capital 435

Calculating the Weighted Average Cost
of Capital (WACC) 435

FOCUS ON PRACTICE:

Uncertain Times Make for an
Uncertain Weighted Average Cost
of Capital 437

Capital Structure Weights 438

WACC as a Hurdle Rate 438

FOCUS ON PEOPLE/PLANET/

PROFITS: Diverse Boards Borrow Less 439

→ REVIEW QUESTIONS 440

Summary 440

Opener-In-Review 441

Self-Test Problem 441

Warm-Up Exercises 442

Problems 443

Spreadsheet Exercise 452

INTEGRATIVE CASE 4 Enviro Plastics
Company 453

PART 5 Long-Term Investment Decisions 455

10 Capital Budgeting Techniques 456



▲ Michael DeFreitas/Robert Harding/Alamy Stock Photo

10.1 Overview of Capital Budgeting 458

The Capital Budgeting Process 458

Terminology 459

Capital Budgeting Techniques 459

→ REVIEW QUESTION 461

10.2 Payback Period 461

Decision Criteria 461

Pros and Cons of Payback Analysis 462

➤ FOCUS ON PEOPLE/PLANET/
PROFITS: Payback from the Sun 464

Discounted Payback 465

→ REVIEW QUESTIONS 466

10.3 Net Present Value (NPV) 466

Decision Criteria 467

NPV and the Profitability Index 469

NPV and Economic Value Added 470

→ REVIEW QUESTIONS 473

10.4 Internal Rate of Return (IRR) 473

Decision Criteria 473

→ REVIEW QUESTIONS 476

10.5 Comparing NPV and IRR Techniques 476

Net Present Value Profiles 477

Conflicting Rankings 478

Other Problems with IRR 480

Modified IRR 482

Is NPV or IRR Better? 484

➤ FOCUS ON ETHICS:

Baby You Can Drive My Car—Just Not a VW Diesel 485

→ REVIEW QUESTIONS 485

Summary 486

Opener-In-Review 487

Self-Test Problem 487

Warm-Up Exercises 488

Problems 489

Spreadsheet Exercise 501

11

Capital Budgeting Cash Flows 502



▲ Kristoffer Tripplaar/Alamy
Stock Photo

- 11.1 Project Cash Flows** 504
 - Incremental Cash Flows 505
 - Sunk Costs and Opportunity Costs 506

FOCUS ON ETHICS:

- Fumbling Sunk Costs 507
- Financing Costs 508

→ **REVIEW QUESTIONS** 509

11.2 Finding the Initial Cash Flow 509

- Installed Cost of the New Asset 510
- After-Tax Proceeds from the Sale of the Old Asset 510
- Change in Net Working Capital 513
- Summary: Calculating the Initial Cash Flow 514

→ **REVIEW QUESTIONS** 515

11.3 Finding the Periodic Cash Flows 515

→ **REVIEW QUESTIONS** 521

11.4 Finding the Terminal Cash Flow 521

- After-Tax Proceeds from the Sale of New and Old Assets 521
- Change in Net Working Capital 522

→ **REVIEW QUESTION** 524

11.5 Putting It All Together 524

→ **REVIEW QUESTION** 526

- Summary 526
- Opener-In-Review 528
- Self-Test Problems 528
- Warm-Up Exercises 529
- Problems 530
- Spreadsheet Exercise 542

12

Risk and Refinements in Capital Budgeting 544



▲ TANNEN MAURY/
EPA-EFE/Shutterstock

12.1 Assessing Risk in Capital Budgeting 546

Break-Even Analysis 546

Operating Leverage 551

FOCUS ON PRACTICE:

Operating Leverage and Steel 554

Sensitivity Analysis 555

Scenario Analysis 556

Simulation 558

FOCUS ON PRACTICE:

The Monte Carlo Method: The Forecast Is for Less Uncertainty 560

→ REVIEW QUESTIONS 560

→ EXCEL REVIEW QUESTION 560

12.2 International Risk Considerations 561

→ REVIEW QUESTION 562

12.3 Risk-Adjusted Discount Rates 562

Determining Risk-Adjusted Discount Rates (RADRS) 562

FOCUS ON ETHICS:

Remain Calm—All is Well 565

Estimating RADRS 566

Portfolio Effects 567

→ REVIEW QUESTIONS 567

12.4 Capital Budgeting Refinements 568

Comparing Projects with Unequal Lives 568

Recognizing Real Options 571

FOCUS ON PEOPLE/PLANET/

PROFITS: Operating Leverage, Real Options, and Green Energy Investments 573

Capital Rationing 573

→ REVIEW QUESTIONS 576

→ EXCEL REVIEW QUESTION 576

Summary 576

Opener-in-review 578

Self-test Problem 578

Warm-up Exercises 578

Problems 580

Spreadsheet Exercise 592

INTEGRATIVE CASE 5 Lasting Impressions Company 593

PART 6 Long-Term Financial Decisions 595

13 Capital Structure 596



▲ Deposit Photos/Glow Images

13.1 Financial Leverage and Its Effects 598

FOCUS ON ETHICS:

Repo 105 Man 603

→ REVIEW QUESTIONS 604

13.2 Capital Structure Irrelevance in Perfect Markets 604

Proposition One: Value Is Independent of Financing Mix 604

Proposition Two: WACC Is Independent of Financing Mix 608

→ REVIEW QUESTIONS 611

13.3 M&M and Taxes 611

Corporate Taxes 611

FOCUS ON PEOPLE/PLANET/ PROFITS: Green Apple 614

Personal Taxes 614

→ REVIEW QUESTIONS 617

13.4 Trading Off Debt's Benefits and Costs 617

The Declining Marginal Tax Benefit of Debt 619

The Increasing Marginal Cost of Debt: Bankruptcy 620

A Capital Structure Tradeoff Model 622

Asset Characteristics and Bankruptcy Costs 624

→ REVIEW QUESTIONS 624

13.5 Other Factors That Influence Capital Structure Choices 625

Agency Costs 625

Asymmetric Information 628

FOCUS ON PRACTICE:

Evidence from a CFO Survey 630

→ REVIEW QUESTIONS 630

Summary 631

Opener-In-Review 633

Self-Test Problems 634

Warm-Up Exercises 634

Problems 635

Spreadsheet Exercise 640

14 Payout Policy 641



▲ Billy F Blume Jr/
Shutterstock

14.1 The Basics of Payout Policy 643

Elements of Payout Policy 643
Trends in Earnings and Dividends 644
Trends in Dividends and Share Repurchases 645

→ REVIEW QUESTIONS 648

FOCUS ON ETHICS:

Buyback Mountain 649

14.2 The Mechanics of Payout Policy 649

Cash Dividend Payment Procedures 651
Share Repurchase Procedures 652
Tax Treatment of Dividends and Repurchases 654

FOCUS ON PRACTICE:

Capital Gains and Dividend Tax Treatment Extended to 2012 and Beyond for Some 655

Dividend Reinvestment Plans 655
Stock Price Reactions to Corporate Payouts 656

→ REVIEW QUESTIONS 658

14.3 Value Relevance of Payout Policy 658

The Dividend Irrelevance Theory 658
The Impact of Dividends in Imperfect Markets 661
Why Payout Policy Matters 661
Residual Theory of Dividends 662

→ REVIEW QUESTIONS 663

14.4 Factors Affecting Payout Policy 664

Legal Constraints 664
Contractual Constraints 665
Growth Prospects 665

Owner Considerations 665
Market Considerations 666

→ REVIEW QUESTION 666

14.5 Types of Dividend Policies 666

Constant-Payout-Ratio Dividend Policy 666
Regular Dividend Policy 667
Low-Regular-and-Extra Dividend Policy 668

→ REVIEW QUESTION 669

14.6 Other Forms of Dividends 669

Stock Dividends 669
Stock Splits 670

→ REVIEW QUESTIONS 673

14.7 Criticisms of Payout Policy 673

→ REVIEW QUESTION 675

Summary 676
Opener-In-Review 677
Self-Test Problem 677
Warm-Up Exercises 678
Problems 679
Spreadsheet Exercise 686
INTEGRATIVE CASE 6 O'Grady Apparel Company 687

PART 7 Short-Term Financial Decisions 691

15 Working Capital and Current Assets Management 692



▲ Koya979/Fotolia

15.1 Net Working Capital Fundamentals 694

Working Capital Management 694

Net Working Capital 695

Tradeoff Between Profitability and
Risk 695

→ REVIEW QUESTIONS 697

15.2 Cash Conversion Cycle 697

Calculating the Cash Conversion
Cycle 698

Funding Requirements of the Cash
Conversion Cycle 700

Strategies for Managing the Cash
Conversion Cycle 703

→ REVIEW QUESTIONS 704

15.3 Inventory Management 704

Differing Viewpoints About Inventory
Level 704

Common Techniques for Managing
Inventory 705

FOCUS ON PRACTICE:

In Bed with RFID 709

→ REVIEW QUESTIONS 709

15.4 Accounts Receivable Management 710

Credit Selection and Standards 710

FOCUS ON ETHICS:

If You Can Bilk It, They Will Come 711

Credit Terms 713

Credit Monitoring 715

→ REVIEW QUESTIONS 717

15.5 Management of Receipts and Disbursements 717

Float 717

Speeding Up Collections 718

Slowing Down Payments 719

Cash Concentration 719

Zero-Balance Accounts 720

Investing in Marketable Securities 721

→ REVIEW QUESTIONS 723

Summary 723

Opener-In-review 725

Self-Test Problems 725

Warm-Up Exercises 725

Problems 726

Spreadsheet Exercise 729

16

Current Liabilities Management 730



▲ Ringo Chiu/Zuma Press, Inc./Alamy Stock Photo

16.1 Spontaneous Liabilities 732

Accounts Payable Management 732

Accruals 737

→ REVIEW QUESTIONS 737

16.2 Unsecured Sources of Short-Term Loans 737

FOCUS ON ETHICS:

Bank Loans and Shareholder Wealth 738

Bank Loans 738

FOCUS ON PEOPLE/

PLANET/PROFIT: Banks Transmit Values Through Loans 741

Commercial Paper 744

FOCUS ON PRACTICE:

The Ebb and Flow of Commercial Paper 745

International Loans 746

→ REVIEW QUESTIONS 747

16.3 Secured Sources of Short-Term Loans 748

Characteristics of Secured Short-Term Loans 748

Use of Accounts Receivable as Collateral 749

Use of Inventory as Collateral 752

→ REVIEW QUESTIONS 753

Summary 753

Opener-In-Review 755

Self-Test Problem 755

Warm-Up Exercises 755

Problems 756

Spreadsheet Exercise 762

INTEGRATIVE CASE 7 Casa de Diseño 763

PART 8 Special Topics in Managerial Finance 765

17 Hybrid and Derivative Securities 766



▲ EQRoy/Shutterstock

17.1 Overview of Hybrids and Derivatives 768

→ REVIEW QUESTION 768

17.2 Leasing 768

Types of Leases 768

FOCUS ON PRACTICE:

I'd Like to Return This (Entire Store), Please 770

Leasing Arrangements 770

Lease-Versus-Purchase Decision 771

Advantages of Leasing 775

→ REVIEW QUESTIONS 776

17.3 Convertible Securities 776

Types of Convertible Securities 776

General Features of Convertibles 777

FOCUS ON PEOPLE/PLANET/

PROFITS: Green CoCo Bonds 779

Financing with Convertibles 779

Determining the Value of a Convertible Bond 781

→ REVIEW QUESTIONS 783

17.4 Stock Purchase Warrants 783

Key Characteristics 783

Implied Price of an Attached Warrant 784

Values of Warrants 785

→ REVIEW QUESTIONS 788

17.5 Options 788

Calls and Puts 788

Options Markets 789

Options Trading 789

Role of Call and Put Options in Fund Raising 790

FOCUS ON ETHICS:

Banking on Options 791

Hedging Foreign-Currency Exposures with Options 792

→ REVIEW QUESTIONS 792

Summary 792

Opener-In-Review 794

Self-Test Problems 795

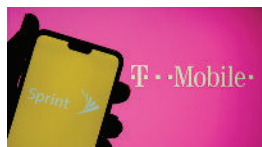
Warm-Up Exercises 796

Problems 796

Spreadsheet Exercise 802

18

Mergers, LBOs, Divestitures, and Business Failure 804



▲ Ascannio/Shutterstock

18.1 Merger Fundamentals 806

Terminology 806

Motives for Merging 808

FOCUS ON ETHICS:

Is There Any Good in Greed? 809

Types of Mergers 811

→ REVIEW QUESTIONS 812

18.2 LBOs and Divestitures 812

Leveraged Buyouts (LBOS) 812

Divestitures 813

→ REVIEW QUESTIONS 815

18.3 Analyzing and Negotiating Mergers 815

Valuing the Target Company 815

Stock Swap Transactions 817

Merger Negotiation Process 823

Holding Companies 824

International Mergers 826

→ REVIEW QUESTIONS 827

FOCUS ON GLOBAL FINANCE:

International Mergers 828

18.4 Business Failure Fundamentals 829

Types of Business Failure 829

Major Causes of Business Failure 829

Voluntary Settlements 830

→ REVIEW QUESTIONS 831

18.5 Reorganization and Liquidation in Bankruptcy 832

Bankruptcy Legislation 832

Reorganization In Bankruptcy
(Chapter 11) 833

Liquidation In Bankruptcy
(Chapter 7) 835

→ REVIEW QUESTIONS 836

Summary 837

Opener-In-Review 838

Self-Test Problems 839

Warm-Up Exercises 839

Problems 840

Spreadsheet Exercise 847

19 International Managerial Finance 848



▲ Anythings/Shutterstock

19.1 The Multinational Company and Its Environment 850

Key Trading Blocs 850

GATT and the WTO 852

Legal Forms of Business Organization 853

Taxes 854

Financial Markets 855

→ REVIEW QUESTIONS 855

19.2 Financial Statements 856

Subsidiary Characterization
and Functional Currency 856

Translation of Individual Accounts 856

→ REVIEW QUESTION 858

19.3 Risk 858

Exchange Rate Risks 858

Political Risks 866

➤ FOCUS ON ETHICS:

Is Fair-Trade Coffee Fair? 867

→ REVIEW QUESTIONS 868

19.4 Long-Term Investment and Financing Decisions 868

Foreign Direct Investment 868

Investment Cash Flows
and Decisions 868

Appendix A-1

Glossary G-1

Index I-1

Capital Structure 869

Long-Term Debt 870

➤ FOCUS ON GLOBAL
FINANCE:

Take an Overseas Assignment to Take a
Step Up the Corporate Ladder 871

Equity Capital 872

→ REVIEW QUESTIONS 873

19.5 Short-Term Financial Decisions 874

Cash Management 876

Credit and Inventory Management 878

→ REVIEW QUESTIONS 879

Summary 879

Opener-in-review 881

Self-test Problem 881

Warm-up Exercises 882

Problems 882

Spreadsheet Exercise 885

INTEGRATIVE CASE 8 Organic
Solutions 886

This page is intentionally left blank

About the Authors

Chad J. Zutter is a finance professor and the James Allen Faculty Fellow at the Katz Graduate School of Business at the University of Pittsburgh. Dr. Zutter received his B.B.A. from the University of Texas at Arlington and his Ph.D. from Indiana University. His research has a practical, applied focus and has been the subject of feature stories in, among other prominent outlets, *The Economist* and *CFO Magazine*. His papers have been cited in arguments before the U.S. Supreme Court and in consultation with companies such as Google and Intel. Dr. Zutter won the prestigious Jensen Prize for the best paper published in the *Journal of Financial Economics* and a best paper award from the *Journal of Corporate Finance*, where he is currently an Associate Editor. He has won teaching awards at the Kelley School of Business at Indiana University and the Katz Graduate School of Business at the University of Pittsburgh. Dr. Zutter also serves on the board of Lutheran SeniorLife and, prior to his career in academics, he was a submariner in the U.S. Navy. Dr. Zutter and his wife have four children and live in Pittsburgh, Pennsylvania. In his free time he enjoys horseback riding and downhill skiing.



Scott B. Smart is a finance professor and the Fettig/Whirlpool Finance Faculty Fellow at the Kelley School of Business at Indiana University. Dr. Smart received his B.B.A. from Baylor University and his M.A. and Ph.D. from Stanford University. His research focuses primarily on applied corporate finance topics and has been published in journals such as the *Journal of Finance*, the *Journal of Financial Economics*, the *Journal of Corporate Finance*, *Financial Management*, and others. His articles have been cited by business publications including *The Wall Street Journal*, *The Economist*, and *Business Week*. Winner of more than a dozen teaching awards, Dr. Smart has been listed multiple times as a top business school teacher by *Business Week*. He has held Visiting Professor positions at the University of Otago and Stanford University, and he worked as a Visiting Scholar for Intel Corporation, focusing on that company's mergers and acquisitions activity during the "Dot-com" boom in the late 1990s. As a volunteer, Dr. Smart currently serves on the board of the Indiana University Credit Union and on the Finance Committee for Habitat for Humanity of Monroe County. In his spare time he enjoys outdoor pursuits such as hiking and fly fishing.

This page is intentionally left blank

Preface

NEW TO THIS EDITION

Finance is a dynamic discipline, and as we made plans to publish the sixteenth edition, we were mindful of feedback from users of the fifteenth edition and of changes in managerial finance practices that have taken hold in recent years. For example, firms now operate in an environment in which they are judged not only by their financial results, but also by their performance on environmental, social, and governance metrics. In this edition we highlight how companies may tap specialized bond markets to fund green investments, how diversity influences board decisions, and how leaders of some of the world's largest businesses are engaging in new debates about the goals their firms should pursue.

In every chapter, our changes focused on keeping the material current and relevant for students. In appropriate places, new topics were added and new or updated features appear in each chapter. Here is a list of some of the revisions:

- We replaced or updated all of the chapter-opening vignettes that feature stories gathered from the business press that illustrate key ideas or concepts in each chapter. Many of the chapter openers feature companies such as Aston Martin, Netflix, Apple, H&R Block, T-Mobile, American Airlines, and Dollar General that are familiar to students. We designed these opening vignettes to impress upon students that the material they will see in each chapter is relevant for business in the “real world.”
- To add further value to the chapter-opening vignettes, at the end of each chapter we provide an Opener-In-Review question that asks students to apply a concept they have learned in the chapter to the business situation described in the chapter opener.
- We have updated many of the *Focus on Practice* and *Focus on Ethics* boxes that appear throughout the chapters, and we have added a *Focus on People/Planet/Profits* box in most chapters. The Focus on People/Planet/Profits boxes highlight how firms' decisions and prices in financial markets reflect societal concerns about issues ranging from climate change to diversity and inclusion.
- In this edition we added more in-chapter examples and end-of-chapter problems that expose students to real-world data.

The chapter sequence is essentially unchanged from the prior edition, though there is new content in every chapter, and some chapters (especially Chapter 13) were heavily revised. This edition contains nineteen chapters divided into eight parts. Each part is introduced by a brief overview, which is intended to give students an advance sense for the collective value of the chapters included in the part.

Part 1 contains two chapters. Chapter 1 provides an overview of the role of managerial finance in a business enterprise and emphasizes the goal of the firm and the broad principles that financial managers use in their pursuit of that goal. This edition highlights the renewed debate, sparked in part by The Business Roundtable, about whether firms should act in the interests of their shareholders or on behalf of a larger group of stakeholders. Chapter 2 describes the financial market

environment in which firms operate and interact with investors through the various financial institutions and markets. This edition includes expanded discussion of the efficient market hypothesis and security price movements, as well as new content on the effects of the COVID-19 pandemic on financial markets.

Part 2 contains three chapters focused on basic financial skills such as financial statement analysis, cash flow analysis, and time-value-of-money calculations. Chapter 3 provides an overview of financial statements and in-depth financial ratio analysis using real data from Target Corporation. The financial ratio analysis provides opportunities for interesting discussion about Target's financial performance for its three most recent fiscal years and relative to some of its key competitors. Chapter 4 emphasizes first the broad goals of strategic and operational financial planning and then the importance of cash flow within any financial plan. Chapter 5 provides straightforward and intuitive coverage of all time-value-of-money concepts used throughout the textbook. Chapter 5 also introduces newly formatted calculator screenshots that demonstrate the exact keystrokes used to complete time-value-of-money calculations. Figure 5.5 offers a new visual representation of how simple and compound interest accumulate over time.

Part 3 focuses on bond and stock valuation. We placed these two chapters just ahead of the risk and return chapter to provide students with exposure to basic material on bonds and stocks that is easier to grasp than are some of the more theoretical concepts in the next part. New in Chapter 6 is an expanded discussion of bond price sensitivity to interest rate changes and Figure 6.6 that illustrates this relation for several bonds with varying characteristics. Chapter 7 continues to provide comprehensive coverage of methods for stock valuation with rewritten examples valuing Rocky Mountain Chocolate Factory, Procter & Gamble, and Broadcom with (respectively) the zero-growth, constant-growth, and variable-growth dividend models. The chapter also includes a free-cash-flow valuation of Ruth's Chris Steak House.

Part 4 contains the risk and return chapter as well as the chapter on the cost of capital. We believe that following the risk and return chapter with the cost of capital material helps students understand the important principle that the expectations of a firm's investors shape how the firm should approach major investment decisions (which are covered in Part 5). In other words, Part 4 helps students understand where a project "hurdle rate" comes from before they start using hurdle rates in capital budgeting problems. Updates to Chapter 8 include expanded coverage of the role that correlation plays in portfolio formation using data on JPMorgan, Morgan Stanley, and Medtronic. Chapter 9 now emphasizes finding the cost of debt by calculating a bond's YTM using a calculator or Excel rather than an algebraic approximation. Chapter 9 also has a new section that discusses when the WACC is the correct hurdle rate for investment analysis versus when it is not.

Part 5 contains three chapters on various capital budgeting topics. Chapter 10 focuses on capital budgeting methods such as payback and net present value analysis. New presentations in Chapter 10 include discounted payback period, project EVA for a finite-lived project, and modified internal rate of return (MIRR). Chapter 11 explains how financial analysts construct cash flow projections, and this edition includes a revised discussion of how to determine which cash flows are incremental and which are not, as well as expanded coverage of why analysts ignore financing cash flows such as interest expense when calculating an investment project's cash flows. Chapter 12 describes how firms analyze the risks associated with capital investments and make refinements to the capital budgeting process. In addition to new discussion of operating-leverage and its impact on project risk, much of the discussion in this chapter has been revised or expanded.

Part 6 deals with the topics of capital structure and payout policy. We revised Chapter 13 extensively so that it now follows a more contemporary format that, after introducing financial leverage and its effects, follows the seminal work of Modigliani and Miller before discussing roles of trade-off theory, agency theory, and signaling theory. Chapter 14 also includes expanded treatment of the Modigliani and Miller theory of payout policy and a new section that discusses recent criticisms of corporate share buybacks.

Part 7 contains two chapters centered on working capital issues. A major development in business has been the extent to which firms have found new ways to economize on working capital investments. The first chapter in Part 7 explains why and how firms work hard to squeeze resources from their investments in current assets such as cash and inventory. The second chapter in this part focuses more on management of current liabilities.

Finally, Part 8 has three chapters covering a variety of topics, including hybrid securities, mergers and other forms of restructurings, and international finance. These subjects are some of the most dynamic areas in financial practice, and we have made a number of changes here to reflect current practices. Chapter 17 contains new examples of convertible securities issued by firms such as Southwest Airlines and Tesla. Chapter 18 covers important merger concepts with examples featuring recent transactions involving Anthem-Cigna, Fiat-Chrysler, Dow-DuPont, Berkshire Hathaway-Dominion Energy Transmission, and Broadcom Ltd.-Maxlinear. Chapter 19 discusses the Regional Comprehensive Economic Partnership signed by China and 14 other countries in November 2020. The chapter adds new material on purchasing power and interest rate parity relationships that link exchange rate movements to differences in inflation and interest rates across countries.

Although the text content is sequential, instructors can assign almost any chapter as a self-contained unit, enabling instructors to customize the text to various teaching strategies and course lengths.

Like the previous editions, the sixteenth edition incorporates a proven learning system, which integrates pedagogy with concepts and practical applications. It concentrates on the knowledge that is needed to make keen financial decisions in an increasingly competitive business environment. The strong pedagogy and generous use of examples—many of which use real data from markets or companies—make the text an easily accessible resource for in-class learning or out-of-class learning, such as online courses and self-study programs.

SOLVING TEACHING AND LEARNING CHALLENGES

The desire to write *Principles of Managerial Finance* came from the experience of teaching the introductory managerial finance course. Those who have taught the introductory course many times can appreciate the difficulties that some students have absorbing and applying financial concepts. Students want a book that speaks to them in plain English and explains how to apply financial concepts to solve real-world problems. These students want more than just description; they also want demonstration of concepts, tools, and techniques. This book is written with the needs of students in mind, and it effectively delivers the resources that students need to succeed in the introductory finance course.

Courses and students have changed since the first edition of this book, but the goals of the text have not changed. The conversational tone and wide use of examples set off in the text still characterize *Principles of Managerial Finance*. Building on those strengths, sixteen editions, numerous translations, and well

over half a million U.S. users, *Principles* has evolved based on feedback from both instructors and students, from adopters, nonadopters, and practitioners. In this edition, we have worked to ensure that the book reflects contemporary thinking and pedagogy to further strengthen the delivery of the classic topics that our users have come to expect. Below are descriptions of the most important resources in *Principles* that help meet teaching and learning challenges.

Users of *Principles of Managerial Finance* have praised the effectiveness of the book's **Teaching and Learning System**, which they hail as one of its hallmarks. The system, driven by a set of carefully developed learning goals, has been retained and polished in this sixteenth edition. The “walkthrough” on the pages that follow illustrates and describes the key elements of the Teaching and Learning System. We encourage both students and instructors to acquaint themselves at the start of the semester with the many useful features the book offers.

CHAPTER 1

The Role of Managerial Finance

LEARNING GOALS

- LG 1** Define finance and the managerial finance function.
- LG 2** Describe some goals that financial managers pursue, and link achievement of those objectives to the general goal of maximizing the wealth of the firm's owners.
- LG 3** Identify the primary activities of the financial manager.
- LG 4** Explain the key principles that financial managers use when making business decisions.
- LG 5** Describe the legal forms of business organization.
- LG 6** Describe the nature of the principal-agent relationship between the owners and managers of a corporation, and explain how various corporate governance mechanisms attempt to manage agency problems.

WHY THIS CHAPTER MATTERS TO YOU

In your **professional life**

ACCOUNTING You need to understand the relationships between the accounting and finance functions within the firm, how decision makers rely on the financial statements you prepare, why maximizing a firm's value is not the same as maximizing its profits, and the ethical duty you have when reporting financial results to investors and other stakeholders.

INFORMATION SYSTEMS You need to understand why financial information is important to managers in all functional areas, the documentation that firms must produce to comply with various regulations, and how manipulating information for personal gain can get managers into serious trouble.

MANAGEMENT You need to understand the various legal forms of a business organization, how to communicate the goal of the firm to employees and other stakeholders, the advantages and disadvantages of the agency relationship between a firm's managers and its owners, and how compensation systems can align or misalign the interests of managers and investors.

MARKETING You need to understand why increasing a firm's revenues or market share is not always a good thing, how financial managers evaluate aspects of customer relations such as cash and credit management policies, and why a firm's brands are an important part of its value to investors.

OPERATIONS You need to understand the financial benefits of increasing a firm's production efficiency, why maximizing profit by cutting costs may not increase the firm's value, and how managers have a duty to act on behalf of investors when operating a corporation.

In your **personal life**

Many principles of managerial finance also apply to your personal life. Learning a few simple principles can help you manage your own money more effectively.

2

Six **Learning Goals** at the start of the chapter highlight the most important concepts and techniques in the chapter. Students are reminded to think about the learning goals while working through the chapter by strategically placed **learning goal icons**.

Every chapter opens with a feature, titled **Why This Chapter Matters to You**, that helps motivate student interest by highlighting both professional and personal benefits from achieving the chapter learning goals.

Its first part, **In Your Professional Life**, discusses the intersection of the finance topics covered in the chapter with the concerns of other major business disciplines. It encourages students majoring in accounting, information systems, management, marketing, and operations to appreciate how financial acumen will help them achieve their professional goals.

The second part, **In Your Personal Life**, identifies topics in the chapter that will have particular application to personal finance. This feature also helps students appreciate the tasks performed in a business setting by pointing out that the tasks are not necessarily different from those that are relevant in their personal lives.



WEWORK

WeWork's IPO Doesn't

As the coronavirus outbreak locked down much of the U.S. economy in March 2020, executives at Softbank, Japan's second largest company, were backing out of a deal. Three years earlier it had invested \$1.3 billion to buy an initial stake of 7.7% of the common stock of WeWork, a company that leased shared office space to high-tech startups. With its 2010 co-founder, Adam Neumann, serving as CEO, WeWork looked like one of the hottest startups in the market, growing its operations by 100% in 2015. WeWork's growth was funded by venture capital partnerships such as DAG in the U.S. and Aleph in Israel, investment banks such as J.P. Morgan Chase and Goldman Sachs, and even the Harvard University endowment. Collectively, this group invested nearly \$14 billion from 2009 to 2019, but no one invested more than Softbank. After an additional \$2 billion Softbank investment in January 2019, WeWork's estimated market value hit \$47 billion.

WeWork decided it was time to "go public" by conducting an initial public offering (IPO). As part of that process, the U.S. Securities and Exchange Commission requires companies seeking to do an IPO to disclose financials and other details about the business in a document called a prospectus. The August 2019 prospectus was a revelation, and not in a good way. The company had racked up huge losses, and Wall Street experts combing over the documents questioned whether the company could ever become profitable. Questions surfaced about Neumann's erratic and perhaps unethical behavior, such as charging the company \$5.9 million to license the name "We Company" from an entity that he personally controlled. Just a few weeks after filing the prospectus, WeWork announced that it would postpone its IPO, and by the end of the year the company's estimated value had dropped 83% to \$8 billion. In November WeWork laid off 2,400 workers, nearly 20% of its workforce.

Softbank had pledged to buy \$3 billion in stock from existing investors and employees, but a few months later, with office buildings empty due to the "shelter-in-place" orders in many states, WeWork's already precarious prospects dimmed. Softbank rescinded its promise to inject new funds into WeWork, claiming that ongoing S.E.C. investigations of WeWork gave it an "out" from its contractual obligations.¹

1. "Softbank Backs Away From Part of Planned 'WeWork Bailout,'" by Liz Hoffmann and Elise Brown, wej.com, March 18, 2020; "WeWork Funding Rounds, Valuations, and Investors," crain.co, April 11, 2020.

44

Each chapter begins with a short **opening vignette** that describes a recent real-company event related to the chapter topic. These stories raise interest in the chapter by demonstrating its relevance in the business world. Most of these opening vignettes are entirely new to this edition.

LG 1 LG 2

1.1 Finance and the Firm

The field of finance is broad and dynamic. Finance influences everything that firms do, from hiring personnel to building factories to launching new advertising campaigns. Because almost any aspect of business has important financial dimensions, many financially oriented careers await those who understand the principles of finance. Even if you see yourself pursuing a career in another discipline such as marketing, operations, accounting, supply chain, or human resources, you'll find that understanding a few crucial ideas in finance will enhance your professional success. Knowing how financial managers think is important, especially if you're not one yourself, because they are often the gatekeepers of corporate resources. Fluency in the language of finance will improve your ability to communicate the value of your ideas to your employer. Financial knowledge will also make you a smarter consumer and a wiser investor.

Learning goal icons tie chapter content to the learning goals and appear next to related text sections and again in the chapter-end summary, end-of-chapter problems, and exercises.

business ethics
Standards of conduct or moral judgment that apply to persons engaged in commerce.

THE ROLE OF BUSINESS ETHICS

Business ethics are standards of conduct or moral judgment that apply to persons engaged in commerce. Violations of these standards involve a variety of actions: "creative accounting," earnings management, misleading financial forecasts, insider trading, fraud, bribery, and kickbacks. The press has reported many such violations in recent years, involving such well-known companies as Facebook, which was hit with a record \$5 billion fine for mishandling users' information, and Volkswagen, where engineers set up elaborate deceptions to get around pollution controls. In these and similar cases, the offending companies suffered various penalties, including fines levied by government agencies, damages paid to plaintiffs in lawsuits, or lost revenues from customers who abandoned the firms because of their errant behavior. Most companies have

For help in study and review, boldfaced **key terms** and their definitions appear in the margin where they are first introduced. These terms are also boldfaced in the book's index and appear in the end-of-book glossary.

MATTER OF FACT

Consolidation in the U.S. Banking Industry

The U.S. banking industry has been going through a long period of consolidation. According to the Federal Deposit Insurance Corporation (FDIC), the number of commercial banks in the United States declined from 14,400 in early 1984 to 4,492 by October 2019, a decline of almost 69%. The decline is concentrated among small community banks, which larger institutions have been acquiring at a rapid pace.

Matter of Fact boxes provide interesting empirical facts, usually featuring recent data that add background and depth to the material covered in the chapter.

IRF

EXAMPLE 5.10

Timeline for present value of an ordinary annuity with \$700 end-of-year cash flows, discounted at 4%, over five years

Present Value \$3,240.93

2ND

[BGN]

2ND

[SET]

2ND

[P/Y]

1

[ENTER]

2ND

[QUIT]

5

[N]

4

[I/Y]

700

[PMT]

CPT

[PV]

-3,240.93

Calculator use Remember for annuity due calculations you must switch your calculator to beginning-of-period mode using the BGN function key, depending on your specific calculator. Then, using the inputs shown at the left, you can verify that the present value of the annuity due equals \$3,240.93. (Note: Don't forget to switch your financial calculator back to end-of-period payment mode.)

Spreadsheet use The following spreadsheet shows how to calculate the present value of the annuity due.

	A	B
1	PRESENT VALUE OF AN ANNUITY DUE	
2	Annual annuity payment	\$700
3	Annual rate of interest	4%
4	Number of years	5
5	Present value	-\$3,240.93

Entry in Cell B5 is =PV(B3,B4,B2,0,1).
The minus sign appears before the \$3,240.93 in B5 because the annuity's present value is a cost and therefore a cash outflow.

Examples are an important component of the book’s learning system. Numbered and clearly set off from the text, they provide an immediate and concrete demonstration of how to apply financial concepts, tools, and techniques. Many of these feature real-world data.

Examples illustrating time-value-of-money techniques often show the use of time lines, equations, financial calculators, and spreadsheets (with cell formulas). For instructors who prefer to use tables with interest rate factors, an IRF icon appearing with some examples indicates that the example can be solved using the interest rate factors.

IRF

PERSONAL FINANCE EXAMPLE 5.7

Fran Abrams wishes to determine how much money she will have after five years if she chooses annuity A, the ordinary annuity. She will deposit the \$1,000 annual payments that the annuity provides each year into a savings account paying 7% annual interest. The following timeline depicts the situation.

\$5,750.74 Future Value

The timeline shows after five years, Fran will have \$5,750.74 in her account. Note that because she makes deposits at the end of the year, the first deposit will

Personal Finance Examples demonstrate how students can apply managerial finance concepts, tools, and techniques to their personal financial decisions.

$$PV_0 = CF_1 \div r$$

(5.7)

Key Equations appear in green boxes throughout the text to help readers identify the most important mathematical relationships.

→ REVIEW QUESTIONS

- 5–10** What is the difference between an ordinary annuity and an annuity due? Which is more valuable? Why?
- 5–11** What are the most efficient ways to calculate the present value of an ordinary annuity?
- 5–12** How can the formula for the future value of an annuity be modified to find the future value of an annuity due?
- 5–13** How can the formula for the present value of an ordinary annuity be modified to find the present value of an annuity due?
- 5–14** What is a perpetuity? Why is the present value of a perpetuity equal to the annual cash payment divided by the interest rate? Why doesn't this chapter provide an equation showing you how to calculate the future value of a perpetuity?

→ EXCEL REVIEW QUESTIONS

- 5–15** Because tax time comes around every year, you smartly decide to make equal \$5,000 contributions to your IRA at the end of every year for 30 years. Assuming a 9.5% annual rate of return, use Excel to calculate the future value of your IRA contributions when you retire in 30 years.
- 5–16** Rather than making contributions to an IRA at the end of each year, you decide to make equal \$5,000 contributions at the beginning of each year for 30 years. Assuming a 9.5% annual rate of return, use Excel to solve for the future value of your IRA contributions when you retire.

Review Questions appear at the end of each major text section. These questions challenge readers to stop and test their understanding of key concepts, tools, techniques, and practices before moving on to the next section.

Some sections have dedicated **Excel Review Questions** that ask students to demonstrate their ability to solve a financial problem using Excel.

FOCUS ON ETHICS

The Cost of Capital Also Rises

Gertrude Stein—who shaped 20th-century art and literature through discussions in her 1920s Paris home with the likes of Pablo Picasso and Ernest Hemingway—famously wrote of Oakland, California, “There is no

millions of unauthorized accounts. When the dust settled, CEO John Stumpf was out, and the bank faced a \$185 million fine from the Consumer Financial Protection Bureau in addition to \$110 million in civil settlements with

debt. Going into 2016, Wells had not reported a loss in 45 years—a record in part traceable to emphasis on consumer financial products and services, which rank among the most steady business lines for commercial banks.

FOCUS ON PRACTICE

I-Bonds Adjust for Inflation

One disadvantage of bonds is that they usually offer a fixed interest rate. Once a bond is issued, its interest rate

in this index indicates that inflation has occurred. As the rate of inflation moves up and down, I-bond interest

occurs, the change in the CPI-U is negative, and the adjustable portion of an I-bond's interest also turns neg-

FOCUS ON GLOBAL FINANCE

An International Flavor to Diversification

Earlier in this chapter (see Table 8.5), we learned that from 1900 through 2019, the U.S. stock market produced an average annual nominal return of

risk can be a factor. Political risk is the risk that a government may take actions harmful to foreign investors or that political turmoil will endanger

returns on a portfolio that included U.S. stocks as well as stocks from 22 other countries. This diversified portfolio produced returns that were not

-rate
s and
ently,
nomin-
st 1.5%
e on an
no mat-
place. In

FOCUS ON PEOPLE/PLANET/PROFITS

Diverse Boards Borrow Less

Central to the WACC calculation are the capital structure weights, the percentages of debt and equity that make up a firm's total financing. A recent study found an interesting connection between the diversity of a firm's board of directors and its borrowing habits. Specifically, companies whose boards exhibited more diversity in terms of age, gender, ethnicity, and other characteristics of board members relied less heavily on debt compared to firms with less diverse boards. Because they borrowed less,

firms with more diverse boards were less risky in the sense that their stock returns were less volatile compared with their peers having fewer diverse board members. The study's authors suggested that a diversity in the boardroom leads to moderated group decision making, and indeed they found that corporate policies focused on investment decisions and branding were relatively stable over time. The same policies at companies with less diverse boards were prone to greater year-to-year changes.⁸

► Through his character Polonius, William Shakespeare offered financial advice in his classic play, *Hamlet*. “Neither a borrower nor a lender be” was an admonition against borrowing from or lending to a friend. Tables 9.1 and 9.3 show that not many firms follow this advice. Most use at least some debt in their capital structures. What are some of the pros and cons of using leverage?

Focus On... boxes offer insights into important topics in managerial finance through the experiences of real companies, both large and small. There are four categories of *Focus On...* boxes:

Focus on Ethics boxes in every chapter help readers understand and appreciate important ethical issues and problems related to managerial finance.

Focus on Practice boxes take a corporate focus that relates a business event or situation to a specific financial concept or technique.

Focus on Global Finance boxes look specifically at the managerial finance experiences of international companies.

Focus on People/Planet/Profits boxes highlight how firms' decisions and prices in financial markets reflect societal concerns about issues ranging from climate change to diversity and inclusion.

All four types of *Focus On...* boxes end with one or more *critical thinking questions* to help readers broaden the lesson from the content of the box.

SUMMARY

FOCUS ON VALUE

The time value of money is a tool that managers and investors use to compare cash inflows and outflows occurring at different times. Because firms routinely make investments that produce cash inflows over long periods, the effective application of time-value-of-money techniques is extremely important. These techniques allow managers to compare the costs of investments they make today

REVIEW OF LEARNING GOALS

LG 1 Discuss the role of time value in finance, the use of computational tools, and the basic patterns of cash flow. Financial managers and investors use time-value-of-money techniques when assessing the value of expected cash flow streams. Alternatives can be assessed by either compounding to find future value or discounting to find present value. Financial managers rely primarily on present-value techniques. Financial calculators and electronic spreadsheets

The end-of-chapter **Summary** consists of two sections. The first section, **Focus on Value**, explains how the chapter's content relates to the firm's goal of maximizing owner wealth. This feature helps reinforce understanding of the link between the financial manager's actions and share value.

The second part of the Summary, the **Review of Learning Goals**, restates each learning goal and summarizes the key material that was presented to support mastery of the goal. This review provides students with an opportunity to reconcile what they have learned with the learning goal and to confirm their understanding before moving forward.

OPENER-IN-REVIEW

The chapter opener described a lottery prize that could be taken as a \$477 million lump sum payment or a mixed stream of 30 payments, with the first payment of \$11.56 million coming immediately, followed by 29 additional payments at annual intervals growing at 5% per year. If the lottery winner could earn 2% on cash invested today, should he take the lump sum or the mixed stream? What if the rate of return is 3%? What general principle do those calculations illustrate?

SELF-TEST PROBLEMS

(Solutions in Appendix)

LG 2 LG 5
IRF

- STS-1** Future values for various compounding frequencies Delia Martin has \$10,000 that she can deposit in any of three savings accounts for a three-year period. Old Reliable Bank compounds interest on an annual basis, Third National Bank compounds interest twice each year, and Friendly Credit Union compounds interest each quarter. All three have a stated annual interest rate of 4%.
- What amount would Ms. Martin have after three years, leaving all interest paid on deposit, in each financial institution?
 - What effective annual rate (EAR) would she earn in each situation?
 - On the basis of your findings in parts a and b, which institution should Ms. Martin deal with? Why?
 - If American Bank, also with a 4% stated interest rate, compounds interest continuously, how much would Ms. Martin have after three years? Does this alternative change your recommendation in part c? Explain why or why not.

Opener-In-Review questions at the end of each chapter revisit the opening vignette and ask students to apply lessons from the chapter to that business situation.

Self-Test Problems, keyed to the learning goals, give readers an opportunity to strengthen their understanding of topics by doing a sample problem. For reinforcement, solutions to the Self-Test Problems appear in the appendix at the back of the book.

WARM-UP EXERCISES

LG 2


- E5-1** Assume that a firm makes a \$2,500 deposit into a short-term investment account. If this account is currently paying 0.7% (yes, that's right, less than 1%!), what will the account balance be after one year?

LG 2 LG 5

- E5-2** If Bob and Judy combine their savings of \$1,260 and \$975, respectively, and deposit this amount into an account that pays 2% annual interest, compounded monthly, what will the account balance be after four years?

Warm-Up Exercises follow the Self-Test Problems. These short, numerical exercises give students practice in applying tools and techniques presented in the chapter.

PROBLEMS

The  icon indicates auto-graded Excel projects available in MyLab Finance. Excel templates for end-of-chapter problems are also available in MyLab Finance.

LG 1

P5-1

Using a timeline The financial manager at Starbuck Industries is considering an investment that requires an initial outlay of \$25,000 and is expected to produce cash inflows of \$3,000 at the end of year 1, \$6,000 at the end of years 2 and 3, \$10,000 at the end of year 4, \$8,000 at the end of year 5, and \$7,000 at the end of year 6.

- Draw and label a timeline depicting the cash flows associated with Starbuck Industries' proposed investment.
- Use arrows to demonstrate, on the timeline in part a, how compounding to find future value can be used to measure all cash flows at the end of year 6.
- Use arrows to demonstrate, on the timeline in part b, how discounting to find present value can be used to measure all cash flows at time zero.
- Which of the approaches—future value or present value—do financial managers rely on most often for decision making?

LG 4

LG 6

P7-23

Integrative: Risk and valuation Given the following information for the stock of Foster Company, calculate the risk premium on its common stock.

Current price per share of common	\$50.00
Expected dividend per share next year	\$ 3.00
Constant annual dividend growth rate	6.5%
Risk-free rate of return	4.5%

LG 2

P5-6

Personal Finance Problem

Time value As part of your financial planning, you wish to purchase a new car five years from today. The car you wish to purchase costs \$14,000 today, and your research indicates that its price will increase by 2% to 4% per year over the next five years.

LG 6

P5-66

ETHICS PROBLEM Samantha Fong sold her home in San Francisco in 2020 for \$1.34 million, which was the median home price for that city. Samantha had lived in that house for 17 years, having purchased it from Michael Shoven in 2003 for \$711,000. What average annual rate of return did Samantha earn on her home, ignoring things such as property taxes and the costs of maintaining the home? Would you say that Samantha somehow “swindled” Michael? Would your answer to that question be influenced by the knowledge that over those 17 years, the average annual return on U.S. stocks was a little more than 10%?

SPREADSHEET EXERCISE



At the end of 2019, Uma Corporation is considering a major long-term project in an effort to remain competitive in its industry. The production and sales departments have determined the potential annual cash flow savings that could accrue to the firm if it acts soon. Specifically, they estimate that a mixed stream of future cash flow savings will occur at the end of the years 2020 through 2025. The years 2026 through 2030 will see consecutive \$90,000 cash flow savings at the end of each year. The firm estimates that its discount rate over the first six years will be 7%. The expected discount rate over the years 2026 through 2030 will be 11%.

Comprehensive Problems, keyed to the learning goals, are longer and more complex than the Warm-Up Exercises. In this section, instructors will find multiple problems that address the important concepts, tools, and techniques in the chapter.

A short descriptor identifies the essential concept or technique of the problem. Problems labeled as **Integrative** tie together related topics.

On MyLab Finance, students can find Excel templates that help them set up a structure for solving end-of-chapter problems. These templates not only help them get started on a problem, but they also provide examples of how to begin to set up basic Excel models.

Personal Finance Problems

specifically relate to personal finance situations and Personal Finance Examples in each chapter. These problems will help students see how they can apply the tools and techniques of managerial finance in managing their own finances.

Every chapter includes a **Spreadsheet Exercise**. This exercise gives students an opportunity to use Excel software to create one or more spreadsheets with which to analyze a financial problem. The spreadsheet to be created is often modeled on a table or Excel screenshot located in the chapter.

Integrative Case 2

Track Software Inc.

Seven years ago, after 15 years in public accounting, Stanley Booker, CPA, resigned his position as manager of cost systems for Davis, Cohen, and O'Brien Public Accountants and started Track Software Inc. In the two years preceding his departure from Davis, Cohen, and O'Brien, Stanley had spent nights and weekends developing a sophisticated cost-accounting software program that became Track's initial product offering. As the firm grew, Stanley planned to develop and expand the software product offerings, all of which would be related to streamlining the accounting processes of medium- to large-sized manufacturers.

Although Track experienced losses during its first two years of operation—2016 and 2017—its profit has increased steadily from 2018 to the year just ended (2022). The firm's profit history, including dividend payments and contributions to retained earnings, is summarized in Table 1.

Stanley started the firm with a \$100,000 investment: his savings of \$50,000 as equity and a \$50,000 long-term loan from the bank. He had hoped to maintain his initial 100% ownership in the corporation, but after experiencing a \$50,000 loss during the first year of operation (2016), he sold 60% of the stock to a group of investors to obtain needed funds. Since then, no other stock transactions have taken place. Although he owns only 40% of the firm, Stanley actively manages all aspects of its activities; the other stockholders are not active in its management. The firm's stock was valued at \$4.50 per share in 2021 and at \$5.28 per share in 2022.

An **Integrative Case** at the end of each part of the book challenges students to use what they have learned over the course of several chapters.

DEVELOPING EMPLOYABILITY SKILLS

For students to succeed in a rapidly changing job market, they should be aware of their career options and how to go about developing a variety of skills. We focus on developing these skills in a variety of ways.

Excel modeling skills—Each chapter contains a Spreadsheet Exercise that asks students to build an Excel model to help solve a business problem. Many chapters provide screenshots showing completed Excel models designed to solve in-chapter examples. Many chapters contain Excel Review Questions that prompt students to practice using Excel to solve specific types of problems. Excel templates are available on MyLab Finance that help students structure end-of-chapter problems so they can solve them in Excel.

Ethical reasoning skills—The *Focus on Ethics* boxes appearing in each chapter describe situations in which business professionals have violated ethical (and in some cases even legal) standards and have suffered consequences as a result. These boxes will help students recognize the ethical temptations they are likely to face while pursuing a finance career and the consequences that they may suffer if they behave unethically. Each chapter ends with an Ethics Problem that asks students to consider the ethical dimensions of some business decision.

Critical thinking skills—Nearly every significant financial decision requires critical thinking because making optimal decisions means weighing the marginal benefits and costs of alternative plans. To weigh those benefits and costs, one must first identify and quantify them. Nearly every chapter in this textbook discusses how financial analysts place a value on the net benefits associated with a particular decision. Students who master this material will be prepared to ask the tough questions necessary to assess whether a particular course of action creates value for shareholders.

Data analysis skills—Financial work is about data. Financial analysts have to identify the data that are relevant for a particular business problem, and they must know how to process that data in a way that leads to good decision making. In-chapter examples and end-of-chapter problems require students to sort out relevant from irrelevant data and to use the data that they have to make a clear recommendation about what course of action a firm should take.

TABLE OF CONTENTS OVERVIEW

The text's organization conceptually links the firm's actions and its value as determined in the financial market. We discuss every significant financial problem or decision in terms of both risk and return to assess the potential impact on owners' wealth. A Focus on Value element in each chapter's Summary helps reinforce the student's understanding of the link between the financial manager's actions and the firm's share value.

In organizing each chapter, we have adhered to a managerial decision-making perspective, relating decisions to the firm's overall goal of wealth maximization. Once a particular concept has been developed, its application is illustrated by an example, which is a hallmark feature of this book. These examples demonstrate, and solidify in the student's thought, financial decision-making considerations and their consequences.

Acknowledgments

TO OUR COLLEAGUES, FRIENDS, AND FAMILY

Pearson sought the advice of a great many excellent reviewers, all of whom influenced the revisions of this book. Our special thanks go to the following individuals who contributed to the manuscript in the current and previous editions:

Saul W. Adelman
M. Fall Ainina
Gary A. Anderson
Ronald F. Anderson
James M. Andre
Gene L. Andrusco
Antonio Apap
David A. Arbeit
Allen Arkins
Saul H. Auslander
Peter W. Bacon
Matt Baldwin
Richard E. Ball
Thomas Bankston
Alexander Barges
Charles Barngrover
Michael Becker
Rhoda Belemjian
Omar Benkato
Robert Benson
Scott Besley
Douglas S. Bible
Charles W. Blackwell
Alan Blaylock
Russell L. Block
Calvin M. Boardman
Paul Bolster
Robert J. Bondi
Jeffrey A. Born
Jerry D. Boswell
Denis O. Boudreaux
Kenneth J. Boudreaux
Thomas J. Boulton
Wayne Boyet
Ron Braswell
Christopher Brown
William Brunsen
Samuel B. Bulmash
Francis E. Canda

Omer Carey
Patrick A. Casabona
Johnny C. Chan
Robert Chatfield
K. C. Chen
Paul Chiou
Roger G. Clarke
Terrence M. Claurette
Mark Cockalingam
Kent Cofoid
Boyd D. Collier
Thomas Cook
Maurice P. Corrigan
Mike Cudd
Donnie L. Daniel
Prabir Datta
Joel J. Dauten
Lee E. Davis
Irv DeGraw
Richard F. DeMong
Peter A. DeVito
R. Gordon Dippel
James P. D'Mello
Carleton Donchess
Thomas W. Donohue
Lorna Dotts
Vincent R. Driscoll
Betty A. Driver
David R. Durst
Dwayne O. Eberhardt
Ronald L. Ehresman
Ted Ellis
F. Barney English
Hsing Fang
Greg Filbeck
Ross A. Flaherty
Rich Fortin
Timothy J. Gallagher
George W. Gallinger

Sharon Garrison
Gerald D. Gay
Deborah Giarusso
R. H. Gilmer
Anthony J. Giovino
Lawrence J. Gitman
Michael Giuliano
Philip W. Glasgo
Jeffrey W. Glazer
Joel Gold
Ron B. Goldfarb
Dennis W. Goodwin
David A. Gordon
J. Charles Granicz
C. Ramon Griffin
Reynolds Griffith
Arthur Guarino
Lewell F. Gunter
Melvin W. Harju
John E. Harper
Phil Harrington
George F. Harris
George T. Harris
John D. Harris
Mary Hartman
R. Stevenson Hawkey
Roger G. Hehman
Harvey Heinowitz
Glenn Henderson
Russell H. Hereth
Kathleen T. Hevert
J. Lawrence Hexter
Douglas A. Hibbert
Roger P. Hill
Linda C. Hittle
James Hoban
Hugh A. Hobson
Keith Howe
Kenneth M. Huggins

Jerry G. Hunt	John B. Mitchell	Mukunthan
Mahmood Islam	Daniel F. Mohan	Santhanakrishnan
James F. Jackson	Charles Mohundro	William L. Sartoris
Stanley Jacobs	Gene P. Morris	William Sawatski
Dale W. Janowsky	Edward A. Moses	Steven R. Scheff
Carolyn Jarmon	Tarun K. Mukherjee	Michael Schellenger
Jeannette R. Jesinger	William T. Murphy	Michael Schinski
Nalina Jeypalan	Randy Myers	Tom Schmidt
Jerry Johnson	Lance Nail	Carl J. Schwendiman
Timothy E. Johnson	Donald A. Nast	Carl Schweser
Roger Juchau	Vivian F. Nazar	Jim Scott
Ashok K. Kapoor	G. Newbould	John W. Settle
Daniel J. Kaufman Jr.	Charles Ngassam	Richard A. Shick
Joseph K. Kiely	Alvin Nishimoto	A. M. Sibley
Terrance E. Kingston	Gary Noreiko	Sandeep Singh
Raj K. Kohli	Dennis T. Officer	Surendra S. Singhvi
Thomas M. Krueger	Kathleen J. Oldfather	Stacy Sirmans
Lawrence Kryzanowski	Kathleen F. Oppenheimer	Barry D. Smith
Harry R. Kuniarsky	Richard M. Osborne	Gerald Smolen
William R. Lane	Jerome S. Osteryoung	Ira Smolowitz
Richard E. La Near	Prasad Padmanabahn	Jean Snavely
James Larsen	Roger R. Palmer	Joseph V. Stanford
Rick LeCompte	Don B. Pantan	John A. Stocker
B. E. Lee	John Park	William Stough
Scott Lee	Ronda S. Paul	Lester B. Strickler
Sharon Lee	Bruce C. Payne	Gordon M. Stringer
Suk Hun Lee	Gerald W. Perritt	Elizabeth Strock
Michael A. Lenarcic	Gladys E. Perry	Donald H. Stuhlman
A. Joseph Lerro	Stanley Piascik	Sankar Sundarajan
Yin Li	Gregory Pierce	Philip R. Swensen
Thomas J. Liesz	Mary L. Piotrowski	S. Tabriztchi
Hao Lin	D. Anthony Plath	John C. Talbott
Alan Lines	Jerry B. Poe	Gary Tallman
Larry Lynch	Gerald A. Pogue	Harry Tamule
Christopher K. Ma	Suzanne Polley	Richard W. Taylor
James C. Ma	Ronald S. Pretekin	Rolf K. Tedefalk
Dilip B. Madan	Fran Quinn	Richard Teweles
Judy Maese	Monika Rabarison	Kenneth J. Thygerson
James Mallet	Rich Ravichandran	Robert D. Tollen
Inayat Mangla	David Rayone	Emery A. Trahan
Bala Maniam	Walter J. Reinhart	Barry Uze
Timothy A. Manuel	Jack H. Reubens	Pieter A. Vandenberg
Brian Maris	Benedicte Reyes	Nikhil P. Varaiya
Daniel S. Marrone	William B. Riley Jr.	Oscar Varela
William H. Marsh	Hong Rim	Mark Vaughan
John F. Marshall	Ron Rizzuto	Kenneth J. Venuto
Linda J. Martin	Gayle A. Russell	Sam Veraldi
Stanley A. Martin	Patricia A. Ryan	James A. Verbrugge
Charles E. Maxwell	Murray Sabrin	Ronald P. Volpe
Timothy Hoyt McCaughey	Kanwal S. Sachedeva	John M. Wachowicz Jr.
Lee McClain	R. Daniel Sadlier	Faye (Hefei) Wang
Jay Meiselman	Hadi Salavitarab	William H. Weber III
Vincent A. Mercurio	Gary Sanger	Herbert Weinraub
Joseph Messina		Jonathan B. Welch

Grant J. Wells
Larry R. White
Peter Wichert
C. Don Wiggins
Howard A. Williams
Richard E. Williams
Glenn A. Wilt Jr.

Bernard J. Winger
Tony R. Winger
Alan Wolk
I. R. Woods
John C. Woods
Robert J. Wright
Richard H. Yanow

Seung J. Yoon
Charles W. Young
Philip J. Young
Joe W. Zeman
John Zietlow
J. Kenton Zumwalt
Tom Zwirlein

A hearty round of applause also goes to the publishing team assembled by Pearson—including Emily Biberger, Olutosin Aje-Adegbite, Meredith Gertz, Melissa Honig, Miguel Leonarte, Gina Linko, and others who worked on the book—for the inspiration and the perspiration that define teamwork. Also, special thanks to the formidable Pearson sales force in finance, whose ongoing efforts keep the business fun!

Finally, and most important, many thanks to our families for patiently providing support, understanding, and good humor throughout the revision process. To them we will be forever grateful.

Chad J. Zutter

Pittsburgh, Pennsylvania

Scott B. Smart

Bloomington, Indiana

This page is intentionally left blank

Introduction to Managerial Finance

CHAPTERS IN THIS PART

- 1 The Role of Managerial Finance
- 2 The Financial Market Environment

INTEGRATIVE CASE 1 Merit Enterprise Corp.

In Part 1 of *Principles of Managerial Finance*, we discuss the role of financial managers in businesses and the financial market environment in which firms operate. We outline the goals managers pursue, the decisions they make in pursuit of those goals, and the financial principles that guide those decisions. A key principle guiding managers is to take actions that benefit the firm's owners, the shareholders. Financial managers accomplish that by making operating and investment decisions expected to generate greater benefits than costs. Such decisions create wealth for shareholders, which is important because firms have to compete for the funds necessary to finance the production of goods and services. In other words, firms need money to spend on everyday operating expenses as well as on major projects like building new facilities or conducting research and development. Funds flow from investors to firms through the financial markets. Those markets offer many different choices to investors who are looking for places to invest their money with the expectation of increasing their wealth. Managers must deliver value to investors to persuade them to provide the funding firms need to thrive.

The Role of Managerial Finance

LEARNING GOALS

- LG 1** Define finance and the managerial finance function.
- LG 2** Describe some goals that financial managers pursue, and link achievement of those objectives to the general goal of maximizing the wealth of the firm's owners.
- LG 3** Identify the primary activities of the financial manager.
- LG 4** Explain the key principles that financial managers use when making business decisions.
- LG 5** Describe the legal forms of business organization.
- LG 6** Describe the nature of the principal–agent relationship between the owners and managers of a corporation, and explain how various corporate governance mechanisms attempt to manage agency problems.

WHY THIS CHAPTER MATTERS TO YOU

In your *professional* life

ACCOUNTING You need to understand the relationships between the accounting and finance functions within the firm, how decision makers rely on the financial statements you prepare, why maximizing a firm's value is not the same as maximizing its profits, and the ethical duty you have when reporting financial results to investors and other stakeholders.

INFORMATION SYSTEMS You need to understand why financial information is important to managers in all functional areas, the documentation that firms must produce to comply with various regulations, and how manipulating information for personal gain can get managers into serious trouble.

MANAGEMENT You need to understand the various legal forms of a business organization, how to communicate the goal of the firm to employees and other stakeholders, the advantages and disadvantages of the agency relationship between a firm's managers and its owners, and how compensation systems can align or misalign the interests of managers and investors.

MARKETING You need to understand why increasing a firm's revenues or market share is not always a good thing, how financial managers evaluate aspects of customer relations such as cash and credit management policies, and why a firm's brands are an important part of its value to investors.

OPERATIONS You need to understand the financial benefits of increasing a firm's production efficiency, why maximizing profit by cutting costs may not increase the firm's value, and how managers have a duty to act on behalf of investors when operating a corporation.

In your *personal* life

Many principles of managerial finance also apply to your personal life. Learning a few simple principles can help you manage your own money more effectively.

BROOKDALE SENIOR LIVING

Is Brookdale's Management about to Be Retired?

Recent years have been tough for Brookdale Senior Living Inc., an operator of senior living facilities throughout the United States. From 2015 to 2019 its common stock lost 80% of its value while the broader market rose by 57%, so Brookdale's poor performance was especially irritating to its investors. Expressing frustration at Brookdale's lackluster performance, one of its largest shareholders, an activist investing firm called Land and Buildings, issued a series of public letters to management and other shareholders demanding change. Land and Buildings called for Brookdale's management team to sell the physical real estate the company owned, distribute the proceeds from those sales directly to Brookdale shareholders, and sign contracts with the new property owners to manage the senior living facilities. Land and Buildings estimated that Brookdale could sell its real estate assets for as much as \$21 per share. In other words, they were arguing that Brookdale's assets would be more valuable under someone else's control.

Change was not forthcoming. Brookdale's management resisted selling its real-estate assets, which prompted Land and Buildings to fire off another public letter to shareholders, proposing, among other actions, that Brookdale fire two of its existing board members and replace them with directors with healthcare expertise and experience in managing real-estate portfolios. That was followed in July 2019 by a third Land and Buildings public missive, which cited Brookdale's persistently underperforming stock and complained of a "lack of urgency" on the part of senior management to "maximize value for all shareholders." Brookdale management responded by noting that its board had been significantly refreshed and that it had implemented other suggestions made by its activist shareholder. The stock managed an 8.5% gain for 2019, and tensions between the company and its investors eased temporarily, until the COVID-19 epidemic hit and contributed to a 67% drop in Brookdale's stock.

The recent saga of Brookdale Senior Living illustrates several key ideas in finance. First, Brookdale's shareholders believe that management has a responsibility to operate the firm in a manner that maximizes the value of the company's stock. Second, the actions of Brookdale's management team seem to be at odds with what is desired by at least some of the firm's shareholders. Third, when a firm's financial performance remains subpar for an extended period, investors and other outside entities may try to reverse that trend by intervening, even if that calls for buying the company to wrest control from the existing management team.¹



Kristoffer Tripplaar/Alamy Stock Photo

1. "Land and Buildings issues letter to Brookdale Senior Living shareholders highlighting path to real estate monetization and maximizing shareholder value," [Businesswire.com](https://www.businesswire.com), December 20, 2016; "Activist shareholder pushes Brookdale to deliver on rumored deal," [Seniorhousingnews.com](https://www.seniorhousingnews.com), January 16, 2017; "Activist Brookdale Investor Withdraws Flaherty Board Nomination," [seniorhousingnews.com](https://www.seniorhousingnews.com), October 8, 2019.

LG 1 LG 2

1.1 Finance and the Firm

The field of finance is broad and dynamic. Finance influences everything that firms do, from hiring personnel to building factories to launching new advertising campaigns. Because almost any aspect of business has important financial dimensions, many financially oriented careers await those who understand the principles of finance. Even if you see yourself pursuing a career in another discipline such as marketing, operations, accounting, supply chain, or human resources, you'll find that understanding a few crucial ideas in finance will enhance your professional success. Knowing how financial managers think is important, especially if you're not one yourself, because they are often the gatekeepers of corporate resources. Fluency in the language of finance will improve your ability to communicate the value of your ideas to your employer. Financial knowledge will also make you a smarter consumer and a wiser investor.

WHAT IS FINANCE?

finance

The science and art of how individuals and firms raise, allocate, and invest money.

managerial finance

Concerns the duties of the financial manager in a business.

Finance is the science and art of how individuals and firms raise, allocate, and invest money. The science of finance utilizes theories and concepts to establish general rules that can guide managers' decisions. The art of finance involves adapting theory to particular business situations with unique circumstances. **Managerial finance** is concerned with the responsibilities of a financial manager working in a business. Though business finance is the primary focus here, the principles of finance apply to both personal and professional decisions. At the personal level, for instance, finance helps individuals decide how much of their earnings to spend, how much to save, and how to invest their savings. Financial thinking helps consumers decide when borrowing money is appropriate and enables them to critically evaluate loan offers with different terms. In a business context, finance involves similar decisions: how firms raise money from investors, how they invest money to create value for their investors, and how they decide whether to reinvest earnings in the business or distribute them back to investors. The keys to good financial decisions are much the same for businesses and individuals, which is why most students will benefit from an understanding of finance regardless of their profession. Learning

MATTER OF FACT

Finance Professors Aren't Like Everyone Else

Financial advisors know that many people are willing to invest in the stock market if it has been rising and are reluctant to do so if it has been falling. Such "trend-chasing" behavior often leaves investors worse off than if they had invested consistently over time. Finance theory suggests that past performance of the stock market is a very poor predictor of future performance, and therefore individuals should not base investment decisions on the market's recent history. A survey found that at least one group of investors did not fall prey to trend chasing. When deciding whether to invest in stocks, finance professors were not influenced by the market's recent trend, presumably because they know that past performance does not predict the future. That's just one of the lessons in this book that can help you make better choices with your own money.²

2. Hibbert, Lawrence, and Prakash, 2012, "Do finance professors invest like everyone else?" *Financial Analysts Journal*.

the techniques of good financial analysis will not only help you make better financial decisions as a consumer but will also help you understand the consequences of important business decisions, no matter what career path you follow.

WHAT IS A FIRM?

What is a firm? Put simply, a firm is a business organization that sells goods or services. However, a more complete answer attempts to explain why firms exist. They exist because investors want access to risky investment opportunities. In other words, firms are risky business organizations that, if not for investors' willingness to bear risk, would have difficulty generating the necessary funds to operate. For example, most investors do not have the expertise or wealth required to start a high-tech company, so instead they invest in a company like Apple. Even though just a few individuals founded Apple in 1976, millions of investors poured vast amounts of additional money (i.e., investment capital) into the company to make it what it is today. So, ultimately, firms are intermediaries that bring together investors and risky investment opportunities. Firms pool investment capital, make risky investment decisions, and manage risky investments all on behalf of investors who would otherwise not be able to do so effectively or efficiently on their own.

WHAT IS THE GOAL OF THE FIRM?

What goal should managers pursue? This question has no shortage of possible answers. Some might argue that managers should focus entirely on satisfying customers. Firms pursuing this goal could measure their products' market shares to gauge progress. Others suggest that managers must first inspire and motivate employees; in that case, employee turnover might be the key success metric to watch. Clearly, the goal or goals that managers select will affect many of the decisions they make, so choosing an objective is a critical determinant of how businesses operate.

Maximize Shareholder Wealth

Finance teaches that the primary goal of managers should be to maximize the wealth of the firm's owners—the stockholders or shareholders. Through the years, that recommendation has generated a lot of controversy. *The Economist* magazine once referred to shareholder value maximization as “the most powerful idea in business,” and Berkshire Hathaway CEO Warren Buffett has been a long-time proponent of the need for managers to put shareholders' interests first. In contrast, Jack Welch, the former Chief Executive Officer (CEO) of General Electric and a man *Fortune* magazine named “Manager of the Century,” once called maximizing shareholder value “the dumbest idea in the world.” Welch's assessment is particularly ironic because during his leadership, almost no company generated more wealth for its shareholders than General Electric. A \$1,000 investment in GE stock made in 1981 when Welch took the reins as CEO would have grown to roughly \$67,000 by the time he retired in 2001. The simplest and best measure of stockholder wealth is the share price, so most finance textbooks (including ours) instruct managers to take actions that increase the firm's share price.

A common misconception is that when firms strive to make their shareholders happy, they do so at the expense of other constituencies such as customers, employees, or suppliers. This line of thinking ignores that a firm's relationships

with its broader stakeholders are valuable to shareholders, and in most cases, enriching shareholders requires managers to first satisfy the demands of other stakeholders. Dividends ultimately received by stockholders come from the firm's profits. It is unlikely, then, that a firm whose customers are unhappy with its products or services, whose employees are looking for jobs at other firms, whose suppliers are reluctant to ship raw materials, or whose creditors have cut it off will make shareholders rich because such a firm will likely be less profitable in the long run than one that better manages its relations with these stakeholder groups. In other words, competition forces managers who want to make shareholders wealthier to also address the concerns of other stakeholders. Firms compete with each other for customers, employees, suppliers, and creditors, so ignoring the interests of other stakeholders is not likely to create value for shareholders.

Therefore, we argue that the goal of the firm and its managers should be *to maximize the wealth of the owners*, which in most instances is equivalent to *maximizing the stock price*. This goal translates into a straightforward decision

FOCUS ON ETHICS

Do Corporate Executives Have a Social Responsibility?

In a corporation, shareholders rely on management to oversee day-to-day operations. In this relationship, stockholders are principals and management their agents. Accordingly, the first duty of a corporation's management team is to maximize shareholder wealth. What role should social responsibility—consideration of broader societal goals like slowing climate change—play in corporate decisions?

Fifty years ago, in a famous *New York Times* essay, Milton Friedman (winner of the 1976 Nobel Memorial Prize in Economic Sciences) argued corporate executives have no social responsibility beyond conforming to the basic rules of society. Their sole aim should be serving the pecuniary interests of their employers, the shareholders (subject, of course, to the constraints of the law). When executives use corporate resources to pursue other ends, they are spending someone else's money. Because it is practically impossible to guess exactly how individual shareholders would like to see their money spent to better the world—which specific

social goals to pursue and how much to spend on each—management should focus exclusively on maximizing shareholder wealth and let shareholders use the proceeds to address social concerns on their own.

Friedman would acknowledge an exception to this doctrine. If use of corporate resources to pursue a social goal actually does more for stockholders financially than any alternative project (such as investment in a marketing campaign or new factories), then social responsibility is consistent with maximizing shareholder wealth. This may have been a consideration when Exxon Mobil—the world's largest publicly traded international oil and gas company—published its position on climate change:

We have the same concerns as people everywhere—and that is how to provide the world with the energy it needs while reducing greenhouse gas emissions.

The risk of climate change is clear and the risk warrants action.

Increasing carbon emissions in the atmosphere are having a warming effect. There is a broad scientific and policy consensus that action must be taken to further quantify and assess the risks.

ExxonMobil is taking action by reducing greenhouse gas emissions in its operations, helping consumers reduce their emissions, supporting research that leads to technology breakthroughs and participating in constructive dialogue on policy options.

Addressing climate change, providing economic opportunity and lifting billions out of poverty are complex and interrelated issues requiring complex solutions. There is a consensus that comprehensive strategies are needed to respond to these risks.³

► How would Friedman view a sole proprietor's use of firm resources to pursue social goals?

3. Friedman, Milton, "A Friedman Doctrine—The Social Responsibility of Business Is to Increase Its Profits." *New York Times Magazine*, September 13, 1970, pp. 33, 122–26; Leube, Kurt R., *Essence of Friedman*. Stanford, CA: Hoover Institution Press, 1987; Exxon Mobil's Perspective on Climate Change: <http://corporate.exxonmobil.com/en/current-issues/climate-policy/climate-perspectives/our-position>

rule: *Managers should take only actions that they expect will increase the shareholders' wealth.* Although that objective sounds simple, its implementation is not always easy. To determine whether a particular course of action will increase or decrease shareholders' wealth, managers have to assess what return (i.e., cash inflows net of cash outflows) and risk (i.e., the uncertainty of the net cash flows) the action will bring. How managers do that is the focus of this book.

MATTER OF FACT

Firms Accelerate Dividends So That Shareholders Save on Taxes

One way that firms can maximize the wealth of shareholders is by thinking carefully about the taxes their shareholders must pay on dividends. In 2003, Congress lowered the tax rate on most dividends paid to shareholders to 15%. However, the legislation contained a provision by which the tax cuts would expire in 2013 unless Congress acted to renew them. With a political compromise to renew the tax cuts looking unlikely in the 2012 election year, many firms announced plans to accelerate dividend payments they had planned to make in early 2013 to late 2012. The Washington Post Company, for example, announced that in December 2012, it would pay out the entire \$9.80 per share dividend that it had planned to distribute in 2013. The stock market approved, as Washington Post shares rose \$5. By accelerating their dividend payments, companies such as Washington Post, Expedia, Inc., and luxury goods producer Coach, Inc., were increasing the wealth of their shareholders by helping them save taxes.

earnings per share (EPS)

The amount earned during the period on behalf of each outstanding share of stock, calculated by dividing the period's total earnings available for the firm's stockholders by the number of shares of stock outstanding.

Maximize Profit?

It might seem intuitive that maximizing a firm's share price is equivalent to maximizing its profits. That thought is not always correct, however.

Corporations commonly measure profits in terms of **earnings per share (EPS)**, which represent the amount earned during the period on behalf of each outstanding share of stock. Accountants calculate EPS by dividing the period's total earnings available for the firm's stockholders by the number of shares of stock outstanding.

EXAMPLE 1.1

Nick Dukakis, the financial manager of Neptune Manufacturing, a producer of marine engine components, is choosing between two investments, Rotor and Valve. The following table shows the EPS Dukakis expects each investment to earn over its three-year life.

Investment	Earnings per share (EPS)			
	Year 1	Year 2	Year 3	Total for years 1, 2, and 3
Rotor	\$1.40	\$1.00	\$0.40	\$2.80
Valve	0.60	1.00	1.40	3.00

If Dukakis thought he should make decisions to maximize profits, he would recommend that Neptune invest in Valve rather than Rotor because it results in higher total earnings per share over the three-year period (\$3.00 EPS compared with \$2.80 EPS).

Does profit maximization lead to the highest share price? For at least three reasons, the answer is often no. First, timing matters. An investment that provides a small profit quickly may be preferable to one that produces a larger profit in the distant future. Second, profits and cash flows are not identical. Profit is simply an estimate of how a firm is doing, an estimate influenced by many different accounting choices made by firms when assembling their financial reports. Cash flow is a more straightforward measure of the money flowing into and out of the company than is profit. Companies must pay their bills with cash, not profits, so cash flow matters most to financial managers and investors. Third, risk is a major consideration. A firm that earns a low but reliable profit might be more valuable than another firm with profits that fluctuate a great deal (and therefore can be very high or very low at different times).

Timing Other things held constant, it is better to receive cash earlier than later because a firm can invest money it has today to earn more money for the future. In our example, even though the total earnings from Rotor are smaller than those from Valve, Rotor provides much greater earnings in the first year. It's possible that by investing in Rotor, Neptune Manufacturing can reinvest the first year's earnings to generate higher profits overall than if it had invested in project Valve. If the rate of return Neptune can earn on reinvested earnings is high enough, managers may do better to invest in project Rotor even though project Valve generates higher profits over the three years.

Cash Flows Profits do not necessarily result in cash flows available to stockholders. The accounting assumptions and techniques that a firm adopts may allow it to show a positive profit even when its cash outflows exceed cash inflows. Sometimes this is just a matter of timing. For instance, suppose a retail electronics store buys a laptop from a supplier in December for \$1,000 and sells it a few days later for \$1,500. The profit on this transaction for the month of December is \$500, but what is the cash flow? If the retailer pays its supplier \$1,000 in December but allows its customer to pay for the laptop a month later in January, then the retailer actually has a net cash outflow in December.

Cash flow can also be negative, even when profit is positive, if a firm is making big new investments. For example, in 2019 Exxon Mobil reported a profit of nearly \$15 billion, but its cash flow for the year was negative because it invested more than \$24 billion to expand operations. The money invested in new plant and equipment does not all count as an expense against profit in the year it is spent because Exxon Mobil will generate revenue from that spending for many years. Thus, the company looked profitable even though it spent more cash than it brought in.

For these and other reasons, higher earnings do not necessarily produce a higher stock price. Earnings increases that signal increases in future cash flows produce higher stock prices. For example, a firm could increase its earnings this period by reducing its maintenance expenditures. If that results in lower future product quality, however, the firm may impair its competitive position, and its stock price could drop as investors anticipate lower future cash flows. Increasing earnings today by sacrificing cash flow tomorrow may lead to a lower stock price.

risk

The chance that actual outcomes may differ from those expected.

Risk Profit maximization also fails to account for **risk**, the chance that actual outcomes may differ from those expected. A basic premise in finance is that a tradeoff exists between return and risk. In general, stockholders are *risk averse*, which means they are willing to bear risk only if they expect compensation for doing so. In other words, investors demand higher returns on riskier investments, and they will accept lower returns on relatively safe investments. What this signifies in terms of the goal of the firm is that maximizing profits may not maximize the stock price. Suppose one firm is slightly more profitable than another but operates in a much riskier industry. Investors may well be willing to pay a higher price for the stock of the firm that produces lower but more predictable profits.

Putting these last two ideas together, we can say that cash flow and risk affect share price differently. Holding risk fixed, investors will pay more for the stock of a firm that generates higher cash flows (i.e., higher returns). In contrast, holding cash flow fixed, investors will pay more for shares that are less risky because they do not like risk.

Maximize Stakeholders' Welfare?

Critics of the view that managers should maximize shareholders' wealth have advanced an alternative goal advocating a balanced consideration of the welfare of shareholders and other stakeholders. **Stakeholders** are individuals who are not owners of the firm but who nevertheless have some economic interest in it. Stakeholders include employees, suppliers, customers, and even members of the community where a firm is located. Those who argue that firms should focus on stakeholders' interests maintain that shareholder value maximization as a business objective is far too narrow. This stakeholder view is widely held and indeed is reflected in the corporate law of countries such as Germany, France, and Japan, whereas the shareholder primacy is more common in the United States and the United Kingdom.

We see a number of flaws in recommending that firms neglect shareholders' interests in favor of a broader stakeholder perspective. First, as we have already pointed out, maximizing shareholder wealth does not in any way imply that managers should ignore the interests of everyone else connected to a firm. Managers cannot maximize the value of a firm if their employees, customers, and suppliers are constantly dissatisfied—usually those stakeholders are free to do business with other firms. A recent study found that when firms were added to *Fortune* magazine's list of the best companies to work for (presumably a sign of labor-friendly practices), their stock prices jumped.⁴ This evidence led the study's authors to conclude that the benefits of labor-friendly practices outweigh the costs. Apparently, what is good for employees is also good for shareholders.

Second, proponents of the stakeholder perspective often argue that in pursuit of maximizing shareholder value, managers take actions that push up the stock price in the short run to the detriment of the firm's long-run performance. In fact, to maximize shareholder value, managers must necessarily assess the long-term consequences of their actions because investors will certainly do so.

stakeholders

Groups such as employees, customers, suppliers, creditors, and others who have a direct economic link to the firm but are not owners.

4. Olubunmi Faleye and Emery Trahan, "Labor-friendly corporate practices: Is what is good for employees good for shareholders?" *Journal of Investing*, June 2011.

To illustrate, consider that in 2019, Netflix reported earnings per share (EPS) for the year of \$4.13, and over the same period Yum! Brands (operator of fast-food brands such as KFC and Taco Bell) reported an almost identical \$4.14 EPS. Yet the stock prices of these two companies could not have been more different. In early 2020, when both companies announced their 2019 results, Netflix stock was trading for roughly \$375 per share, whereas a share of Yum! Brands stock was worth about \$100. In other words, investors were willing to pay almost four times more for shares of Netflix even though it reported virtually the same EPS as Yum! Why? Several factors may contribute, but the most plausible answer is that investors envision rosier long-term prospects for Netflix. If the only matter of concern to investors was short-term profits, then the prices of Netflix and Yum! should have been much closer because their profits, at least in the short term, were nearly identical.

Third, the stakeholder perspective is intrinsically difficult to implement, and advocates of the idea that managers should consider all stakeholders' interests do not typically indicate how managers should carry it out. For example, how much emphasis should managers place on the interests of different stakeholder groups? Are the interests of employees more or less important than the desires of customers? Should members of the local community who do no business with the firm have an equal say with the firm's suppliers or creditors? When different stakeholder groups disagree on the action a firm should take, how should managers make important decisions? In contrast, the goal of shareholder maximization clarifies what actions managers should take.

Fourth, many people misinterpret the statement that managers should maximize shareholder wealth as implying that managers should take any action, including illegal or unethical actions, that increases the stock price. Even the most ardent supporters of shareholder value maximization as the firm's primary goal acknowledge that managers must act within ethical and legal boundaries.

THE ROLE OF BUSINESS ETHICS

business ethics

Standards of conduct or moral judgment that apply to persons engaged in commerce.

Business ethics are standards of conduct or moral judgment that apply to persons engaged in commerce. Violations of these standards involve a variety of actions: "creative accounting," earnings management, misleading financial forecasts, insider trading, fraud, bribery, and kickbacks. The press has reported many such violations in recent years, involving such well-known companies as Facebook, which was hit with a record \$5 billion fine for mishandling users' information, and Volkswagen, where engineers set up elaborate deceptions to get around pollution controls. In these and similar cases, the offending companies suffered various penalties, including fines levied by government agencies, damages paid to plaintiffs in lawsuits, or lost revenues from customers who abandoned the firms because of their errant behavior. Most companies have adopted formal ethical standards, although adherence to and enforcement of those standards vary. The goal of such standards is to motivate business and market participants to abide by both the letter and the spirit of laws and regulations concerned with business and professional practice. Most business leaders believe that businesses actually strengthen their competitive positions by maintaining high ethical standards.