

Basic Finance

An Introduction to Financial Institutions,
Investments, and Management

HERBERT B. MAYO



BASIC FINANCE

**An Introduction to Financial
Institutions, Investments,
and Management**



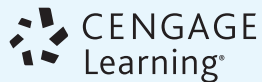
BASIC FINANCE

An Introduction to Financial Institutions, Investments, and Management

ELEVENTH EDITION

HERBERT B. MAYO

The College of New Jersey



Australia • Brazil • Mexico • Singapore • United Kingdom • United States

This is an electronic version of the print textbook. Due to electronic rights restrictions, some third party content may be suppressed. Editorial review has deemed that any suppressed content does not materially affect the overall learning experience. The publisher reserves the right to remove content from this title at any time if subsequent rights restrictions require it. For valuable information on pricing, previous editions, changes to current editions, and alternate formats, please visit www.cengage.com/highered to search by ISBN#, author, title, or keyword for materials in your areas of interest.

Important Notice: Media content referenced within the product description or the product text may not be available in the eBook version.

**Basic Finance: An Introduction to
Financial Institutions, Investments,
and Management, 11e**
Herbert Mayo

Vice President, General Manager,
Science, Math & Quantitative Business:
Balraj Kalsi

Product Director: Joe Sabatino

Content Developer: Theodore Knight

Senior Product Assistant: Adele Scholtz

Marketing Director: Natalie King

Marketing Manager: Heather Mooney

Sr. Marketing Coordinator: Eileen
Corcoran

Art and Cover Direction, Production
Management, and Composition:
Lumina Datamatics, Inc.

Managing Media Developer: Scott Fidler
Intellectual Property

Analyst: Christina Ciaramella

Project Manager: Anne Sheroff

Manufacturing Planner: Kevin Kluck

Cover Image: © sebastian-julian/Vetta/
Getty Images

© 2016, 2012 Cengage Learning

WCN: 02-200-203

ALL RIGHTS RESERVED. No part of this work covered by the copyright herein may be reproduced, transmitted, stored, or used in any form or by any means graphic, electronic, or mechanical, including but not limited to photocopying, recording, scanning, digitizing, taping, web distribution, information networks, or information storage and retrieval systems, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without the prior written permission of the publisher.

For product information and technology assistance, contact us at
Cengage Learning Customer & Sales Support, 1-800-354-9706

For permission to use material from this text or product, submit all
requests online at www.cengage.com/permissions

Further permissions questions can be emailed to
permissionrequest@cengage.com

Library of Congress Control Number: 2014952097

Student Edition ISBN: 978-1-285-42579-5

Cengage Learning

20 Channel Center Street
Boston, MA 02210
USA

Unless otherwise noted, all items ©Cengage Learning.

Cengage Learning is a leading provider of customized learning solutions with office locations around the globe, including Singapore, the United Kingdom, Australia, Mexico, Brazil, and Japan. Locate your local office at: www.cengage.com/global

Cengage Learning products are represented in Canada by
Nelson Education, Ltd.

To learn more about Cengage Learning Solutions, visit
www.cengage.com

Purchase any of our products at your local college store or at our preferred online store www.cengagebrain.com

In memory of stella



BRIEF CONTENTS

Preface xxiv

	1	An Introduction to Basic Finance	1
PART 1		FINANCIAL INSTITUTIONS	12
	2	The Role of Financial Markets and Financial Intermediaries	14
	3	Investment Banking	35
	4	Securities Markets	47
	5	The Federal Reserve	63
	6	International Currency Flows	84
PART 2		FINANCIAL TOOLS	98
	7	The Time Value of Money	100
	8	Risk and Its Measurement	135
	9	Analysis of Financial Statements	166
PART 3		INVESTMENTS	218
	10	The Features of Stock	220
	11	Stock Valuation	247
	12	The Features of Long-Term Debt—Bonds	267
	13	Bond Pricing and Yields	284
	14	Preferred Stock	300
	15	Convertible Securities	311
	16	Investment Returns	331
	17	Investment Companies	340

PART 4	CORPORATE FINANCE	362
18	Forms of Business and Corporate Taxation	364
19	Break-Even Analysis and the Payback Period	376
20	Leverage	388
21	Cost of Capital	407
22	Capital Budgeting	435
23	Forecasting	479
24	Cash Budgeting	512
25	Management of Current Assets	526
26	Management of Short-Term Liabilities	566
27	Intermediate-Term Debt and Leasing	591
PART 5	DERIVATIVES	608
28	Options: Puts and Calls	610
29	Futures and Swaps	633
Appendix A	Interest Factors for the Future Value of One Dollar	653
Appendix B	Interest Factors for the Present Value of One Dollar	655
Appendix C	Interest Factors for the Future Value of an Annuity of One Dollar	657
Appendix D	Interest Factors for the Present Value of an Annuity of One Dollar	659
Appendix E	Using Excel to Solve Financial Problems	661
Appendix F	Answers to Selected Problems	684
	Index	693

Preface xxiv

Chapter 1 An Introduction to Basic Finance 1

- 1.1 The Divisions of Finance 2
- 1.2 Key Financial Concepts 3
 - 1.2a Sources of Finance 3
 - 1.2b Risk and Return 4
 - 1.2c Financial Leverage 5
 - 1.2d Valuation 6
- 1.3 Assumptions 7
- 1.4 Finance and Other Business Disciplines 7
- 1.5 Plan of the Text 9
- 1.6 Relationships 10

PART 1 FINANCIAL INSTITUTIONS 12

Chapter 2 The Role of Financial Markets and Financial Intermediaries 14

- 2.1 The Role of Money 15
 - 2.1a Measures of the Supply of Money 16
- 2.2 The Role of Interest Rates 17
 - 2.2a The Term Structure of Interest Rates 18
- 2.3 Financial Markets and the Transfer of Savings 20
- 2.4 The Indirect Transfer Through Financial Intermediaries 21
- 2.5 Commercial Banks 22
- 2.6 Thrift Institutions 24
- 2.7 Regulation of Commercial Banks and Thrift Institutions 24
 - 2.7a Reserves 25
 - 2.7b Deposit Insurance 26

2.8 Life Insurance Companies	27
2.9 Pension Plans	28
2.10 Money Market Mutual Funds and Money Market Instruments	29
2.11 Competition for Funds	31
Summary	32
Review Objectives	33
Relationships	34
Answers	34

Chapter 3 Investment Banking 35

3.1 The Transfer of Funds to Business	36
3.2 The Role of Investment Bankers	36
3.2a Pricing a New Issue	38
3.2b Marketing New Securities	39
3.3 Volatility of the Market for Initial Public Offerings	40
3.4 Shelf Registrations	41
3.5 The Regulation of New Public Issues of Corporate Securities	42
3.6 Sarbanes-Oxley Act of 2002	44
Summary	45
Review Objectives	45
Internet Assignment	46

Chapter 4 Securities Markets 47

4.1 Market Makers	48
4.2 The Mechanics of Investing in Securities	50
4.3 The Short Sale	53
4.4 Measures of Securities Prices	53
4.5 Foreign Securities	55
4.6 Competition in the Securities Markets	55
Summary	58
Review Objectives	59
Internet Assignment	59
Problems	59
Additional Problems with Answers	60
Answers	61
Relationships	62
Answers	62

Chapter 5	The Federal Reserve	63
	5.1 The Role of the Federal Reserve	64
	5.2 Structure of the Federal Reserve	64
	5.3 The Expansion of Money and Credit	66
	5.3a Cash Withdrawals and the Reduction in Reserves	69
	5.4 The Tools of Monetary Policy	72
	5.4a Reserve Requirement	73
	5.4b Discount Rate and the Target Federal Funds Rate	73
	5.4c Open Market Operations	74
	5.5 The Impact of Fiscal Policy on Credit Markets	75
	5.5a Borrowing from the General Public	76
	5.5b Borrowing from Banks	76
	5.5c Borrowing from the Federal Reserve	77
	5.5d Borrowing from Foreign Sources	77
	5.6 Impact of an Inflationary Economic Environment on Credit Markets	79
	Summary	81
	Review Objectives	82
	Internet Assignments	82
	Relationships	82
	Answers	83
Chapter 6	International Currency Flows	84
	6.1 Foreign Currencies and the Rate of Exchange	84
	6.2 Balance of Payments	87
	6.3 The Role of the International Monetary Fund	91
	Summary	93
	Review Objectives	93
	Problems	94
	Additional Problems with Answers	94
	Answers	95
	Relationships	95
	Answers	96

PART 2	FINANCIAL TOOLS	98
Chapter 7	The Time Value of Money	100
	7.1 The Future Value of a Dollar	101
	7.2 Solving Time Value Problems Using Financial Calculators	104
	7.3 The Present Value of a Dollar	106
	7.4 The Future Value of an Annuity of a Dollar	108
	7.4a <i>Future Value of an Annuity Due</i>	111
	7.5 The Present Value of an Annuity of a Dollar	112
	7.5a <i>Present Value of an Annuity Due</i>	114
	7.6 Illustrations of Compounding and Discounting	115
	7.7 Nonannual Compounding	121
	7.7a <i>Periods of Less Than One Year</i>	122
	Summary	123
	Summary of the Equations for the Interest Factors	124
	Review Objectives	124
	Problems	124
	Additional Problems with Answers	129
	Answers	130
	Relationships	133
	Answers	134
Chapter 8	Risk and Its Measurement	135
	8.1 The Return on an Investment	136
	8.2 The Sources of Risk	137
	8.3 The Standard Deviation as a Measure of Risk	140
	8.4 Risk Reduction Through Diversification—An Illustration	145
	8.5 Beta Coefficients	149
	8.6 Regression Analysis and the Estimation of Beta Coefficients	153
	8.7 The Capital Asset Pricing Model and an Investment's Required Return	156
	Summary	159
	Review Objectives	159
	Internet Assignments	160
	Problems	160

Additional Problems with Answers	162
Answers	163
Relationships	164
Answers	165

Chapter 9	Analysis of Financial Statements	166
9.1	General Accounting Principles	167
9.2	The Balance Sheet	168
9.3	The Income Statement	174
9.4	Statement of Cash Flows	176
9.5	Limitations of Accounting Data	179
9.6	Depreciation	181
	9.6a Accelerated Depreciation	183
	9.6b Methods of Depreciation Compared	185
9.7	Ratio Analysis of Financial Statements	187
9.8	Liquidity Ratios	189
	9.8a The Current Ratio	189
	9.8b The Quick Ratio	190
	9.8c The Components of the Current Assets	191
9.9	Activity Ratios	191
	9.9a Inventory Turnover	192
	9.9b Receivables Turnover	193
	9.9c Fixed Asset and Total Asset Turnover	195
9.10	Profitability Ratios	195
9.11	Leverage Ratios	198
9.12	Coverage Ratios	202
9.13	Analysis of Financial Statements and the Internet	202
	Summary	203
	Review Objectives	204
	Internet Assignment	205
	Problems	205
	Additional Problem with Answers	211
	Answers	213
	Relationships	214
	Answers	216

PART 3	INVESTMENTS	218
Chapter 10	The Features of Stock	220
	10.1 Equity	221
	10.2 Common Stock	222
	10.2a Preemptive Rights	224
	10.3 Dividend Policy	225
	10.3a Impact of Transaction Costs	228
	10.3b Impact of Taxation	228
	10.3c The Firm's Need for Funding	229
	10.4 Cash Dividends	230
	10.5 Stock Dividends	232
	10.6 Stock Splits	234
	10.7 Dividend Reinvestment Plans	235
	10.8 Repurchase of Stock	236
	Summary	237
	Review Objectives	237
	Internet Assignments	237
	Problems	238
	Additional Problems with Answers	240
	Answers	242
	Relationships	245
	Answers	246
Chapter 11	Stock Valuation	247
	11.1 Valuation of Common Stock: The Present Value and the Growth of Dividends	248
	11.1a Constant Dividends	248
	11.1b Growth in the Dividend	249
	11.1c Uneven Dividend Growth	252
	11.2 Risk and Stock Valuation	254
	11.3 Alternative Valuation Techniques: Multiplier Models	257
	11.3a The Price-to-Earnings Ratio	257
	11.3b The Price-to-Sales Ratio	258
	11.3c The Price-to-Book Ratio	259
	11.4 Stock Valuation and a Word of Caution	259

Summary	259	
Review Objectives	260	
Internet Assignments	260	
Problems	261	
Additional Problems with Answers	263	
Answers	264	
Relationships	265	
Answers	266	
Chapter 12	The Features of Long-Term Debt—Bonds	267
12.1	Characteristics of All Debt Instruments	268
12.2	Types of Corporate Bonds	270
12.2a	<i>Mortgage Bonds</i>	271
12.2b	<i>Equipment Trust Certificates</i>	271
12.2c	<i>Debentures</i>	271
12.2d	<i>Income Bonds</i>	272
12.2e	<i>Convertible Bonds</i>	272
12.2f	<i>Variable Interest Rate Bonds</i>	273
12.2g	<i>Zero Coupon Bonds</i>	273
12.2h	<i>High-Yield Securities—Junk Bonds</i>	274
12.3	Foreign Bonds	274
12.4	Registered and Book Entry Bonds	275
12.5	Retiring Debt	275
12.5a	<i>Serial Bonds</i>	276
12.5b	<i>Sinking Funds</i>	277
12.5c	<i>Repurchasing Debt</i>	277
12.5d	<i>Calling the Debt</i>	278
12.6	Government Securities	278
12.6a	<i>Federal Government Debt</i>	278
12.6b	<i>Municipal Bonds</i>	280
12.7	Obtaining Information on Bonds	281
Summary	282	
Review Objectives	283	
Relationships	283	
Answers	283	

Chapter 13	Bond Pricing and Yields	284
	13.1 Bond Pricing 285	
	13.1a <i>Using Interest Tables to Determine a Bond's Price</i> 286	
	13.1b <i>Using a Financial Calculator to Determine a Bond's Price</i> 287	
	13.1c <i>The Inverse Relationship between Changes in Interest Rates and Bond Prices</i> 288	
	13.2 Yields 289	
	13.2a <i>The Current Yield</i> 289	
	13.2b <i>The Yield to Maturity</i> 290	
	13.2c <i>A Comparison of the Current Yield and the Yield to Maturity</i> 292	
	13.2d <i>The Yield to Maturity and Returns</i> 293	
	Summary 293	
	Review Objectives 293	
	Problems 294	
	Additional Problems with Answers 296	
	Answers 296	
	Relationships 299	
	Answers 299	
Chapter 14	Preferred Stock	300
	14.1 The Features of Preferred Stock 300	
	14.2 Preferred Stock and Bonds Contrasted 302	
	14.3 Valuation (Pricing) of Preferred Stock 303	
	14.4 Analysis of Preferred Stock 305	
	14.5 Disadvantages of Preferred Stock from an Investor's Perspective 306	
	Summary 307	
	Review Objectives 307	
	Problems 307	
	Additional Problems with Answers 308	
	Answers 309	
	Relationships 310	
	Answers 310	

Chapter 15	Convertible Securities	311
	15.1 Features of Convertible Bonds	311
	15.2 The Valuation of Convertible Bonds	313
	15.2a <i>The Convertible Bond as Stock</i>	313
	15.2b <i>The Convertible Bond as Debt</i>	315
	15.2c <i>The Bond's Value as a Hybrid Security</i>	318
	15.3 Premiums Paid for Convertible Debt	318
	15.4 Convertible Preferred Stock	321
	15.5 Calling Convertibles and Investment Returns	322
	Summary	323
	Review Objectives	324
	Problems	324
	Additional Problems with Answers	325
	Answers	327
	Relationships	329
	Answers	330
Chapter 16	Investment Returns	331
	16.1 The Computation of Returns	332
	16.2 Historical Investment Returns	335
	Summary	336
	Review Objectives	337
	Problems	337
	Additional Problems with Answers	338
	Answers	338
	Relationships	339
	Answers	339
Chapter 17	Investment Companies	340
	17.1 Investment Companies: Origins and Terminology	341
	17.2 Closed-End Investment Companies	343
	17.3 Sources of Return from Investing in Closed-End Investment Companies	344
	17.4 Mutual Funds	345
	17.5 The Portfolios of Mutual Funds	347

17.6	The Portfolios of Specialized Mutual Funds	348
17.7	The Returns Earned on Investments in Mutual Funds	349
17.7a	<i>Studies of Returns</i>	350
17.7b	<i>Consistency of Returns</i>	350
17.8	Selecting a Mutual Fund	352
17.8a	<i>Fees and Expenses</i>	352
17.8b	<i>The Timing of Distributions and Income Taxation</i>	353
17.8c	<i>Tax Efficiency</i>	353
17.9	Exchange-Traded Funds (ETFs)	354
	Summary	357
	Review Objectives	358
	Internet Assignments	358
	Problems	359
	Additional Problems with Answers	360
	Answers	360
	Relationships	361
	Answers	361
PART 4	CORPORATE FINANCE	362
Chapter 18	Forms of Business and Corporate Taxation	364
18.1	The Three Components of Financial Management	364
18.2	Sole Proprietorships, Partnerships, and Corporations	365
18.2a	<i>S Corporations and Limited Liability Companies (LLC)</i>	368
18.3	Corporate Taxation	369
18.4	Taxation of Corporate Losses	370
	Summary	371
	Review Objectives	372
	Problems	372
	Additional Problems with Answers	373
	Answers	373
	Relationships	374
	Answers	375
Chapter 19	Break-Even Analysis and the Payback Period	376
19.1	Break-Even Analysis	377
19.1a	<i>Uses for Break-Even Analysis</i>	380
19.2	The Payback Period	381

Summary	382	
Review Objectives	383	
Problems	383	
Additional Problems with Answers	385	
Answers	386	
Relationships	387	
Answers	387	
Chapter 20	Leverage	388
20.1	Operating Leverage	389
	20.1a <i>Fixed Asset Turnover: A Measure of Operating Leverage</i>	389
20.2	Operating Leverage and Risk	391
20.3	Financial Leverage	393
20.4	Financial Leverage and Risk	396
20.5	Financial Leverage Through Preferred Stock Financing	399
	Summary	400
	Review Objectives	400
	Problems	401
	Additional Problems with Answers	403
	Answers	404
	Relationships	405
	Answers	406
Chapter 21	Cost of Capital	407
21.1	Components of the Cost of Capital	408
	21.1a <i>Cost of Debt</i>	409
	21.1b <i>Cost of Preferred Stock</i>	410
	21.1c <i>Cost of Common Stock</i>	411
21.2	Cost of Capital: A Weighted Average	415
21.3	The Optimal Capital Structure	417
21.4	The Marginal Cost of Capital	420
21.5	The Optimal Capital Structure and the Value of the Firm's Stock	424
21.6	Cost of Capital: Review and Problem Areas	426
	Summary	427
	Review Objectives	428
	Problems	428

Additional Problems with Answers	431
Answers	432
Relationships	434
Answers	434
Chapter 22 Capital Budgeting	435
22.1 Valuation and Long-Term Investment Decisions	436
22.2 Importance of Cash Flow	437
22.3 Introduction to Discounted Cash Flow Methods of Capital Budgeting	440
22.4 Net Present Value	441
22.5 Internal Rate of Return	443
22.6 Net Present Value and Internal Rate of Return Compared	446
22.7 Ranking Investment Alternatives	448
22.7a Differences in the Timing of Cash Flows	449
22.7b Differences in Cost	452
22.8 The Introduction of Risk into Capital Budgeting	455
22.9 Risk Adjustments in Capital Budgeting	457
22.9a Adjusting the Discount Rate	460
Summary	463
Review Objectives	464
Problems	465
Additional Problems with Answers	471
Answers	472
Relationships	477
Answers	478
Chapter 23 Forecasting	479
23.1 Planning	480
23.2 Fluctuations in Asset Requirements	481
23.3 Forecasting External Financial Requirements: Percent of Sales	483
23.4 The Percent of Sales Summarized as an Equation	487
23.5 Forecasting External Financial Requirements: Regression Analysis	490
23.6 Forecasting External Financial Requirements: Changes in Fixed Assets	496

Contents

Summary	498	
Review Objectives	499	
Problems	499	
Additional Problems with Answers	505	
Answers	508	
Relationships	510	
Answers	511	
Chapter 24	Cash Budgeting	512
24.1	The Cash Budget	513
24.2	The Differences between a Cash Budget and an Income Statement	514
24.3	The Cash Budget Illustrated	514
	Summary	518
	Review Objectives	519
	Problems	519
	Additional Problem with Answers	522
	Answers	523
	Relationships	524
	Answers	525
Chapter 25	Management of Current Assets	526
25.1	Working Capital and Its Management	527
25.2	The Impact of the Operating Cycle on Working Capital Policy	528
25.3	Financing and Working Capital Policy	530
25.4	The Importance of Cash to Working Capital Management	533
25.5	The Inventory Cycle	536
25.6	The Economic Order Quantity	538
	25.6a Weaknesses in the EOQ	544
	25.6b Maximum, Minimum, and Average Inventory	545
25.7	Management of Accounts Receivable	546
	25.7a Credit Policy	547
	25.7b The Decision to Grant Credit	548
	25.7c Analyzing Accounts Receivable	550
25.8	Cash Management	552
	25.8a Cash Management Policies	552

Contents

	25.9 Money Market Securities and Yields	553
	25.9a <i>The Calculation of Yields</i>	554
	Summary	556
	Review Objectives	557
	Problems	557
	Additional Problems with Answers	561
	Answers	562
	Relationships	564
	Answers	565
Chapter 26	Management of Short-Term Liabilities	566
	26.1 Accruals	567
	26.2 Commercial Bank Loans	567
	26.2a <i>Cost of Commercial Bank Credit</i>	569
	26.3 Trade Credit	574
	26.3a <i>Cost of Trade Credit</i>	575
	26.4 Commercial Paper	578
	26.5 Secured Loans	580
	26.5a <i>Inventory Loans</i>	581
	26.5b <i>Accounts Receivable Loans</i>	582
	26.6 Factoring	582
	Summary	583
	Review Objectives	584
	Problems	585
	Additional Problems with Answers	587
	Answers	587
	Relationships	589
	Answers	590
Chapter 27	Intermediate-Term Debt and Leasing	591
	27.1 Intermediate-Term Debt	592
	27.2 Leasing	595
	27.2a <i>Lease or Purchase</i>	596
	27.3 Accounting for Leases	598
	Summary	601
	Review Objectives	602

Problems	602
Additional Problems with Answers	603
Answers	604
Relationships	606
Answers	606

PART 5 DERIVATIVES **608**

Chapter 28 Options: Puts and Calls **610**

28.1 Options	611
28.2 The Intrinsic Value of a Call Option	611
28.3 Leverage	614
28.4 Writing Call Options	618
28.4a <i>The Covered Call</i>	618
28.4b <i>The Naked Call</i>	620
28.5 Put Options	621
28.6 Stock Index Options	623
28.7 The Volatility Index (The VIX)	624
Summary	625
Review Objectives	626
Internet Assignment	626
Problems	626
Additional Problems with Answers	628
Answers	630
Relationships	631
Answers	632

Chapter 29 Futures and Swaps **633**

29.1 Futures Contracts	634
29.1a <i>The Mechanics of Trading Futures</i>	634
29.1b <i>Commodity Positions</i>	635
29.1c <i>Reporting of Futures Trading</i>	636
29.2 Leverage	638
29.3 Hedging	639
29.4 Financial and Currency Futures	641
29.4a <i>Risk Reduction with Currency Futures Contracts</i>	643

Contents

29.5 Stock Index Futures	644	
29.6 Swaps	645	
Summary	647	
Review Objectives	648	
Problems	649	
Additional Problems with Answers	650	
Answers	651	
Relationships	651	
Answers	652	
Appendix A	Interest Factors for the Future Value of One Dollar	653
Appendix B	Interest Factors for the Present Value of One Dollar	655
Appendix C	Interest Factors for the Future Value of an Annuity of One Dollar	657
Appendix D	Interest Factors for the Present Value of an Annuity of One Dollar	659
Appendix E	Using Excel to Solve Financial Problems	661
Appendix F	Answers to Selected Problems	684
Index		693

“Finance” is a broad discipline. From an individual’s perspective, finance encompasses financial institutions and investments. Virtually every day I have some contact with a financial institution. I write and receive checks, review my bank balance online, and use my credit cards. Other members of my family do the same. Your contact with financial institutions is probably just as frequent.

I make investment decisions that often meet a specific purpose, such as a stock purchase in my retirement account or my grandchildren’s college fund accounts. I may sell a stock that I believe is overvalued or buy one that I think is undervalued. Many people periodically make investment decisions. They may not even be conscious of these decisions: Having funds withheld from your paycheck and invested in your employer’s 401(k) retirement plan is an investment decision, even if you don’t select the specific assets to include in the plan. And the same applies when you leave funds in a mutual fund or continue to hold a stock. Maintaining those positions are also investment decisions.

Business owners and managers make financial decisions, so the third facet of finance is often referred to as business finance or corporate finance. The employees of governments and nonprofit institutions also make similar financial decisions. Since expected future cash inflows and outflows affect current financial decisions, many tools used for making business decisions also apply to nonbusiness financial decisions.

Of course, financial institutions, investments, and business finance do not operate independently. Some courses in finance are called “Managerial Finance,” while others have titles such as “Financial Management.” You might infer from such names that Financial Management is the same as Managerial Finance, but such an inference is probably incorrect. The focus in managerial finance is business financial decision making. Financial management is generally broader and combines financial institutions, investments, and business finance, although the emphasis is usually on their application to business decision making.

This text introduces you to the three areas of the finance discipline. It provides you with breadth (but not depth) of knowledge of finance and is a foundation on which you may build. I realize that many students will take only one course in a specific discipline. Finance majors generally do not take additional courses in marketing; marketing majors may take only this one course in finance. Since you may have only this exposure to the areas of finance, this text gives

you a working knowledge of the terms, environment, and mechanics of financial decision making.

Besides introducing you to the broad field of finance, *Basic Finance* also aims to encourage all students to do additional work in the field. I am, of course, biased, but survey courses and introductory texts do offer instructors excellent opportunities to encourage (do I dare say “lobby”?) students to do additional work in their areas. To do this additional work, you need basic background. By exposing you to all facets of finance, this textbook lays a foundation that will encourage and facilitate your taking additional courses in finance.

The Conceptual Change from the Previous Edition

The initial concept for *Basic Finance* was a text with many short chapters. The first edition had 27 chapters. Most chapters were less than 25 pages, and each was essentially a self-contained unit. This approach facilitates instructors’ selection of individual topics to emphasize. For example, the features and pricing of bonds can be covered but the application to preferred stock may be excluded. Concise chapters also facilitate instruction that covers content and uses the problems to illustrate and apply the concepts. An initial class may be devoted to specific topics and the subsequent class or classes may be devoted to the problems. This edition continues that approach, with the exception of the material on the time value of money (Chapter 7), risk and its measurement (Chapter 8), and analysis of financial statements (Chapter 9). Discounting and compounding, risk and its management, and analysis of financial statements permeate virtually every aspect of finance and are covered in more detail than other topics.

Specific changes to this edition include the updating of exhibits and deletion of material that is dated (e.g., NYSE specialists). Material that has been added or revised includes ETFs, ADRs, changes in the Dow Jones Industrial Average, tax rates, composite transactions, classes of stock, and the Detroit bankruptcy. Several of the explanations and problems have new numbers, especially illustrations and problems that use interest rates, since these rates continue to be at historic low levels. In several chapters, problems devoted to specific topics (e.g., funds placed in or withdrawn from a retirement account) have been grouped together. Since several students told me that the self-help fill-in-the-blanks and illustrated problems helped them learn and comprehend the material, I have created more of these teaching devices, especially in the chapters on corporate finance.

Possible Organizations for a Basic Finance Course

The book is divided into five parts: financial institutions, financial tools, investments, corporate finance, and derivatives. One advantage of short chapters is their adaptability to several approaches. If the course is meant to survey

the field of finance, the instructor may select chapters throughout the text and place less emphasis on numerical problems. An alternative strategy is to approach finance through investments. Many students have an inherent interest in investments, especially since they can easily have their own online brokerage accounts. The course can be constructed to build upon this interest and expand topics into other areas of finance.

If the course emphasizes corporate finance, Part 4 is especially important, in conjunction with additional selected chapters (e.g., time value of money, risk measurement, initial public offerings, and the descriptions of stocks and bonds). The self-contained chapters should facilitate converting the book into a text that is readily used in a traditional corporate finance course.

Pedagogical Features

All textbooks feature a variety of pedagogical tools designed to improve learning. Anecdotal evidence suggests varying degrees of success. Definitions are placed in boldface in the margins. Over the years, several students have commented on the benefits of the marginal definitions. Time value illustrations permeate this text. Their solutions using a financial calculator are also placed in the margins. This approach avoids breaking the flow of the text material. Since different financial calculators use different formats, the marginal presentation is generic. It lists the known variables and their values, and identifies the unknown. The solution for the unknown is given separately.

In previous editions every chapter began with learning objectives. One day I walked into class and casually asked, “Who reads the learning objectives at the beginning of the chapter?” By the looks on their faces I could tell I needed to add, “I want an honest answer. Don’t tell me Yes if you think that is what I want to hear.” A couple of students said they did read the learning objectives. I then asked, “Who reads the questions at the end of the chapter?” One student said, “Only if you assign them!”

I should not have been surprised, because as an undergraduate, I would not have read them. In this text, I have placed the learning objectives at the end of each chapter, retitled them “review objectives,” and identified where the material is covered in the chapter. The instructor may convert these review objectives into questions and use them in class to help students review the material.

Where appropriate, the chapters have numerical problems with which to review the material. These problems primarily replicate the text illustrations or present straightforward variations on the text examples. Selected answers are provided in Appendix F.

Many chapters have “Additional Problems with Answers.” These problems are similar to the other problems and illustrations in the chapters. However, unlike the selected answers to the chapters’ problems provided in Appendix F, the “Additional Problems with Answers” provide the steps necessary to determine the solution. The expectation is that the individual student will

work through each problem and then consult the answers. Such an approach should increase the student's ability to work through and solve the problems.

Another pedagogical feature is "Relationships." Relationships play an important role in finance. Changing one variable or factor often causes something else to change. For example, lower interest rates increase bond prices. Many of the chapters have a self-test in which the student is asked to determine how a change in one thing affects something else. There are three possible answers: increases, decreases, or does not affect (no change). Realizing that there may be no effect can be just as important as perceiving the direction of change! The answers to these fill-in-the blank relationships are provided at the end of the assignment.

Acknowledgments

A textbook author uses the input and assistance of many individuals. Over the years, I have received many thoughtful reviews and comments from individuals who sincerely offered suggestions. Unfortunately, suggestions may be contradictory. Since I cannot please all of the people all the time, I trust that those who offered advice that was not taken will not be offended.

At this point in the Preface, it is traditional for the author to thank members of the editorial and production staffs for their help in bringing the book to fruition. These individuals are geographically dispersed, and it never ceases to amaze me how this far-flung group somehow manages to pull the pieces together. For this edition, I would like to thank Clara Goosman and Jason Guylar, acquisitions editors; Ted Knight, development editor; and Divya Divakaran, project manager.

Anne Piotrowski created the PowerPoint slides. Her willingness to work through various styles and possible presentations greatly enhanced the final product.

I also must extend a huge thank-you to Suzanne Davidson and Margaret Trejo for copy editing and proofreading the text. Their attention to detail caught minute errors that I would never perceive. And, of course, special thanks must be extended to Margaret's two dogs, Ella and Simon, who always greeted me with licks and barks, even if I forgot to bring them a treat!

An Introduction to Basic Finance

“Princes come and princes go.” This quote from the musical *Kismet* is exceptionally apropos of finance. Yesterday’s success may be today’s failure. Bear Stearns, WorldCom, and Enron were major success stories, but thanks to questionable accounting and even illegal acts, they reported huge losses and filed for bankruptcy. Today, eBay and Google are major success stories. Will they experience the same fate as WorldCom and Enron?

Finance studies money and its management. Like economics, it explores the allocation of resources. The process of resource allocation occurs over time. Firms invest in inventory, plant, and equipment, but the returns are earned in the future. An investor constructs a portfolio of assets, but the return is earned in the future. A commercial bank grants a loan in anticipation of earning interest and having the principal repaid. In each case the financial decision is made in the present but the return is in the future.

Because the future is unknown, finance studies the allocation of resources in a world of uncertainty. Of course, future events are anticipated, but they are not certain. Not every possible outcome that may affect returns can be anticipated. Unexpected events infuse financial decisions with uncertainty and the potential risk of loss. Investors, portfolio managers, and corporate financial managers may take actions to help manage risk, but risk still exists and is a major component in the study of finance.

1.1 The Divisions of Finance

Finance as a discipline is generally divided into three areas: financial institutions, investments, and business finance. The divisions are somewhat arbitrary, and they certainly overlap. Investment decisions and corporate financing decisions are made within the current financial environment and its institutions. And business finance is not independent of investments. For a firm to be able to issue and sell new securities, there must be individuals who are willing to invest in and buy the new securities.

The study of financial institutions, as the name implies, is concerned with the institutional aspects of the discipline, which encompass the creation of financial assets, the markets for trading securities (for example, the New York Stock Exchange), and the regulation of financial markets. Financial assets are created through investment bankers and financial intermediaries, such as commercial banks, savings and loan associations, and life insurance companies. Each of these financial firms transfers the savings of individuals to firms needing funds, and this transfer produces financial assets. Once these financial assets are created, many may subsequently be bought and sold in the secondary markets. These securities markets transfer billions of dollars of financial assets among investors ranging from individuals with small amounts to invest to large mutual funds and trust departments in commercial banks and insurance companies.

The study of investments is primarily concerned with the analysis of individual assets and the construction of well-diversified portfolios. It encompasses financial planning, specifying the investor's financial goals, analyzing various securities that the individual may acquire, and constructing diversified portfolios. Of course, investment decisions are not made in a vacuum, and the financial environment plays a role in the investment decision process. Certainly taxation, the monetary policy of the Federal Reserve, and the flow of information that publicly held firms are required to provide stockholders can and do affect the decision to buy or sell specific assets.

The study of corporate or business finance emphasizes the role of the financial manager. The financial manager must make certain that the firm can meet its obligations as they come due, determine which are the best sources of financing for the firm, and allocate the firm's resources among competing investment alternatives. The financial manager has a large and demanding job; in a large corporation, this job is performed by a staff that reports to the chief financial officer (CFO). Of course, the management of a small business must also make many of the same decisions, but these individuals have fewer resources to devote to financial management.

Financial managers and investors make similar decisions, although on a different scale. While the individual may have a few thousand dollars to invest, the corporate treasurer may have millions to allocate among competing assets. The financial manager may also make more decisions involving real assets (plant and equipment) than the individual investor, who is primarily concerned with financial assets. Both, however, are affected by the financial environment. The Federal Reserve's monetary policy, the federal government's fiscal policy, the legal requirements for the dissemination of information, and

fiduciary responsibilities to creditors and stockholders affect financial decision making. Neither the firm's financial manager nor the individual investor can ignore the potential impact of the financial and legal environment.

While individual investors may work alone for their personal benefit, a firm's financial manager must work within the framework of the business. Marketing and managing decisions can have important implications for the firm's financial well-being. Virtually every business decision has a financial implication, and financial resources are often a major constraint on the firm's nonfinancial personnel. It is certainly desirable for individuals in marketing, human resources, information systems, and planning to understand the basic concepts of finance and the role of the financial manager. Such understanding may lead to better communication, the creation of better data for decision making, and better integration of the various components of the business.

1.2 Key Financial Concepts

Several crucial concepts appear throughout this text. The first is the sources of funds used by a firm. Firms can acquire assets only if someone puts up the funds. For every dollar the firm invests, someone must invest that dollar in the firm. The second concept centers around risk and return. Individuals and firms make investments to earn a return, but that return is not certain. All investments involve risk. The third concept is financial leverage, which is an important source of risk. The last concept is valuation, or what an asset is worth. Because the return earned by an investment occurs in the future, the anticipated cash flow to be generated by the asset must be expressed in the present. That is, the asset must be valued in today's dollars in order to determine whether to make the investment. Because the goal of financial management is often specified as the maximization of the value of the firm, the valuation of assets is probably the most crucial individual concept covered in this text.

Balance sheet

Financial statement that enumerates (as of a point in time) what an economic unit owns and owes and its net worth

Assets

Items or property owned by a firm, household, or government and valued in monetary terms

Liabilities

What an economic unit owes expressed in monetary terms

Equity

Owners' investment in a firm; a firm's book value or net worth

1.2a Sources of Finance

Finance is concerned with the management of assets, especially financial assets, and the sources of finance used to acquire the assets. These sources and the assets that a firm owns are often summarized in a financial statement called a **balance sheet**. (Notice that important terms are in **boldface** and the definitions appear in the margin to facilitate learning. The terms and their definitions that appear in this chapter illustrate the presentation. Each reappears in its proper place in the text.) A balance sheet enumerates at a moment in time what an economic unit, such as a firm, owns, its **assets**; what it owes, its **liabilities**; and the owners' contributions to the firm, the **equity**.

Other economic units, such as a household or a government, may also have a balance sheet that lists what is owned (assets) and what is owed (liabilities). However, since there are no owners, the equity section may be given a different name. For example, the difference between the assets and the liabilities might be referred to as the individual's "net worth," or estate.

Although the construction of financial statements is explained more fully in Chapter 9, the following balance sheet provides an introduction.

Corporation X Balance Sheet as of December 31, 20XX			
Assets		Liabilities and Equity	
Total assets	\$100	Liabilities	\$ 40
		Equity	60
	<u>\$100</u>		<u>\$100</u>

Corporation X has \$100 in assets. It could not have acquired the assets unless someone (or some other firm such as a bank) put up the funds. In this example, creditors have put up \$40 (the liabilities). The word *credit* is derived from the Latin word *credo*, which means “I believe,” so the creditors believe that the borrower will pay the interest and repay the principal at some future date. The equity (\$60) represents the funds invested by the owners (stockholders), who also have a claim on the corporation. The nature of the owners’ claim, however, is different because the corporation does not owe them anything. Instead, the owners receive the benefits and bear the risks associated with controlling the corporation.

Both the creditors who have lent funds and the individuals who own the corporation are investors. Both groups are sources of the capital that will subsequently be invested in the corporation’s assets. It is important to realize that creditors as well as owners are investors; the difference lies in the nature of their respective claims. The creditors have a legal claim that the borrower must meet; the owners do not have such a claim. The creditors and the owners, however, are both willing to make their respective investments in anticipation of earning a return, and both bear the risk associated with their investments.

A large part of this text is devoted to the sources of finance and their subsequent investment by the firm’s financial managers. For example, Chapters 22 and 25 are devoted to the management of current and long-term assets, while Chapters 10, 12, 14, and 26 consider various sources of finance. It is important to understand the interdependence between the firm that uses the funds and the investors who supply the funds. Bonds, for example, are a major source of long-term funds for many corporations, but it should be remembered that investors buy the bonds that a corporation (or government) issues. The sale of the bonds is a source of finance to the corporation, while the purchase of the bonds is a use of investors’ funds. The basic features of the bonds, however, are the same for both the issuer and the buyer.

Return

What is earned on an investment; the sum of income and capital gains generated by an investment

1.2b Risk and Return

All investments are made because the individual or management anticipates earning a **return**. Without the expectation of a return, an asset would not be acquired. While assets may generate this return in different ways, the sources of return are the income generated and/or price appreciation. For example,

you may buy stock in anticipation of dividend income and/or capital gains (price appreciation). Another investor may place funds in a savings account because he or she expects to earn interest income. The financial manager of a firm may invest in equipment in anticipation that the equipment will generate cash flow and profits. A real estate investor may acquire land to develop it and sell the properties at an anticipated higher price. And the financial manager of a nonprofit institution may acquire short-term securities issued by the federal government in anticipation of the interest earned.

In each case, the investment is made in anticipation of a return in the future. However, the expected return may not be attained. That is the element of risk. **Risk** is the *uncertainty that an expected return may not be achieved*. All investments involve some element of risk. Even the funds deposited in a federally insured savings account are at risk if the rate of inflation exceeds the interest rate earned. In that case, the investor sustains a loss of purchasing power. The individual certainly would not have made that investment if such a loss had been anticipated; instead, an alternative course of action would have been selected.

Risk

Possibility of loss; the uncertainty that the anticipated return will not be achieved

Because financial decisions are made in the present but the results occur in the future, risk permeates financial decision making. The future is not certain; it is only expected. However, possible sources of risk can be identified, and, to some extent, risk can be managed. One way to manage risk is to construct a portfolio consisting of a variety of assets. When the portfolio is diversified, events that reduce the return on a particular asset may increase the return on another. For example, higher oil prices may benefit oil drilling operations but may hurt users of petroleum products. By combining both in the portfolio, the investor reduces the risk associated with investing in either the oil producer or the oil consumer.

Because risk is an integral part of financial decision making, it appears throughout this text. All investors and financial managers want to earn a return that is commensurate with the amount of risk taken. An investor may be able to achieve a modest return and bear virtually no risk. A federally insured savings account with a commercial bank that pays 2.5 percent is virtually risk free and will be referred to in subsequent chapters as risk-free investment. But to earn a higher return, the individual investor or the firm's management will have to accept additional risk.

1.2c Financial Leverage

One major source of risk that permeates financial decision making is the choice between equity and debt financing. You may acquire an asset by using your own funds or by borrowing them. The same choices are available to firms and governments. A corporation may retain earnings or sell new stock and use the funds to acquire assets. Or the firm may borrow the money. Governments use tax revenues and receipts to buy assets and provide services, but governments also may borrow funds. In each case, the borrower is using **financial leverage**. Financial leverage occurs when you borrow funds in return for agreeing to pay fixed payments such as interest and repay the principal

Financial leverage

Use of borrowed funds in return for agreeing to pay a fixed return; use of debt financing

after a period of time. If you can earn a higher return than you have agreed to pay, the difference accrues to you, the borrower, and magnifies the return on your investment. Notice, however, that if you earn a lower return, you have to make up the difference, which magnifies your loss. You cannot have it both ways. To increase the potential return, you also increase the potential loss. This trade-off between magnifying returns versus magnifying potential losses occurs frequently in the chapters that follow.

1.2d Valuation

Valuation

Process of determining what an asset is currently worth

Assets are acquired in the present, but their returns accrue in the future. No individual or firm would purchase an asset unless there was an expected return to compensate for the risk. Since the return is earned in the uncertain future, there has to be a way to express the future in terms of the present. The process of determining what an asset is currently worth is called **valuation**. An asset's value is the present value of the future benefits. For example, the current value of a federal government bond is the sum of the present value of the expected interest payments and the expected repayment of the principal. The current value of equipment is the present value of the expected cash flows it will generate.

The determination of present value is one of the most important topics developed in this text. It requires estimates of future cash flows and measurements of what the funds invested in the asset could earn in alternative, competitive investments. The mechanics of determining present value (as well as determining future value) are covered in Chapter 7. Understanding this material is crucial to understanding much of the material covered in this text.

A firm is a combination of many assets and, therefore, its value must be related to the value of the assets it owns. The value of these assets, in turn, depends on the returns they will generate in the future. In finance, the goal of the financial manager is to *maximize the value of the firm*. Schering-Plough even titled one of its annual reports “Maximizing Shareholder Value.” All financial decisions are judged by their impact on the value of the firm. Did the decision increase or reduce the present value of the firm?

This value may be readily measured if the firm has shares of ownership (stock) held by the general public. The market price of the stock is indicative of the value of the company. Because the value of the firm is the sum of the value of its shares, the market value of a share of stock times the number of shares gives the value of the company. For example, as of 2013, Capital One Financial had 584,000,000 shares outstanding. At a price of \$68 a share, that made the value of the firm's equity \$39,712,000,000.

Although security prices are subject to fluctuations, firms that have consistently grown and prospered have seen the price of the stock, and hence the value of the company, increase. In 1996, the value of Capital One Financial was \$2,319,600,000; the value of Capital One thus rose \$37 billion from 1996 to 2013. This suggests that management made decisions that increased the value of the company. Over time, the price of a company's stock is indicative of management performance.

Smaller firms or firms whose stock is not owned by the general public—by far the largest number of firms in existence—do not have market prices for their stock. Hence, owners and managers may not be able to ascertain the value of the firm. In these cases, the value is determined only when the firm is liquidated or sold (at that time, the value of the firm is the liquidation value or sale price). Since such liquidation or sale generally occurs only once, the owners and managers do not know the true value of the firm. They may use the value of the firm's equity as shown on the accounting statements as some indication of the firm's worth, but management cannot be certain of the firm's true value.

1.3 Assumptions

Financial analysis is built on assumptions. Consider the following illustration. Every year you contribute \$1,000 to your retirement account. If you earn 4 percent annually, how much will be in the account after ten years? The answer to the question depends on the following assumptions. (1) You make the \$1,000 contribution each year, not more and not less; (2) you make the contributions for ten years; and (3) you earn 4 percent every year for the ten years. There is also another assumption that is not stated but must be made in order to answer the question. Are the \$1,000 contributions made at the beginning of the year or at the end of each year? If you assume they are made at the beginning of the year, you collect interest for ten years. If you make the payments at the end of each year, you collect interest for only nine years. Obviously the final amount will depend on the timing of the contributions.

Throughout this text, assumptions have to be made to illustrate the concepts. In some cases, the wording implies an assumption. For example, investors *anticipate* or *expect* a return of XX percent. In other cases historical data or current data are assumed to apply in the future. For example, annual historical stock returns were YY percent. The analysis then *assumes* the historical return will apply to future returns. Obviously the results will depend on the validity of the assumption. The results of financial models and applications of financial theory can be only as good as the accuracy of the assumptions used to complete the analysis.

1.4 Finance and Other Business Disciplines

Although finance is a separate academic discipline, its roots are in accounting and economics. Several years ago, the first finance courses tended to emphasize the analysis of financial statements and legal topics, such as the order of legal claims. Although this emphasis has diminished, accounting principles and financial statements continue to be a major source of information, and the analysis of financial statements is an integral component in the value approach to the selection of securities.

With the development of theories of portfolio behavior and asset valuation, economics began to play a more important role in finance. Theories based on economic principles encompassing corporate financial structure, the importance (or unimportance) of dividends, and option valuation became the backbone of finance and, in many cases, supplanted accounting's role. The development of empirical tools further augmented financial analysis, as statistics became a means to verify economic theory as it applies to finance. The ability to test economic and financial hypotheses further enriched the field of finance.

Although finance uses economic theory and accounting principles and financial statements, it has developed its own body of material. Finance courses, however, are generally offered as part of a program in business. Other academic disciplines within business may include information systems, human resource management, and marketing as well as accounting and economics. Finance, however, differs from these areas in one exceedingly important way. It can be studied from two perspectives: that of the users or that of the suppliers of funds.

This ability to approach finance from more than one perspective is important. Consider human resource management or marketing. In both of these disciplines (and in accounting or information systems or strategic planning), the emphasis is on the business. The individual area may have many subdivisions, but the emphasis is how each division fits into the business and its operations. The emphasis is not from an individual's perspective.

Finance may also be studied from a business perspective, which is exactly what occurs in corporate finance or financial management courses. Finance, however, may be studied from the investor's perspective. While corporate finance emphasizes raising funds and their subsequent allocation, investments emphasizes the construction of diversified portfolios and the allocation of wealth among competing securities. Of course, these two perspectives are often opposite sides of the same coin. The firm issues securities (for example, bonds or stock) to raise funds. Investors buy these securities to earn a return and diversify their portfolios. In either case, it is the same security.

The tools of analysis used in corporate finance and investments are also the same. A firm's financial statements are employed by both management and investors to analyze the firm's financial condition. Methods used to value and evaluate an investment in plant and equipment are conceptually the same as those used to value stocks and bonds. The calculations of returns on investments in stocks and bonds are the same as the calculations used to determine the returns on investments in plant, equipment, and other real (tangible) assets. The tax and legal environments and the financial institutions in which securities are initially sold and subsequently traded apply both to businesses and to individuals.

Although finance can have more than one perspective, the material as presented in an introductory finance course often emphasizes one side. Many traditional introductory finance courses stress corporate finance or financial management with a corporate emphasis. This approach makes the course more consistent with other classes taught in a business program. It also facilitates tying together marketing, human resource management, information management, and the various other areas of a business education.

1.5 Plan of the Text

This text is a basic introduction to the three areas of finance: financial institutions, investments, and business finance. Part 1 is devoted to financial institutions and the process by which savings are transferred into investments. Chapter 1 introduces this process and Chapter 2 covers financial markets and intermediaries. Chapter 3 considers the direct transfer, that is, the creation and initial sale of securities to the general public through investment bankers. The next chapter (Chapter 4) covers the subsequent trading in stocks and bonds in the securities markets. Chapters 5 and 6 add the impact of the Federal Reserve on the money supply and credit markets (Chapter 5), and international flows of funds (Chapter 6).

Part 2 is devoted to three important tools used in investment decision making and corporate finance. Most financial decisions involve time. An investment is made in the present but the return is earned in the future. Standardizing for time is achieved by expressing the present in terms of the future or the future in terms of the present. Every student using this text needs to read carefully and understand the material in Chapter 7, “The Time Value of Money.” If you do not comprehend the time value of money, much of the remaining text will have little meaning.

All investments involve risk. Chapter 8 examines the sources of risk, the measurement of risk, and the importance of diversification. As with the time value of money, the measurement of risk and risk management are difficult topics. While Chapter 8 is primarily descriptive, it does cover statistical measures of risk. Even if your background in statistics is weak, simple illustrations are provided so that you should be able to grasp the concepts. The last chapter in Part 2 covers the analysis of financial statements. Chapter 9 is a long chapter because it reviews financial statements and then illustrates the calculation of various ratios used to analyze financial statements. If you already know the analysis of financial statements, you may move forward to Part 3, which is devoted to specific financial assets.

Chapters 10 and 11 cover common stock. The first is descriptive and the second applies valuation techniques. This order is repeated in Chapters 12 and 13, which are devoted to bonds and their valuation. Chapters 14 and 15 explain preferred stock and convertible bonds, which are hybrid securities that include features of equity and debt. Chapter 16 illustrates the calculation of returns and provides historical returns that have been earned on various securities. After completing Chapters 10 through 16, you may decide to delegate investment decisions to someone else. Chapter 17 covers the variety of investment companies that relieve you of having to select specific securities. However, it remains your responsibility to select specific investment companies.

Part 4 is devoted to business finance with emphasis on corporate finance. Chapter 18 reviews the forms of business and corporate taxation, and Chapter 19 describes two simple techniques used to make investment decisions: break-even analysis and the payback period. Chapter 20 explains leverage as it applies to business: the leverage associated with the nature of the firm’s