

THE **#1**  
BESTSELLING GUIDE TO  
CORPORATE VALUATION

OVER  
**800,000**  
COPIES  
SOLD

# VALUATION

SEVENTH **7** EDITION

MEASURING AND MANAGING THE  
VALUE OF COMPANIES

TIM KOLLER • MARC GOEDHART • DAVID WESSELS

MCKINSEY & COMPANY

The Wiley Finance series contains books written specifically for finance and investment professionals as well as sophisticated individual investors and their financial advisors. Book topics range from portfolio management to e-commerce, risk management, financial engineering, valuation and financial instrument analysis, as well as much more. For a list of available titles, visit our Web site at [www.WileyFinance.com](http://www.WileyFinance.com).

Founded in 1807, John Wiley & Sons is the oldest independent publishing company in the United States. With offices in North America, Europe, Australia and Asia, Wiley is globally committed to developing and marketing print and electronic products and services for our customers' professional and personal knowledge and understanding.

# **VALUATION**

## **MEASURING AND MANAGING THE VALUE OF COMPANIES**

**SEVENTH EDITION**

McKinsey & Company

Tim Koller

Marc Goedhart

David Wessels

**WILEY**

Cover design: Wiley

Copyright © 1990, 1994, 2000, 2005, 2010, 2015, 2020 by McKinsey & Company. All rights reserved.

Published by John Wiley & Sons, Inc., Hoboken, New Jersey.

Published simultaneously in Canada.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600, or on the Web at [www.copyright.com](http://www.copyright.com). Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at <http://www.wiley.com/go/permissions>.

**Limit of Liability/Disclaimer of Warranty:** While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives or written sales materials. The advice and strategies contained herein may not be suitable for your situation. You should consult with a professional where appropriate. Neither the publisher nor author shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

For general information on our other products and services or for technical support, please contact our Customer Care Department within the United States at (800) 762-2974, outside the United States at (317) 572-3993 or fax (317) 572-4002.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <http://booksupport.wiley.com>. For more information about Wiley products, visit [www.wiley.com](http://www.wiley.com).

Library of Congress Cataloging-in-Publication Data

Names: McKinsey and Company. | Koller, Tim, author. | Goedhart, Marc H., author. | Wessels, David, author.

Title: Valuation : measuring and managing the value of companies / McKinsey & Company, Tim Koller, Marc Goedhart, David Wessels.

Description: Seventh edition. | Hoboken, New Jersey: Wiley, [2020] |

Series: Wiley finance | First edition entered under: Copeland, Thomas E.

Identifiers: LCCN 2020013692 (print) | LCCN 2020013693 (ebook) | ISBN 978-1-119-61088-5

(Hardcover) | ISBN 978-1-119-61087-8 (ePDF) | ISBN 978-1-119-61092-2 (ePub) | ISBN

978-1-119-61186-8 (University Edition) | ISBN 978-1-119-61246-9 (Cloth edition with

DCF Model Download) | ISBN 978-1-119-61181-3 (Workbook) | ISBN 978-1-119-61086-1

(DCF Model Download)

Subjects: LCSH: Corporations—Valuation—Handbooks, manuals, etc.

Classification: LCC HG4028.V3 C67 2020 (print) | LCC HG4028.V3 (ebook) |

DDC 658.15—dc23

LC record available at <https://lcn.loc.gov/2020013692>

LC ebook record available at <https://lcn.loc.gov/2020013693>

# CONTENTS

[Cover](#)

[About the Authors](#)

[Preface](#)

[Acknowledgments](#)

[Part One Foundations of Value](#)

[Chapter 1 Why Value Value?](#)

[What Does It Mean to Create Shareholder Value?](#)

[Short-Termism Runs Deep](#)

[Shareholder Capitalism Cannot Solve Every Challenge](#)

[Can Stakeholder Interests Be Reconciled?](#)

[Consequences of Forgetting Value-Creation Principles](#)

[This Book](#)

[Notes](#)

[Chapter 2 Finance in a Nutshell](#)

[The Early Years](#)

[A New Concept](#)

[Should Lily and Nate Try to Maximize ROIC?](#)

[Going Public](#)

[Expansion into Related Formats](#)

[Some Lessons](#)

[Notes](#)

[Chapter 3 Fundamental Principles of Value Creation](#)

[The Relationship of Growth, ROIC, and Cash Flow](#)

[Balancing ROIC and Growth to Create Value](#)

[Some Examples](#)

[Implications for Managers](#)

[Economic Profit Combines ROIC and Size](#)

[Conservation of Value](#)

[The Math of Value Creation](#)

[Summary](#)

[Notes](#)

[Chapter 4 Risk and the Cost of Capital](#)

[Cost of Capital Is an Opportunity Cost](#)

[Companies Have Little Control over Their Cost of Capital](#)

[Create Better Forecasts, Not Ad Hoc Risk Premiums](#)

[Decide How Much Cash Flow Risk to Take On](#)

[Decide Which Types of Risk to Hedge](#)

[Summary](#)

[Notes](#)

[Chapter 5 The Alchemy of Stock Market Performance](#)

[Why Shareholder Expectations Become a Treadmill](#)

[The Treadmill's Real-World Effects](#)

[Decomposing TSR](#)

[Understanding Expectations](#)

[Implications for Managers](#)

[Notes](#)

## [Chapter 6 Valuation of ESG and Digital Initiatives](#)

[A Common Framework](#)

[Environmental, Social, and Governance \(ESG\) Concerns](#)

[Digital Initiatives](#)

[Closing Thoughts](#)

[Notes](#)

## [Chapter 7 The Stock Market Is Smarter Than You Think](#)

[Markets and Fundamentals: A Model](#)

[Markets and Fundamentals: The Evidence](#)

[Myths about Earnings](#)

[Myths about Earnings Management](#)

[Myths about Diversification](#)

[Myths about Company Size](#)

[Myths about Market Mechanics](#)

[Myths about Value Distribution](#)

[Summary](#)

[Notes](#)

## [Chapter 8 Return on Invested Capital](#)

[What Drives ROIC?](#)

[Competitive Advantage](#)

[Sustaining Return on Invested Capital](#)

[An Empirical Analysis of Returns on Invested Capital](#)

[Summary](#)

[Notes](#)

## [Chapter 9 Growth](#)

[Drivers of Revenue Growth](#)



[Growth and Value Creation](#)

[Why Sustaining Growth Is Hard](#)

[Empirical Analysis of Corporate Growth](#)

[Summary](#)

[Notes](#)

## [Part Two Core Valuation Techniques](#)

### [Chapter 10 Frameworks for Valuation](#)

[Enterprise Discounted Cash Flow Model](#)

[Economic Profit-Based Valuation Models](#)

[Adjusted-Present-Value Model](#)

[Capital Cash Flow Model](#)

[Cash-Flow-to-Equity Valuation Model](#)

[Problematic Modifications to Discounted Cash Flow](#)

[Alternatives to Discounted Cash Flow](#)

[Summary](#)

[Notes](#)

### [Chapter 11 Reorganizing the Financial Statements](#)

[Reorganizing the Accounting Statements: Key Concepts](#)

[Reorganizing the Accounting Statements: In Practice](#)

[Advanced Issues](#)

[Notes](#)

### [Chapter 12 Analyzing Performance](#)

[Analyzing Returns on Invested Capital](#)

[Analyzing Revenue Growth](#)

[Credit Health and Capital Structure](#)

[General Considerations](#)

## Notes

### Chapter 13 Forecasting Performance

Determine the Forecast's Length and Detail

Components of a Good Model

Mechanics of Forecasting

Advanced Forecasting

Concluding Thoughts

## Notes

### Chapter 14 Estimating Continuing Value

Recommended Formula for DCF Valuation

Continuing Value Using Economic Profit

Misunderstandings about Continuing Value

Common Pitfalls

Other Approaches to Continuing Value

Closing Thoughts

## Notes

### Chapter 15 Estimating the Cost of Capital

Calculating the Weighted Average Cost of Capital

Estimating the Cost of Equity

Estimating the After-Tax Cost of Debt

Forecasting Target Capital Structure to Weight WACC Components

Estimating WACC for Complex Capital Structures

Closing Thoughts

## Notes

### Chapter 16 Moving from Enterprise Value to Value per Share

[The Valuation Buildup Process](#)

[Valuing Nonoperating Assets](#)

[Valuing Interest-Bearing Debt](#)

[Valuing Debt Equivalents](#)

[Valuing Hybrid Securities and Noncontrolling Interests](#)

[Estimating Value per Share](#)

[Notes](#)

[Chapter 17 Analyzing the Results](#)

[Validating the Model](#)

[Sensitivity Analysis](#)

[Creating Scenarios](#)

[The Art of Valuation](#)

[Notes](#)

[Chapter 18 Using Multiples](#)

[Value Multibusiness Companies as a Sum of Their Parts](#)

[Use Forward Earnings Estimates](#)

[Use Net Enterprise Value Divided by Adjusted EBITA or NOPAT](#)

[Adjust for Nonoperating Items](#)

[Use the Right Peer Group](#)

[Alternative Multiples](#)

[Summary](#)

[Notes](#)

[Chapter 19 Valuation by Parts](#)

[The Mechanics of Valuing by Parts](#)

[Building Business Unit Financial Statements](#)

[Cost of Capital](#)

[Testing the Value Based on Multiples of Peers](#)  
[Summary](#)

[Notes](#)

## [Part Three Advanced Valuation Techniques](#)

### [Chapter 20 Taxes](#)

[Estimating Operating Taxes](#)

[Converting Operating Taxes to Operating Cash Taxes](#)

[Deferred Taxes on the Reorganized Balance Sheet](#)

[Valuing Deferred Taxes](#)

[Closing Thoughts](#)

[Notes](#)

### [Chapter 21 Nonoperating Items, Provisions, and Reserves](#)

[Nonoperating Expenses and One-Time Charges](#)

[Provisions and Their Corresponding Reserves](#)

[Closing Thoughts](#)

[Notes](#)

### [Chapter 22 Leases](#)

[Accounting for Operating Leases](#)

[Valuing a Company with Operating Leases](#)

[Adjusting Historical Financial Statements for Operating Leases](#)

[An Alternative Method for Valuing Operating Leases](#)

[Closing Thoughts](#)

[Notes](#)

### [Chapter 23 Retirement Obligations](#)

[Reorganizing the Financial Statements with Pensions](#)

[Pensions and the Cost of Capital](#)

[Relevering Beta to Estimate the Cost of Equity](#)

[Incorporating Pensions into the Value of Equity](#)

[Closing Thoughts](#)

[Notes](#)

[Chapter 24 Measuring Performance in Capital-Light Businesses](#)

[Capitalizing Expensed Investments](#)

[When Businesses Need Little or No Capital](#)

[Summary](#)

[Notes](#)

[Chapter 25 Alternative Ways to Measure Return on Capital](#)

[When ROIC Equals IRR](#)

[When CFROI Equals IRR](#)

[Choosing between ROIC and CFROI](#)

[Flaws of Other Cash Returns on Capital](#)

[Summary](#)

[Notes](#)

[Chapter 26 Inflation](#)

[Inflation Leads to Lower Value Creation](#)

[Historical Analysis in Times of High Inflation](#)

[Financial Projections in Real and Nominal Terms](#)

[Summary](#)

[Notes](#)

[Chapter 27 Cross-Border Valuation](#)

[Forecasting Cash Flows](#)

[Estimating the Cost of Capital](#)

[Applying a Domestic- or Foreign-Capital WACC](#)

[Incorporating Foreign-Currency Risk in the Valuation](#)

[Using Translated Foreign-Currency Financial Statements](#)

[Summary](#)

[Notes](#)

## [Part Four Managing for Value](#)

### [Chapter 28 Corporate Portfolio Strategy](#)

[Bet on the Horse—or the Jockey?](#)

[What Makes an Owner the Best?](#)

[The Best-Owner Life Cycle](#)

[Dynamic Portfolio Management](#)

[The Myth of Diversification](#)

[Constructing the Portfolio](#)

[Summary](#)

[Notes](#)

### [Chapter 29 Strategic Management: Analytics](#)

[Adopting a Granular Perspective](#)

[Taking the Enterprise View](#)

[Applying Value Drivers to Monitor Performance](#)

[Setting Targets](#)

[Monitoring Results](#)

[Summary](#)

[Notes](#)

### [Chapter 30 Strategic Management: Mindsets and Behaviors](#)

[Strong Governance](#)

[Debiased Decision Making](#)

[Synchronized and Streamlined Processes](#)

[Closing Thoughts](#)

[Notes](#)

## [Chapter 31 Mergers and Acquisitions](#)

[A Framework for Value Creation](#)

[Empirical Results](#)

[Archetypes for Value-Creating Acquisitions](#)

[Longer-Odds Strategies for Creating Value from Acquisitions](#)

[Estimating Operating Improvements](#)

[How to Pay: With Cash or Stock?](#)

[Focus on Value Creation, Not Accounting](#)

[Characteristics of Better Acquirers](#)

[Closing Thoughts](#)

[Notes](#)

## [Chapter 32 Divestitures](#)

[Value Creation from Divestitures](#)

[Why Executives Shy Away from Divestitures](#)

[Assessing Potential Value from Divestitures](#)

[Deciding on Transaction Type](#)

[Summary](#)

[Notes](#)

## [Chapter 33 Capital Structure, Dividends, and Share Repurchases](#)

[Practical Guidelines](#)

[A Four-Step Approach](#)

[Setting a Target Capital Structure](#)

[Payouts to Shareholders](#)

[Equity Financing](#)

[Debt Financing](#)

[Divestitures of Noncore Businesses](#)

[Creating Value from Financial Engineering](#)

[Summary](#)

[Notes](#)

[Chapter 34 Investor Communications](#)

[Objectives of Investor Communications](#)

[Intrinsic Value vs. Market Value](#)

[Which Investors Matter?](#)

[Communicating with Intrinsic Investors](#)

[Listening to Investors](#)

[Earnings Guidance](#)

[Meeting Consensus Earnings Forecasts](#)

[Summary](#)

[Notes](#)

[Part Five Special Situations](#)

[Chapter 35 Emerging Markets](#)

[Why Scenario DCF Is More Accurate than Risk Premiums](#)

[Applying the Scenario DCF Approach](#)

[Estimating Cost of Capital in Emerging Markets](#)

[Other Complications in Valuing Emerging-Markets Companies](#)

[Triangulating Valuation](#)

[Summary](#)

[Notes](#)

[Chapter 36 High-Growth Companies](#)



[A Valuation Process for High-Growth Companies](#)

[Uncertainty Is Here to Stay](#)

[Summary](#)

[Notes](#)

[Chapter 37 Cyclical Companies](#)

[Share Price Behavior](#)

[An Approach to Valuing Cyclical Companies](#)

[Implications for Managing Cyclical Companies](#)

[Summary](#)

[Notes](#)

[Chapter 38 Banks](#)

[Economics of Banking](#)

[Principles of Bank Valuation](#)

[Complications in Bank Valuations](#)

[Summary](#)

[Notes](#)

[Chapter 39 Flexibility](#)

[A Hierarchy of Approaches](#)

[Uncertainty, Flexibility, and Value](#)

[Managing Flexibility](#)

[Methods for Valuing Flexibility](#)

[Four Steps to Valuing Flexibility](#)

[Real-Option Valuation and Decision Tree](#)

[Analysis: A Numerical Example](#)

[Summary](#)

[Notes](#)

[Appendix A Discounted Economic Profit Equals Discounted Free Cash Flow](#)

[Proof Using Perpetuities](#)

[Generalized Proof](#)

[Notes](#)

[Appendix B Derivation of Free Cash Flow, Weighted Average Cost of Capital, and Adjusted Present Value](#)

[Enterprise Discounted Cash Flow](#)

[Adjusted Present Value](#)

[Notes](#)

[Appendix C Levering and Unlevering the Cost of Equity](#)

[Unlevered Cost of Equity](#)

[Levered Cost of Equity](#)

[Levered Beta](#)

[Unlevered Beta and Pensions](#)

[Appendix D Leverage and the Price-to-Earnings Multiple](#)

[Step 1: Defining Unlevered P/E](#)

[Step 2: Linking Net Income to NOPAT](#)

[Step 3: Deriving Levered P/E](#)

[Appendix E Other Capital Structure Issues](#)

[Pecking-Order Theory](#)

[Market-Based Rating Approach](#)

[Leverage, Coverage, and Solvency](#)

[Notes](#)

[Appendix F Technical Issues in Estimating the Market Risk Premium](#)

[Calculate Premium Relative to Long-Term Government Bonds](#)

[Use the Longest Period Possible](#)

[Use an Arithmetic Average of Longer-Dated \(e.g., Ten-Year\) Intervals](#)

[Notes](#)

[Appendix G Global, International, and Local CAPM](#)

[Global CAPM](#)

[International CAPM](#)

[Local CAPM](#)

[Notes](#)

[Appendix H A Valuation of Costco Wholesale](#)

[Modeling the Financial Statements](#)

[Reorganizing the Financial Statements](#)

[Forecasting the Financials](#)

[Estimating Continuing Value](#)

[Estimating the Weighted Average Cost of Capital](#)

[Valuing the Enterprise and Converting to Equity](#)

[Putting the Model to Work](#)

[Note](#)

[Appendix I Two-Stage Formula for Continuing Value](#)

[Note](#)

[Index](#)

[End User License Agreement](#)

## **List of Illustrations**

Chapter 1

[Exhibit 1.1 Correlation between Total Shareholder Returns and Employment Growth](#)

Chapter 2

[Exhibit 2.1 Expected Profit Growth at Logan's Stores Outpacing Lily's Dresses](#)

[Exhibit 2.2 Lily's Dresses Outperforming in Return on Invested Capital \(ROIC\) and Cash Flow](#)

[Exhibit 2.3 Expansion's Impact on ROIC and Cash Flow](#)

[Exhibit 2.4 Economic Profit Is Higher with Lower-Performing Stores in the Mix](#)

[Exhibit 2.5 Identical Results from DCF and Economic-Profit Valuation](#)

## Chapter 3

[Exhibit 3.1 Growth and ROIC Drive Value](#)

[Exhibit 3.2 Tale of Two Companies: Same Earnings, Different Cash Flows](#)

[Exhibit 3.3 Value Inc.: DCF Valuation](#)

[Exhibit 3.4 Translating Growth and ROIC into Cash Flow Available for Distribution](#)

[Exhibit 3.5 Value Inc.: Lower Initial Cash Flow at Higher Growth Rate](#)

[Exhibit 3.6 Translating Growth and ROIC into Value](#)

[Exhibit 3.7 Increasing Value: Impact of Higher Growth and ROIC](#)

[Exhibit 3.8 Value Creation by Type of Growth](#)

[Exhibit 3.9 Impact of Growth and ROIC on High- and Low-ROIC Companies](#)

[Exhibit 3.10 Impact on Value of Improving Margin vs. Capital Productivity](#)

## Chapter 4

[Exhibit 4.1 Volatility of Portfolio Return Declines with Diversification](#)

[Exhibit 4.2 Scenario Approach to Incorporating Nondiversifiable Risk](#)

[Exhibit 4.3 Example of Equivalent Risk Premiums for Different Probability Levels of Failure](#)

[Exhibit 4.4 Aggregating Projects Reduces Risk While Achieving High Expected Returns](#)

## Chapter 5

[Exhibit 5.1 Tyson Foods vs. J&J Snack Foods: Growth, Return on Invested Capital \(ROIC\), and Total Shareholder Returns \(TSR\)](#)

[Exhibit 5.2 TSR Driven by Revenue Growth, Margin, ROIC, and Changes in Expectations](#)

[Exhibit 5.3 Traditional vs. Enhanced TSR Decomposition](#)

[Exhibit 5.4 Earnings Yield: TSR with Zero Growth](#)

[Exhibit 5.5 Enhancing TSR Decomposition to Uncover Effects of Leverage](#)

[Exhibit 5.6 Tyson Foods vs. J&J Snack Foods: TSR Decomposition, 2013-2017](#)

## Chapter 7

[Exhibit 7.1 Model of Share Price Trading Boundaries](#)

[Exhibit 7.2 Distribution of Growth Rates for Growth and Value Stocks](#)

[Exhibit 7.3 Stock Performance against Bonds in the Long Run, 1801-2018](#)

[Exhibit 7.4 Economic Fundamentals Explain Long-Term Total Shareholder Returns](#)

[Exhibit 7.5 Estimating Fundamental Market Valuation Levels](#)

[Exhibit 7.6 Market Value vs. ROIC and Growth across Selected Industry Sectors](#)

[Exhibit 7.7 Market Value, ROIC, and Growth: Empirical Relationship](#)

[Exhibit 7.8 U.S. and European Equity Markets in High-Tech and Credit Bubbles](#)

[Exhibit 7.9 Impact of Largest Stocks on Overall Market Valuation](#)

[Exhibit 7.10 Relationship between Share Repurchases and Shareholder Returns](#)

[Exhibit 7.11 No Market Reaction to Announcement of Goodwill Impairment](#)

[Exhibit 7.12 No Clear Impact of U.S. GAAP Reconciliation](#)

[Exhibit 7.13 Earnings Growth of Least Volatile Companies: Not So Smooth](#)

[Exhibit 7.14 Effects of Inclusion Disappear after 45 Days](#)

[Exhibit 7.15 Delisting from U.S./UK Exchanges: No Value Impact on Companies from Developed Markets](#)

[Exhibit 7.16 U.S. Cross-Listing: No Impact on Valuation of Developed-Market Companies](#)

[Exhibit 7.17 Cumulative Average Abnormal Returns around Stock Splits](#)

[Exhibit 8.1 Company Profitability: Industry Matters](#)

[Exhibit 8.2 Sources of Competitive Advantage](#)

[Exhibit 8.3 ROIC of U.S.-Based Nonfinancial Companies, 1963-2017](#)

[Exhibit 8.4 Distribution of ROIC](#)

[Exhibit 8.5 Disaggregating ROIC of U.S.-Based Nonfinancial Companies, 1995-2017](#)

[Exhibit 8.6 Contribution of Life Sciences and Technology Industries to the Broader Economy, 1995-2017](#)

[Exhibit 8.7 ROIC by Industry, 1995-2017](#)

[Exhibit 8.8 Variation in ROIC within Industries, 2015-2017](#)

[Exhibit 8.9 Persistence of Industry ROIC](#)

[Exhibit 8.10 ROIC Decay Analysis](#)

[Exhibit 8.11 ROIC Decay through Economic Crisis and Recovery](#)

[Exhibit 8.12 ROIC Decay for Branded Consumer Goods](#)

[Exhibit 8.13 ROIC Transition Probability](#)

[Exhibit 8.14 ROIC Including and Excluding Goodwill, 1995-2017](#)

## Chapter 9

[Exhibit 9.1 Variation in Revenue Growth by Industry](#)

[Exhibit 9.2 Value Creation from Organic Growth Higher Than from Acquisitions](#)

[Exhibit 9.3 Value of Major Types of Growth](#)

[Exhibit 9.4 Variation in Growth over Product Life Cycle](#)

[Exhibit 9.5 Walmart and eBay: Growth Trajectories](#)

[Exhibit 9.6 The Challenge of Sustaining High Growth](#)

[Exhibit 9.7 Long-Term Revenue Growth for Nonfinancial Companies, 1965-2017](#)

[Exhibit 9.8 Distribution of Growth Rates](#)

[Exhibit 9.9 Volatile Growth by Industry](#)

[Exhibit 9.10 Revenue Growth Decay Analysis](#)

[Exhibit 9.11 Revenue Growth Decay through Economic Crisis and Recovery](#)

[Exhibit 9.12 Revenue Growth Transition Probability](#)

## Chapter 10

[Exhibit 10.1 Frameworks for DCF-Based Valuation](#)

[Exhibit 10.2 Enterprise Valuation of a Single-Business Company](#)

[Exhibit 10.3 Valuation of a Multibusiness Company](#)

[Exhibit 10.4 GlobalCo: Enterprise DCF Valuation](#)

[Exhibit 10.5 GlobalCo: Income and Shareholders' Equity Statements](#)

[Exhibit 10.6 GlobalCo: Balance Sheet](#)

[Exhibit 10.7 GlobalCo: Net Operating Profit after Taxes \(NOPAT\)](#)

[Exhibit 10.8 GlobalCo: Invested Capital and Total Funds Invested](#)

[Exhibit 10.9 GlobalCo: Forecast Revenue Growth and ROIC](#)



[Exhibit 10.10 GlobalCo: Projected Free Cash Flow](#)

[Exhibit 10.11 GlobalCo: Continuing Value](#)

[Exhibit 10.12 GlobalCo: Weighted Average Cost of Capital](#)

[Exhibit 10.13 GlobalCo: Economic-Profit Summary](#)

[Exhibit 10.14 GlobalCo: Valuation Using Discounted Economic Profit](#)

[Exhibit 10.15 GlobalCo: Valuation Using Adjusted Present Value](#)

[Exhibit 10.16 GlobalCo: Forecast of Interest Tax Shields](#)

[Exhibit 10.17 GlobalCo: Equity Cash Flow Summary](#)

[Exhibit 10.18 GlobalCo: Valuation Using Cash Flow to Equity](#)

## Chapter 11

[Exhibit 11.1 An Example of Invested Capital](#)

[Exhibit 11.2 An Example of NOPAT](#)

[Exhibit 11.3 An Example of Free Cash Flow](#)

[Exhibit 11.4 Costco: Balance Sheet](#)

[Exhibit 11.5 Costco: Invested Capital and Total Funds Invested](#)

[Exhibit 11.6 Sources of Financing](#)

[Exhibit 11.7 Costco: Reorganized Deferred Taxes](#)

[Exhibit 11.8 Costco: Income Statement](#)

[Exhibit 11.9 Costco: NOPAT and Its Reconciliation to Net Income](#)

[Exhibit 11.10 Costco: Tax Reconciliation Table](#)

[Exhibit 11.11 Costco: Taxes](#)

[Exhibit 11.12 Costco: Statement of Shareholders' Equity](#)

[Exhibit 11.13 Costco: Free Cash Flow and Cash Flow to Investors](#)

[Exhibit 11.14 Costco: Changes in Property, Plant, and Equipment](#)

[Exhibit 11.15 Costco: Impact of Capitalizing Operating Leases on ROIC](#)

## Chapter 12

[Exhibit 12.1 Costco versus Peer Group: Return on Invested Capital](#)

[Exhibit 12.2 Tapestry: Return on Invested Capital](#)

[Exhibit 12.3 Costco versus Peer Group: ROIC Tree, 2018](#)

[Exhibit 12.4 Costco versus Peer Group: Working Capital in Days on Hand](#)

[Exhibit 12.5 Airline A and Airline B: Financial and Operating Statistics](#)

[Exhibit 12.6 Operating Drivers of Labor Expenses to Revenues, 2018](#)

[Exhibit 12.7 Compass and Sodexo: Revenue Growth Analysis](#)

[Exhibit 12.8 Effect of Acquisitions on Revenue Growth](#)

[Exhibit 12.9 Hypothetical Retailers: Operating Statistics](#)

[Exhibit 12.10 Hypothetical Retailers: Organic Revenue Growth Analysis, 2018](#)

[Exhibit 12.11 Costco versus Peer Group: Measuring Coverage](#)

[Exhibit 12.12 Costco versus Peer Group: Operating Value to EBITDA](#)

## Chapter 13

[Exhibit 13.1 Sample Workbook](#)

[Exhibit 13.2 Honeywell: Current Liabilities in Balance Sheet](#)

[Exhibit 13.3 Costco: Sample Revenue Forecast](#)

[Exhibit 13.4 Partial Forecast of the Income Statement](#)

[Exhibit 13.5 Typical Forecast Drivers for the Income Statement](#)

[Exhibit 13.6 Completed Forecast of the Income Statement](#)

[Exhibit 13.7 Historical Balance Sheet](#)

[Exhibit 13.8 Forecast of Reported Taxes](#)

[Exhibit 13.9 Stock-versus-Flow Example](#)

[Exhibit 13.10 Typical Forecast Drivers and Ratios for the Balance Sheet](#)

[Exhibit 13.11 Partial Forecast of the Balance Sheet](#)

[Exhibit 13.12 Statement of Shareholders' Equity](#)

[Exhibit 13.13 Forecast Balance Sheet: Sources of Financing](#)

[Exhibit 13.14 Expected Inflation versus Growth in the Consumer Price Index](#)

## Chapter 14

[Exhibit 14.1 Continuing Value as a Percentage of Total Value](#)

[Exhibit 14.2 Impact of Continuing-Value Assumptions](#)

[Exhibit 14.3 Comparison of Total-Value Estimates Using Different Forecast Horizons](#)

[Exhibit 14.4 Valuation Using Five-Year Explicit Forecast Period](#)

[Exhibit 14.5 Valuation Using Eight-Year Explicit Forecast Period](#)

[Exhibit 14.6 Gradual Decline in Average ROIC According to Continuing-Value Formula](#)

[Exhibit 14.7 Innovation Inc.: Free Cash Flow Forecast and Valuation](#)

[Exhibit 14.8 Innovation Inc.: Valuation by Components](#)

[Exhibit 14.9 Innovation Inc.: Comparison of Continuing-Value Approaches](#)

[Exhibit 14.10 Correct and Incorrect Methods of Forecasting Base FCF](#)

[Exhibit 14.11 Continuing-Value Estimates for a Sporting Goods Company](#)

[Exhibit 14.12 Rates of Return Implied by Alternative Continuing-Value Formulas](#)

## Chapter 15

[Exhibit 15.1 Costco: Weighted Average Cost of Capital \(WACC\)](#)

[Exhibit 15.2 S&P 500 Real and Nominal Expected Returns, 1962-2018](#)

[Exhibit 15.3 Cumulative Returns for Various Intervals, 1900-2018](#)

[Exhibit 15.4 Cost of Equity Using the Capital Asset Pricing Model \(CAPM\)](#)

[Exhibit 15.5 Costco: Stock Returns, 2015-2019](#)

[Exhibit 15.6 Unlevered Beta Estimates by Industry](#)

[Exhibit 15.7 Effect of the Dot-Com Bubble on Beta](#)

[Exhibit 15.8 Costco: Cost of Equity Using the Fama-French Model, August 2019](#)

[Exhibit 15.9 Costco: Trading Data on Corporate Debt, August 2019](#)

[Exhibit 15.10 Yield Spread over U.S. Treasuries by Bond Rating, August 2019](#)

[Exhibit 15.11 Median Debt to Value by Industry, 2018](#)

## Chapter 16

[Exhibit 16.1 Sample Comprehensive Valuation Buildup](#)

[Exhibit 16.2 Coca-Cola Company: Publicly Traded Equity Investments, December 2018](#)

[Exhibit 16.3 Valuation of Equity Using Scenario Analysis](#)

[Exhibit 16.4 Square Convertible Debt, December 2018](#)

[Exhibit 16.5 Square Employee Options, December 2018](#)

## Chapter 17

[Exhibit 17.1 ROIC Impact of Small Changes: Sample Price and Cost Trends](#)

[Exhibit 17.2 Sample Sensitivity Analysis](#)

[Exhibit 17.3 Valuation Isocurves by Growth and Margin](#)

[Exhibit 17.4 Key Value Drivers by Scenario](#)

[Exhibit 17.5 Example of a Scenario Approach to DCF Valuation](#)

## Chapter 18

[Exhibit 18.1 Multiples for Packaged Foods Companies](#)

[Exhibit 18.2 Sample Sum-of-Parts Valuation](#)

[Exhibit 18.3 Pharmaceuticals: Backward- and Forward-Looking Multiples, September 2019](#)

[Exhibit 18.4 P/E Multiple Distorted by Capital Structure](#)

[Exhibit 18.5 Enterprise-Value-to-EBIT Multiple Distorted by Acquisition Accounting](#)

[Exhibit 18.6 Enterprise-Value-to-EBITDA Multiple Distorted by Capital Investment](#)

[Exhibit 18.7 Company M Peer Multiples Comparison](#)

[Exhibit 18.8 Enterprise Value to EBITA vs. Enterprise Value to NOPAT](#)

[Exhibit 18.9 Difference between Pre- and Posttax Earnings Multiples for U.S. Stock Market](#)

[Exhibit 18.10 Enterprise Value Multiples and Complex Ownership](#)

[Exhibit 18.11 Peer Groups by ROIC and Growth](#)

[Exhibit 18.12 PEG Ratios Distorted by ROIC Differences](#)