Completely Revised and Updated

VALUATION

MEASURING AND MANAGING THE VALUE OF COMPANIES

THIRD EDITION

UNIVERSITY EDITION

McKinsey & Company, Inc.
Tom Copeland • Tim Koller • Jack Murrin

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JOHN WILEY & SONS, INC.

New York • Chichester • Weinheim • Brisbane • Singapore • Toronto

This book is printed on acid-free paper. ♾

Published by John Wiley & Sons, Inc.
Published simultaneously in Canada.

Library of Congress Cataloging-in-Publication Data:

McKinsey & Company, Inc.
Valuation : measuring and managing the value of companies / Tom Copeland, Tim Koller, Jack Murrin — 3rd ed.
p. cm. — (Wiley frontiers in finance)
Includes index.
ISBN 0-471-36190-9 (cloth : alk. paper)
ISBN 0-471-36191-7 (paper ed.)
ISBN 0-471-39748-2 (cloth with CD)
ISBN 0-471-39749-0 (CD)
ISBN 0-471-39750-4 (Web spreadsheet)
ISBN 0-471-39751-2 (workbook)
1. Corporations—Valuation—Handbooks, manuals, etc. I. Copeland, Tom. II. Koller, Tim. III. Murrin, Jack. IV. Title. IV. Series.

HG4028.V3 C67 2000
658.15—dc21

00-036651

Printed in the United States of America.

10 9 8 7 6 5 4 3

About the Authors

The authors are all current or former partners of McKinsey & Co., Inc., and co-leaders of its corporate finance practice. Collectively, they have served more than 400 companies in 40 countries on corporate strategy, mergers and acquisitions, and value-based management.

McKinsey, & Company, Inc., is an international top management consulting firm. Founded in 1926, McKinsey advises leading companies around the world on issues of strategy, organization, and operations, and in specialized areas such as finance, information technology and the Internet, research and development, sales, marketing, manufacturing, and distribution.

Tom Copeland, a former partner of McKinsey & Co., was co-leader of the firm's corporate finance practice. Before joining McKinsey, he was a professor of finance at UCLA's Anderson Graduate School of Management. He was also an adjunct professor at New York University and is currently senior lecturer at the Massachusetts Institute of Technology. Tom is co-author of two leading textbooks, *Financial Theory and Corporate Policy* and *Managerial Finance.* He is currently leader of a corporate finance practice. He received his PhD from the University of Pennsylvania and his MBA from Wharton.

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Jack Murrin co-founded and co-led McKinsey's corporate finance practice, serving as a partner in the firm's New York and London offices. He has subsequently held senior strategic and financial positions at leading companies, most recently as senior managing director and head of corporate development at Bankers Trust Corp. Jack, a certified public accountant, holds an MBA from Stanford Business School.

Preface

The first edition of this book was published in 1990, yet it continues to attract readers around the world. We believe that the book has succeeded because it is grounded in universal economic principles. While we continue to improve and update the text as our experience grows, the fundamental principles do not change. They are valid across time and geography.

Our message is simple: Companies thrive when they create real economic value for their shareholders. Companies create value by investing capital at rates of return that exceed their cost of capital. This applies equally to U.S., European, and Asian companies. It applies equally to mature manufacturing companies and high-growth Internet companies. Only the implementation details are different.

When companies forget these simple truths, consequences are evident: hostile takeovers in the United States in the 1980s, the collapse of the bubble economy in Japan in the 1990s, the broad Southeast Asian crisis in 1998, and the persistent slow growth and high unemployment in Europe. While the underlying drivers of these events can be traced to a number of factors—most often inappropriate government policies or structural deficiencies—the lack of focus on value creation by managers is a key link in the chain leading to economic malaise or crisis.

We wrote this book for managers (and future managers) who want their companies to create value. It is a how-to book. We hope that it is a book that you will use again and again. If we have done our job well, it will soon be transformed with underlining, margin notations, and highlighting. This is no coffee-table book.

THE NEED TO MANAGE VALUE

In the last two decades, two kinds of thinking and activity—corporate finance and corporate strategy—have come together with a resounding crash.

Corporate finance is no longer the exclusive preserve of financiers. Corporate strategy is no longer a separate realm ruled by CEOs. Participants in the financial markets are increasingly involved in business operations through leveraged buyouts, hostile takeovers, and proxy contests. At the same time, chief executives have led their companies to become increasingly active players in the financial markets through mergers and acquisitions, restructurings, leveraged buyouts, share repurchases, and the like. Financing and investment are now inextricably connected. In the Internet world, for example, having a high share value is essential for making acquisitions and attracting talent.

This new reality presents a challenge to business managers: the need to *manage value* and to focus as never before on the value their corporate and business-level strategies are creating. In the quest for value, they find that they must consider such radical alternatives as selling the "crown jewels" or completely restructuring operations. And they need more systematic and reliable ways to look for opportunities in the turbulence resulting from the confluence of strategy and finance. As a result of restructuring, for instance, companies create new opportunities to acquire assets and businesses that may be worth more to them than to their original owners.

WHY THIS BOOK

This book began life as a handbook for McKinsey consultants. This beginning is reflected in the nature of the book. While the book draws on leading edge academic thinking, its purpose is practical application. It aims to demystify the field of valuation and to clarify the linkages between strategy and finance.

We believe that clear thinking about valuation and skill in using valuation to guide business decisions are prerequisites for success in today's competitive environment. Value needs to be understood clearly by CEOs, business managers, and financial managers alike. Too often, valuation has been left to experts. It has been viewed as a specialized discipline, rather than as an important tool for running the business better.

In this book, we hope to lift the veil on valuation by explaining, step-by-step, how to do it well. We spell out valuation frameworks that we use in our consulting work, and we bring these frameworks to life with detailed case studies that highlight the practical judgments involved in developing and using valuations. Most significantly, we discuss how to use valuation to make decisions about courses of action for a company.

This book can be used by a wide audience, including:

- *Business managers.* Now more than ever, leaders at the corporate and business-unit levels need to know how to assess the value of alternative strategies. They need to know how much value they can create through restructuring and other major transactions. Beyond this, they need to instill a managing-value mindset throughout their organizations.

- *Corporate finance practitioners.* Valuation approaches and the linkage between finance and strategy are important to chief financial officers, merger and acquisition specialists, corporate financial professionals, and corporate development managers and strategists. Value—how to assess it, create it, and communicate it—lies at the core of their roles and responsibilities.
- *Investors, portfolio managers, and securities analysts.* These professionals should find this volume a useful guide to applying cash flow valuation approaches. This is the purest form of fundamental securities analysis, since it links the value of the company directly to the economic returns it can generate from its businesses and assets.

WHEN TO USE IT

First and foremost, this book is written for those who want to improve their ability to create value for the stakeholders in their business. It will be of most use when you need to do the following:

- Estimate the value of alternative corporate and business strategies and the value of specific programs within those strategies. These strategies include such initiatives as new product introductions, capital expenditures, and joint venture agreements.
- Assess major transactions such as mergers, acquisitions, divestitures, recapitalizations, and share repurchases.
- Use value-based management to review and target the performance of business operations. It is essential to know whether and to what extent a business—as currently performing and configured—is creating value. Equally important is the need to understand which operating drivers have the greatest prospects for enhancing value.
- Communicate with key stakeholders, especially stockholders, about the value of the business. Our fundamental premise is that the value of a company derives from its ability to generate cash flows and cash-flow-based returns on investment. Many companies could do a much better job than they now do of communicating with the market and other players about the value of their plans and strategies. But first they need to become value managers themselves, and to understand what value they are creating and why.

INTELLECTUAL FOUNDATIONS

One of us was asked by the editor of *Le Figaro* in Paris, "What is new about your approach?" As far as the methodology is concerned, the answer is practically nothing. Valuation is an age-old methodology in finance with its intellectual origins in the present value method of capital budgeting and in the valuation approach developed by Professors Merton Miller and Franco Modigliani, both Nobel laureates, in their 1961 *Journal of Business* article entitled "Dividend Policy, Growth and the Valuation of Shares." Our intellectual debt is primarily to them, but others have gone far to popularize their approach. In particular, Professor Alfred Rappaport of Northwestern University (co-founder of ALCAR) and Joel Stern (of Stern Stewart & Co.) were among the first to extend the Miller-Modigliani entity valuation formula to real-world applications and to develop and market computer tools for making this an easy task for companies.

STRUCTURE OF THE BOOK

The book is organized into three parts. Part One provides a managerial perspective on valuation and managing shareholder value. Part Two is a step-by-step approach to valuing a company. Part Three deals with more complex valuation issues and special cases.

In Part One, we discuss the link between business strategies and value. In Chapter 1, we make the case that managing shareholder value is a central role and challenge for senior managers. In Chapter 2, we develop a picture of what it means to be a value manager. We do this through a detailed case study based on the actual experiences of a CEO who needed to restructure his company and build a new managing-value philosophy throughout it. Chapter 3 summarizes the basic principles of value creation through a simple case example, focusing on the intuition behind the approach, not the mathematics. Chapter 4 attempts to sort through the confusing jargon about various metrics that you will come across by providing a simple, yet comprehensive framework. Chapter 5 provides the empirical evidence supporting our discounted cash flow view of valuation. Chapter 6 describes the softer aspects of implementing value management. Finally, Chapter 7 provides an overview of value creation in the context of mergers, acquisitions, and alliances.

Part Two—Chapters 8 through 13—is a self-contained handbook for doing valuations of single-business companies. In it we describe a general approach to discounted cash flow valuations and how to implement it. This includes how to analyze historical performance, forecast free cash flows, estimate the appropriate opportunity cost of capital, identify sources of value, and interpret results. As a further aid to the practitioner, we walk through the valuation of a company (Heineken) from the outside, using publicly available information.

Part Three—Chapters 14 through 22—is devoted to valuation in more complex situations. We have included chapters on valuing high growth Internet companies, multibusiness companies, cyclical companies, banks, and insurance companies. Three chapters deal with issues related to valuation outside the United States: valuing foreign subsidiaries, valuing companies outside the United States, and valuing companies in emerging markets. Finally, we explore the application of option pricing theory to assets, liabilities, and investment decisions.

WHAT'S NEW ABOUT THE THIRD EDITION

In the 10 years between the first and third editions, we have gained experience applying valuation in our consulting work and have received considerable feedback from readers. Building on these experiences, we have extensively rewritten and updated core chapters, adding more detail on practical issues that managers and analysts face. We have updated most of the examples and empirical analysis. We have also added six new chapters. Entirely new chapters have been added on valuing Internet companies, valuing cyclical companies, and valuing insurance companies. Valuing companies in emerging markets now warrants its own chapter. Finally, we have created two chapters early in the book, one that provides a nonmathematical, intuitive overview of the principles of value creation, and one that provides an overarching framework for cutting through the confusion of management performance metrics.

VALUATION SPREADSHEET

An Excel spreadsheet valuation model is available on CD-ROM. This valuation model is similar to the model we use in practice. Practitioners will find the model easy to use in a variety of situations: mergers and acquisitions, valuing business units for restructuring or value-based management, or testing the implications of major strategic decisions on the value of your company. We accept no responsibility for any decisions based on your inputs to the model. If you would like to purchase the spreadsheet, ISBN 0-471-39749-0, please call 1-800-225-5945 or visit www.WileyValuation.com to purchase the model via web download.

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Acknowledgments

No book is solely the effort of its authors. This book is certainly no exception, especially since it grew out of the collective work of McKinsey's corporate finance practice and the experiences of consultants throughout the world.

First, we would like to thank Ennius Bergsma. Ennius initiated the development of McKinsey's corporate finance practice in the mid-1980s and was instrumental in bringing the three authors together. He encouraged us to turn our original internal McKinsey valuation handbook into a real book for an external audience. He mustered the internal support and sponsorship that we needed to make this happen. Ennius has always been a key discussion partner for us. He also co-wrote Chapter 1, *Why Value Value?*

Fred Gluck deserves our special thanks. Fred played a vital role in creating a knowledge building culture within McKinsey. As the firm's Managing Director, he was like a godfather to many of us and our colleagues. Fred was a vocal supporter of creating a strong corporate financial advisory practice at McKinsey.

For the third edition, we would like to thank several people who worked closely with us on key chapters. David Krieger prepared the analysis and valuation of Heineken that appears throughout the book. Susan Nolen contributed to Chapter 6, *Making Value Happen,* drawing from an internal project she was leading. Mimi James guided us through the complexities of valuing companies in emerging market countries in Chapter 19. Alice Hu brought us into the Internet world, helping us write Chapter 15, *Valuing Dot.coms.* Marco de Heer's thesis on valuing cyclical companies formed the basis for Chapter 16. Vladimir Antikarov and Phil Keenan were steadfast thought partners for the option pricing work in Chapter 20. Gabriel Garcia and Mimi James were instrumental in developing Chapter 22 on valuing insurance companies. Valerie Udale and Annemarie van Neck updated the Excel valuation model, making it easier to navigate and more flexible.

Alice Hu, Irina Grigorenko, Kim Vogel, David Twiddy, Chris Jones, David Wright, and Sandeep Vaswani provided analytical support and number crunching for the third edition. We would also like to thank Petri Allas, André Annema, Olivier Berlage, Richard Dobbs, George Fenn, Marc Goedhart, Kevin Kaiser, and Pieter de Wit for ideas, formulas, and debates.

We would like to reiterate our thanks to all those who contributed to the first two editions. We owe a special debt to Dave Furer for help and late nights developing the original drafts of this book more than 10 years ago. The first two editions and this edition drew on work, ideas, and analyses from Carlos Abad, Buford Alexander, Pat Anslinger, Ali Asghar, Bill Barnett, Dan Bergman, Peter Bisson, the late Joel Bleeke, Steve Coley, Johan Depraetere, Mikel Dodd, Will Draper, Christian von Drathen, David Ernst, Bill Fallon, Russ Fradin, Alo Ghosh, Keiko Honda, Phil Kholos, Shyanjaw Kuo, Kurt Losert, Bill Lewis, Perry Moilinoff, Mike Murray, Juan Ocampo, John Patience, Bill Pursche, Frank Richter, David Rothschild, Silvia Stefini, Konrad Stiglbrunner, Ahmed Taha, Bill Trent, Jon Weiner, Jack Welch, and David Willensky.

For help in preparing the manuscript and coordinating the flow of paper, e-mails and phone calls between four countries and seven time zones, we owe our thanks to our assistants, Marlies Zwaan and Betsy Bellingrath. Geoff Andersen designed the updated and attractive exhibits that accompany the text.

Allan Gold edited the manuscript and kept reminding us that we were writing for the reader, not for ourselves. Allan was also a great sounding board for weary authors. Nancy Nichols also contributed to the editing of the book.

The University edition of this book includes end-of-chapter questions and an instructor's resource guide based on material in this book. Additionally, a professional workbook accompanies this book. We would like to thank Bill Foote for preparing the pedagogy for the University edition and for creating the *Valuation Workbook*. This workbook is an important complement to the text for practitioners and students alike.

We couldn't have devoted the time and energy to this book without the support and encouragement of McKinsey's corporate finance and strategy practice leadership, in particular Christian Caspar and Ron Hulme. We also thank Alan Kantrow for his sage counsel.

Thank you as well to our editors at Wiley, Pamela van Giessen and Claudio Campuzano, and to Nancy Marcus Land and her staff at Publications Development Company for copyediting and production.

Finally, thank you to Maggie Copeland, Melissa Koller, and Wendy Murdock, our most important supporters. This book truly would not have been possible without your encouragement and understanding.

T. C.
T. K.
J. M.

Contents

Part One

Company Value and the Manager's Mission

1

Why Value Value?

This book is about how to value companies and use information about valuation to make wiser business decisions. Underlying it is our basic belief that managers who focus on building shareholder value will create healthier companies than those who do not. We also think that healthier companies will, in turn, lead to stronger economies, higher living standards, and more career and business opportunities for individuals.

There has always been, and continues to be, vigorous debate on the importance of shareholder value relative to other measures such as employment, social responsibility, and the environment. The debate is often cast in terms of shareholder versus stakeholder. At least in ideology and legal frameworks, the United States and the United Kingdom have given the most weight to the idea that shareholders are the owners of the corporation, the board of directors is their representative and elected by them, and the objective function of the corporation is to maximize shareholder value.

In continental Europe, an explicitly broader view of the objectives of business organizations has long been more influential. In many cases, it has been incorporated into the governance structures of the corporation form of organization. Under Dutch law, for example, the board of a Structural N.V.—effectively a large corporation—is mandated to ensure the continuity of the business, not to represent shareholders in the pursuit of value maximization. Similar philosophies lay at the foundation of corporate governance in Germany and Scandinavia.

Our principal aim in this book is *not* to analyze, resolve, or even stoke the debate between shareholder and stakeholder models. However, we believe managers should focus on value creation for two reasons. First, in most developed countries, shareholder influence already dominates the agenda

Our thanks to Ennius Bergsma, who co-wrote this chapter.

of top management. Second, shareholder-oriented economies appear to perform better than other economic systems and other stakeholders do not suffer at the hands of shareholders.

ASCENDANCY OF SHAREHOLDER VALUE

Early in 2000, Vodafone AirTouch acquired the German conglomerate Mannesmann, the first major hostile takeover of a German company by a non-German company.[1] This event signaled the broadening acceptance of the shareholder value model in Europe. It might now be argued that managers in most of the developed world must focus on building shareholder value. Four major factors have played a role in the ascendancy of shareholder value:

1. The emergence of an active market for corporate control in the 1980s, following the apparent inability of many management teams to respond effectively to major changes in their industries.
2. The growing importance of equity-based features in the pay packages of most senior executives in the United States and many in Europe as well.
3. The increased penetration of equity holdings as a percentage of household assets, following the strong performance of the U.S. and European equity markets since 1982.
4. The growing recognition that many social security systems, especially in continental Europe and Japan, are heading for insolvency.

The Market for Corporate Control

In 1982, the U.S. economy started to recover from a prolonged period of high inflation and low economic growth. Many industrial sectors required major restructuring. For example, the invention of the radial tire had more than doubled the effective life of tires, leading to huge overcapacity. Rather than eliminating excess capacity and taking cash out of the business, most major tire manufacturers continued investing heavily, setting themselves up for a rude awakening later in the decade.

At the same time, pension funds and insurance companies began to provide increasingly large pools of funds to new kinds of investors, principally leveraged buyout (LBO) groups such as Kohlberg, Kravis, and Roberts (KKR) and Clayton, Dubilier, and Rice. In 1981, of 2,328 mergers and acquisitions in

[1] Technically, Mannesmann agreed to a negotiated transaction, but only when it was clear that the shareholders would vote in favor of Vodafone AirTouch.