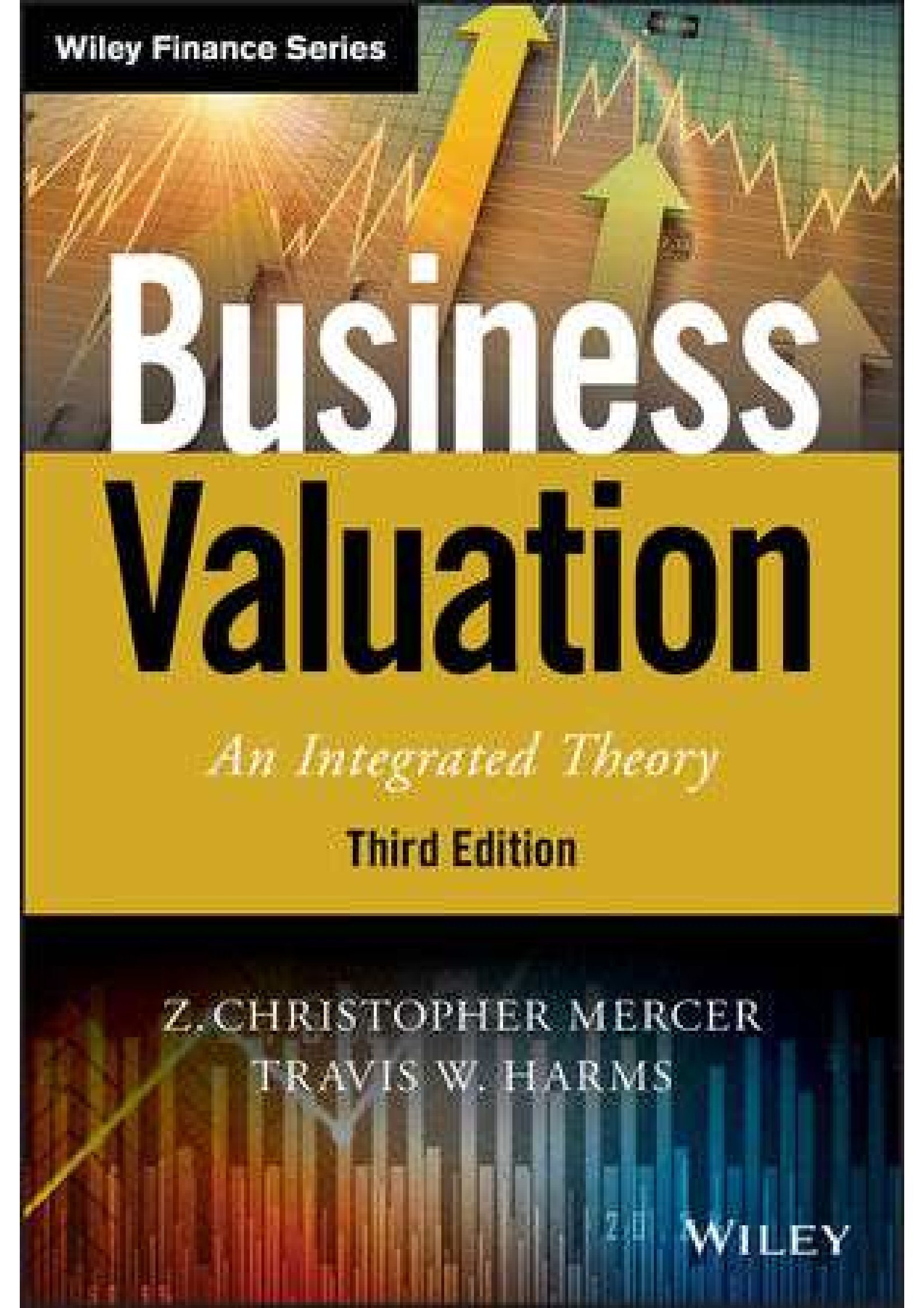


Wiley Finance Series

The background of the cover features a complex abstract design. In the upper half, there are several large, upward-pointing arrows in shades of yellow and orange, set against a backdrop of a line graph with multiple peaks and valleys. The lower half of the cover is a solid yellow band. Below this band, the bottom section has a dark background with a blurred image of a bar chart with vertical bars in various colors (red, orange, blue, green).

# Business Valuation

*An Integrated Theory*

**Third Edition**

Z. CHRISTOPHER MERCER  
TRAVIS W. HARMS

WILEY

# **Business Valuation**

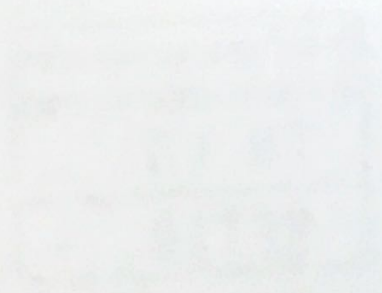
*An Integrated Theory*

*of the Business*

*Value*

*by CHRISTOPHER MEXER*

*and JAMES W. HARRIS*

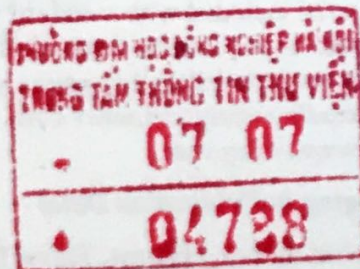


*Volume 1*

# Business Valuation

*An Integrated Theory*  
Third Edition

Z. CHRISTOPHER MERCER  
TRAVIS W. HARMS



WILEY



Copyright © 2021 by Z. Christopher Mercer and Travis W. Harms. 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 [www.wiley.com/go/permissions](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: Mercer, Z. Christopher, author. | Harms, Travis W., author. | John Wiley & Sons, Ltd., publisher.

Title: Business valuation : an integrated theory / Z. Christopher Mercer, Travis W. Harms.

Description: Third edition. | Hoboken, New Jersey : John Wiley & Sons, Inc., [2021] | Includes index.

Identifiers: LCCN 2020025969 (print) | LCCN 2020025970 (ebook) | ISBN 9781119583097 (cloth) | ISBN 9781119583110 (adobe pdf) | ISBN 9781119583103 (epub) | ISBN 9781119583134 (obook)

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

Classification: LCC HG4028.V3 M47 2021 (print) | LCC HG4028.V3 (ebook) | DDC 658.15/5—dc23

LC record available at <https://lcn.loc.gov/2020025969>

LC ebook record available at <https://lcn.loc.gov/2020025970>

Cover Design: Wiley

Cover Images: © pedrosek/Shutterstock, ranjith ravindran/Shutterstock

Printed in the United States of America.

SKY10033007\_020122



# Contents

## Introduction

xiii

What's New in the Third Edition?

xiv

Who Should Read This Book?

xvii

## PART ONE

### Conceptual Overview of the Integrated Theory

#### CHAPTER 1

##### The World of Value

3

Introduction

3

Common Questions

3

The World of Value

4

The Organizing Principles

5

Summary

16

#### CHAPTER 2

##### The Integrated Theory (Equity Basis)

19

Introduction

19

Common Questions

20

The Fundamental Valuation Model

21

The Conceptual Levels of Value

23

Symbolic Notation for the Integrated Theory

27

The Marketable Minority Interest Level of Value

29

Introduction to the Control Levels of Value

35



Strategic Control Level of Value	51
Firmwide Levels versus the Shareholder Level of Value	58
The Nonmarketable Minority Level of Value	60
The Integrated Theory of Business Valuation on an Equity Basis	67
Summary	67

**CHAPTER 3****The Integrated Theory (Enterprise Basis) 71**

Introduction	71
Comparing the Levels of Value: Equity and Enterprise Bases	73
Final Comparisons of the Equity and Enterprise Bases	77
Summary	79

**PART TWO****Valuing Enterprise Cash Flows****CHAPTER 4****Income Approach (Cash Flows) 83**

Introduction	83
Reconciling Single-Period Capitalization and Discounted Cash Flow Methods	84
Defining Enterprise Cash Flows	90
Defining Equity Cash Flows	95
Reinvestment Rates and Interim Growth Rates	99
Terminal Growth Rates	104
Expected Cash Flows and the Integrated Theory	108
Marketable Minority Interest Level: Public Company Equivalent	115
Financial Control Level: Private Equity Cash Flows	124



---

Strategic Control Level; Strategic Acquirer Cash Flows	128
Assessing the Reasonableness of Projected Enterprise Cash Flows	136
Conclusion	139
 <b>CHAPTER 5</b>	
<b>Income Approach (Discount Rate)</b>	<b>141</b>
Introduction	141
Return Basics: Realized versus Required Returns	142
Components of the Weighted Average Cost of Capital	148
Market Participants and the WACC	165
The Levels of Value and the WACC	169
Assessing Overall Reasonableness	175
 <b>CHAPTER 6</b>	
<b>Market Approach (Guideline Public Companies)</b>	<b>177</b>
Introduction	177
Relationship of the Income and Market Approaches	178
What Do Observed Public Company Valuation Multiples Mean?	180
Adjusting Valuation Multiples for Differences in Risk and Growth	199
Guideline Public Company Multiples and the Enterprise Levels of Value	214
Assessing Overall Reasonableness	219
 <b>CHAPTER 7</b>	
<b>Market Approach (Guideline Transactions)</b>	<b>221</b>
Introduction	221
Attributes of Guideline Transaction Data	222



Drawing Valuation Inferences from Guideline Transaction Data	225
Minority Interest Discounts Inferred from Observed Control Premiums	240
Guideline Transaction Multiples and the Levels of Value	242
Assessing Overall Reasonableness	244
Appendix 7-A: A Historical Perspective on the Control Premium and Minority Interest Discount	247

### **PART THREE**

#### **Valuing Shareholder Cash Flows**

##### **CHAPTER 8**

##### **Restricted Stock Discounts and Pre-IPO Studies 271**

Introduction	271
An Overview of Restricted Stock Discounts	275
Review of the FMV/Stout Restricted Stock Database	306
Pre-IPO Discounts	317
Conclusion	325

##### **CHAPTER 9**

##### **Introduction to the QMDM (Quantitative Marketability Discount Model) 327**

Introduction	327
Potential Valuation Approaches at the Shareholder Level	328
A Shareholder Level Discounted Cash Flow Model in Outline	331
Economic Factors Giving Rise to the Marketability Discount	338
Conclusion	346
Appendix 9-A: Liquidity and Marketability	349



<b>CHAPTER 10</b>	
<b>The QMDM Assumptions in Detail</b>	<b>359</b>
Introduction	359
Assumption 1: Expected Holding Period for the Investment ( $HP$ )	360
Assumption 2A: Expected Dividend Yield ( $D\%$ )	368
Assumption 2B: Expected Growth of Dividends ( $G_D$ )	377
Assumption 2C: Timing of Dividend Receipt	378
Assumption 3A: The Expected Growth Rate in Value ( $G_V$ )	379
Assumption 3B: Adjustments to the Terminal Value	385
Assumption 4: Required Holding Period Return ( $R_{hp}$ )	385
Conclusion	399
 <b>CHAPTER 11</b>	
<b>Applying the QMDM</b>	<b>401</b>
Introduction	401
Comprehensive Example of the QMDM in Use	401
Condensed QMDM Examples	414
The Uniform Standards of Professional Appraisal Practice and the QMDM	427
 <b>CHAPTER 12</b>	
<b>Applying the Integrated Theory to Tax Pass-Through Entities</b>	<b>435</b>
Introduction	435
The Nature of the S Corporation Benefit	437
The Firmwide Level Value of S Corporations	440
Other Observations Regarding Relative Value at the Firmwide Levels	443
The Shareholder Level Value of S Corporations	446

S Corporations and the Tax Cuts and Jobs Act of 2017	458
Conclusion	467
<b>About the Authors</b>	<b>469</b>
<b>Index</b>	<b>477</b>