# Accounting for Derivatives and Hedging











Mark A. Trombley

# Accounting for Derivatives and Hedging

Mark A. Trombley University of Arizona



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#### McGraw-Hill Higher Education

A Division of The McGraw-Hill Companies

#### ACCOUNTING FOR DERIVATIVES AND HEDGING

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This book is printed on acid-free paper.

67890 FGR/FGR 098

ISBN 978-0-07-244044-7 MHID 0-07-244044-9

Publisher: Brent Gordon

Executive editor: Stewart Mattson Editorial coordinator: Heather Sabo Marketing manager: Richard Kolasa

Senior project manager: Kimberly D. Hooker Senior production supervisor: Michael McCormick Coordinator freelance design: Artemio Ortiz Jr. Senior producer, Media technology: Ed Przyzycki Senior supplement producer: Rose M. Range

Cover design: Graphic Visions Typeface: 10/12 Times Roman Compositor: Techbooks

Printer: Quebecor World Fairfield Inc.

"Portions of FASB Statement No. 133, Accounting for Derivative Instruments and Hedging Activities, and Statement 133 Implementation Issue C11, Interpretations of Clearly and Closely Related in Contracts That Qualify for the Normal Purchases and Sales Exception," copyrighted by the Financial Accounting Standards Board, 401 Merritt 7, P.O. Box 5116, Norwalk, Connecticut 06856-5116, U.S.A., are reprinted with permission. Complete copies of these documents are available from the FASB."

#### Library of Congress Cataloging-in-Publication Data

Trombley, Mark A.

Accounting for derivatives and hedging / Mark A. Trombley.

p. cm.

Includes index.

ISBN 0-07-244044-9 (alk. paper)—ISBN 0-07-119920-9 (internationally : alk. paper)

1. Derivative securities—Accounting. 2. Hedging (Finance)—Accounting. I. Title.

HF5681.F54 T76 2003

657'.8333-dc21

2002016602

www.mhhe.com

# About the Author



Mark A. Trombley is Associate Professor and Eller Fellow in Accounting at the University of Arizona. He has served as visiting professor at the University of Washington and as a lecturer at San Jose State University. From 1993 to1998 he was a KPMG Peat Marwick Research Fellow. His academic accomplishments include publications in the Accounting Review, Contemporary Accounting Research, Journal of Accounting, Auditing and Finance, and many other scholarly and professional journals. He also acts as editorial referee for many of the top accounting journals.

Professor Trombley received an MBA degree from the University of California at Berkeley and a PhD in Management from the University of Washington. Prior to entering the academic world, he spent nine years in public accounting, most recently as senior audit manager at a Big-5 CPA firm.

### **Preface**

#### **PURPOSE OF THIS BOOK**

In establishing standards to account for derivatives transactions and hedging activities, the Financial Accounting Standards Board (FASB) has created a detailed and complex system of accounting rules. This set of regulations presents challenges to many accountants who tend to have only limited exposure to derivatives and to be somewhat unprepared to address the conceptual issues presented by complex hedging transactions. The purpose of the book is to provide a framework to allow accountants and businesspeople not only to understand the accounting issues related to derivatives and hedging but also to become familiar with the mechanics and uses of common types of derivatives, particularly in hedging applications.

This book is suitable for use at the undergraduate level as part of an advanced accounting course, an accounting theory course, an omnibus-style current accounting topics course, or similar courses offered in Masters of Accounting, 150-hour, or MBA programs. The book could also serve as the basis for an independent study course at the undergraduate or graduate level.

A word of caution is in order. Although users of this book will be able to develop a basic understanding of common types of derivatives and of the accounting issues related to using common derivatives in hedging applications, many theoretical and practical problems arising in this area are well beyond the scope of this book. As of this writing, the FASB's Derivatives Implementation Group (DIG) had issued nearly 200 Issues Summaries. Each of these represents a response to a complex problem that practicing accountants concluded could not be resolved without the involvement of the DIG experts. Because of the immense variety of derivatives types and the myriad uses that creative businesspeople find for them, it is likely that even after reading this book, an accountant will face issues in practice for which the solution is not immediately clear.

#### **OVERVIEW**

The book is organized into six chapters:

- Chapter 1 introduces the idea of hedging and explains the mechanics of several basic types of derivatives commonly used in hedging applications.
- Chapter 2 provides initial exposure to the derivatives accounting framework under which the required accounting is determined by the designation of derivatives as either fair value or cash flow hedges. Each accounting variation is illustrated using a single type of derivative, commodity futures contracts.

- Chapter 3 deals with accounting for hedging applications using interest rate swaps, one of the most commonly used derivatives for managing interest rate risk. The material in the chapter primarily deals with plain vanilla interest rate swaps, although nongeneric swaps are covered briefly.
- Chapter 4 focuses on other interest rate hedging, including hedging involving interest rate futures, interest rate options, caps, and floors. This chapter also provides exposure to the design of effective hedges using duration methods.
- Chapter 5 addresses foreign-currency hedging, probably the most widely practiced hedging activity for US companies. Coverage includes the uses of currency forward contracts and options to hedge exposed foreign currency assets and liabilities, committed and forecasted foreign currency transactions, and net investments in foreign operations.
- Chapter 6 introduces various topics, including accounting for embedded derivatives, disclosure requirements, auditing issues, and international accounting rules.

#### **USING THE BOOK**

#### **Prerequisites**

Significant effort has gone into reducing the amount of prior knowledge required for the comprehension of the material in this text. In particular, the accountant with minimal prior exposure to topics in finance should not be seriously disadvantaged because finance concepts are explained when they are first used. Knowledge of some basic material is assumed, however, including concepts from financial accounting and the ability to make present value calculations. Familiarity with Microsoft Excel® spreadsheet functions are also useful because they are referred to in certain parts of the text and in some end-of-chapter problems to simplify calculations.

#### **Pedagogical Conventions**

Because of the potential complexity of the material in the derivatives and hedging areas, a number of simplifying conventions have been adopted in presenting the material included in the book, including these:

- Focus on common derivatives types. A large number of exotic derivatives
  types are used today, and more are continually being invented. No attempt has
  been made to include encyclopedic coverage of every type of derivative. Instead, the text focuses on derivatives types that are most commonly encountered in practice, including futures, swaps, forwards, and options. By understanding the applications and accounting requirements for these basic types of
  derivatives, the accountant will have a suitable foundation from which to analyze more complex derivatives when he or she encounters them in practice.
- Account terminology. Every derivative must be shown at estimated fair value,
   which means that the primary issue in accounting for derivatives is whether

the change in fair value should be recognized in earnings immediately or deferred and recognized in earnings later. To emphasize this issue and to eliminate potentially confusing account titles, an account called "Earnings" is used when an entry that affects earnings is made. In practice, of course, more descriptive income statement account names would be used.

• Shortcut method. The "shortcut" accounting method allowed by the accounting rules greatly simplifies the accounting for interest rate swaps. The swap examples in the text make the assumption that the swaps qualify for the shortcut method. Although the text discusses the accounting when swaps fail to qualify for the shortcut method, none of the examples illustrates the accounting for this situation. There are two reasons for this. First, the computations required in accounting for swaps that do not qualify for the shortcut method are complex, and the additional complexity is not justified by any incremental conceptual insights. Second, as discussed in Chapter 6, swaps that fail to qualify for the shortcut method produce unpredictable earnings volatility, so companies tend to minimize the use of such swaps. This means that most, if not all, swaps encountered in practice qualify for the shortcut method.

#### **Additional Resources**

Additional resources available or planned to support the use of the book include:

- Solutions Manual with detailed solutions to end-of-chapter questions, exercises, and problems.
- Text Website (www.mhhe.com/trombley) with links to online resources including articles, tutorials, glossaries, and other materials.

# Acknowledgments

I would like to thank the following reviewers who provided useful input on the content, format, and organization of this book:

Eric Carlsen

Kean University

Patrick Fort

University of Alaska at Anchorage

**Donald Hicks** 

Christopher Newport University

Bob Jensen

Trinity University

William Kimball

California State University at Northridge

David Koeppen

Boise State University

Mary Lea McAnally

University of Texas at Austin

Joyce Strawser

Seton Hall University

Walter Teets

Gonzaga University

Special thanks go to Arlette Wilson (Auburn University) for numerous detailed comments and corrections on the final draft of the book. I also thank the editorial and production team members at McGraw-Hill/Irwin including Stewart Mattson, Heather Sabo, and Kim Hooker, for their hard work. Sue Trombley diligently corrected my grammar on several drafts of the manuscript. I am grateful to Kevin Stoklosa, FASB Project Manager, for patiently answering my many questions. Any remaining errors in the book, of course, are my responsibility.

Mark A. Trombley

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