Praise for
CORPORATE VALUATION MODELING + CD

“Valuation is regarded as more art than science. Keith has deciphered the complex and technical skills developed over years of investment banking and corporate finance experience into a logical, usable book that I have not seen after years of M&A work. More than a list of formulae, Keith builds the foundations of very robust knowledge of model logic, construction, and customization, while subtly building a library of extremely useful formula combinations and putting the tools in the workshop for you. This is the book I needed ten years ago.”

—Adam Quinn, Senior Relationship Manager, Professional Services, St. George Institutional and Corporate Bank, and Chief Investment Officer, TAC Capital Investment and Advisory

“This guide enables the user to set out data and assumptions, understand logic, and deliver results. Once you’re in control of your model you can apply different scenarios, stress testing, and become the ‘go to person’ on a deal.”

—Anthony Ditchburn, Associate Director, Financial Institutions Credit, Wholesale Banking, a division of National Australia Bank Limited

Corporate Valuation Modeling takes you step by step through the process of creating a powerful corporate valuation model. Each chapter skillfully discusses the theory of the concept, followed by Model Builder instructions that inform you of every step necessary to create the template model. Many chapters also include a validation section that shows techniques and implementations that you can employ to make sure the model is working properly. Engaging and informative, this reliable resource:

• Provides a comprehensive, integrated approach to modeling a corporate entity with the primary goal of determining a firm value

• Contains a Tool Box section at the end of each chapter that assists those who may be less skilled in Excel techniques and functions

• Walks you through the full process of constructing a fully dynamic corporate valuation model

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Corporate Valuation Modeling
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Another book about financial modeling? You might be rolling your eyes and muttering under your breath, “Why? Aren’t there plenty of books that cover this topic?” Yet, you still chose to look inside and see what this one is about. The motivation behind looking at financial modeling books is most likely related to a desire to learn financial modeling in an easy-to-understand, time-efficient, low-cost manner. However, after poring over a few books with the words Financial Modeling in the title, you might be left feeling like you know more about specific skills and topics, but not a working financial model. Perhaps these books have given you an understanding of how the model should work, but you are confused as to how to practically implement the information provided. Ultimately, an easy-to-understand, integrated analysis still eludes you.

There’s a vast sea of approaches authors take with financial modeling books. Some try to encompass every concept in finance and provide examples of how to implement each concept in Excel. Those are the cookbooks of finance. Introduce a topic, show an Excel example, and then move on to the next topic. Others take a similar approach, but vary the medium. Rather than use Excel, they offer books on financial modeling entirely in code with languages such as VBA or C++. Although many of these books can be highly informative, they often leave it up to the reader to figure out how to connect the individual concepts.

The answer, some say, is books that focus on specific concepts. Rather than covering all possible finance topics, these books hone in on specific areas such as fixed income or derivatives. The problem with many of these books is they often rely too much on delving into the details of the topic and demonstrating formula derivations, instead of dedicating time to showing how to implement the concept. Or, they discuss the implementation and show some screenshots, but fail to provide clear instructions, open functions, and code, much less a complete working model.

To me, the best type of financial modeling book is one that is dedicated to a specific topic within finance, offers multiple examples of implementation, is written in a clear and easy-to-understand manner, and provides a completely integrated example model. There are a few books that have been written in this fashion on topics such as credit risk, interest rates, options, and structured finance, but I find that few have addressed corporate valuation in this manner.

It seems to me that corporate valuation modeling too often gets lumped together in the general financial modeling book category. Since a company encompasses many topics in finance it may seem appropriate to cover all of those topics and then assume that the reader can value the company. Unfortunately, connecting the
concepts theoretically and implementing those connections on a computer can be just
as hard as understanding the individual concept or computer-based implementation
in the first place.

Take depreciation as an example. Some books show how to use Excel’s prebuilt
depreciation functions to create a depreciation schedule. Others discuss depreciation
concepts. Yet, few show readers how to create the depreciation schedule in a way that
is automated with the associated asset’s creation. Further, the prebuilt depreciation
functions in Excel need to be turned off so the asset is not overdepreciated depending
on the forecast period of the model. Then, once we get the schedule correct, we have
to accumulate the depreciation on the balance sheet, remove it from different sections
of certain financial statements, and perhaps add it back when dealing with valuation
calculations.

This book attempts to address many of these shortfalls by providing a compre-
prehensive, integrated approach to modeling a corporate entity with the primary goal of
determining a firm’s value. Theory is introduced to guide the reader along the valua-
tion process and connect each concept with the prior and future concepts. Along the
way, clear, step-by-step instructions are provided that cover every cell of the included
example model. No sections are hidden, password protected, or incomplete.

Beyond concept and implementation issues, after teaching courses on corporate
valuation modeling hundreds of times, I have also come to realize that an added
layer of complexity is the preexisting skill level of readers. Some are very new to
finance and Excel, others new to just finance, others new to just Excel, and some
are seasoned in both, but wanting to learn more. While the text itself addresses the
finance topics and shows an integrated implementation, the Excel skills can be a
challenge for some and a bore for others who already know them. For this reason,
there is a Toolbox at the end of each chapter that provides additional information
on the Excel functions and techniques that are used in the chapter. This way, the text
is not full of background knowledge that would bore the intermediate Excel users,
but the content is still there for the beginning Excel user to learn more.

I hope that this book is a valuable resource for people new to finance, seasoned
professionals engaged in analysis, and experienced executives trying to learn what
their junior staff is doing all night long. I also continually strive to improve my
books, find the best possible methods to teach, and ensure that every reader learns.
If you are confused by any section or topic related to this book or my other books, if
you think you may have found an error, or if you just want to discuss finance-related
topics, please feel free to review the Books and Blog section of my company’s web site
www.enstructcorp.com or personally e-mail me at keith.allman@enstructcorp.com.

KEITH A. ALLMAN
Acknowledgments

My father always suggested that I focus on math and quantitative subjects. Early on, I rebelled, thinking he couldn’t be further off topic from what I would do in my career. Given that this is my third book on financial modeling, I suppose I should state that he was right. My mother was less adamant about the subject, but to not acknowledge her would undermine the value of her support even to this day. While on the family track, I should note two more family members who have influenced this work. The first is my sister, who was my academic rival when we were children. That energy fomented the fervor with which I have approached all subjects of interest to this day. The second is my grandfather, who lives and breathes the stock market. I am convinced our conversations subconsciously caused my gravitation toward finance. As for more direct acknowledgments, Susan Jane Brett reviewed the book in detail and offered critical comments that led to revisions and clarifications. Her thoroughness is very much appreciated. Also, all of my corporate valuation class participants over the past three years have contributed to this book through the study of their learning methodologies, the development of the curriculum for their courses, and the critical thought caused by their questions. Finally, I would like to thank all of the staff at John Wiley & Sons who work on my books, especially Bill Falloon, Meg Freeborn, and Mary Daniello.

K.A.A.
CHAPTER 1

Introduction

Corporate valuation modeling consistently proves challenging because it requires a thorough understanding of two bodies of thought that demand disparate skill sets: finance and technology. On the finance side, we must understand fundamental topics such as time value of money, growth rates, debt calculations, and other subjects that blend accounting, economics, and mathematics. In particular, accounting is a subject that corporate valuation analysts must be well versed in because generally accepted accounting principles (GAAP) or international financial reporting standards (IFRS) need to be followed to make sure analyses are consistent. On the technology side, we must select a program or programming language to utilize and understand the technical functionality of that program well. In many cases, the program is Excel, which requires knowledge of a number of program-specific functions and techniques in order to transfer the financial concepts to an orderly, dynamic analysis. Prior to jumping right to the construction process, we will take a step back and examine the overall process.

OVERVIEW OF THE CORPORATE VALUATION PROCESS

The corporate valuation analysis process itself is quite complex with many moving parts that are intricate to stitch together. Taking a reverse approach, that is, starting with the firm value and tracing back its calculations and components, is a good method of gaining an overview of this process.

Projecting Cash Flow

Figure 1.1 provides a graphical overview of the discounted cash flow valuation process. First, we should establish that we will take a discounted cash flow approach to determining corporate value. Many other methods exist, such as relative valuation and adjusted present value, but the most popular detailed analysis is to discount expected future cash flows.

Discounting expected cash flows is a method used in many areas of finance. Bond pricing, securities analysis, and project valuation all use discounted cash flow techniques. Any discounted cash flow technique has two general components: future