

Business Valuation Body of Knowledge

Second Edition

Workbook

Shannon P. Pratt, CFA, FASA, MCBA

with

Alina V. Niculita and Doug Twitchell



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Business Valuation Body of Knowledge Workbook

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“This book is great. I especially like the cost of capital chapter... It’s one of the few books where there is a succinct description of the different methods to determine the cost of capital. I thoroughly enjoyed reading it and it was a great refresher for me.”

*Mary McCarter, ASA, CFA
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Dr. Pratt develops and teaches business valuation courses for the American Society of Appraisers and the American Institute of Certified Public Accountants, and frequently speaks on business valuation at national legal, professional, and trade association meetings. He also has developed a seminar on business valuation for judges and lawyers.

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Doug Twitchell is the co-developer of *Pratt's Stats*[™] and co-manager of *BVMarketData.com*sm, which contains *Pratt's Stats*[™], *Public Stats*[™], the *Mergerstat/Shannon Pratt's Control Premium Study*[™], *BIZCOMPS*[®], *The FMV Restricted Stock Study*[™], and *The Valuation Advisors' Lack of Marketability Discount Study*[™]. He holds a bachelor of science in mechanical and industrial engineering from Clarkson University, a master's in business administration from Portland State University, and an advanced graduate certificate in computational finance from the Oregon Graduate Institute of Science and Technology. Mr. Twitchell has been working at Business Valuation Resources, LLC, since December 1996. Before that, he worked as a mechanical engineer for Fortune 500 companies.

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Preface

The *Business Valuation Body of Knowledge Workbook* is designed as a hands-on practical learning experience to supplement the *Business Valuation Body of Knowledge*. It is suitable as a tutorial for beginning appraisers or as a refresher for experienced appraisers. (Even the most experienced professionals will pick up a few things they might have overlooked. Things change rapidly, and this workbook is up-to-date through late 2002.) It is also excellent preparation for those sitting for business valuation credential exams given by the American Institute of Certified Public Accountants (AICPA), American Society of Appraisers (ASA), Institute of Business Appraisers (IBA), National Association of Certified Valuation Analysts (NACVA), Canadian Institute of Chartered Business Valuators (CICBV), or Association for Investment Management and Research (AIMR).

This workbook is also suitable for attorneys, corporate finance officers, or business intermediaries who will be using business appraisals rather than conducting them.

It can be used with either the first or second edition of *Business Valuation Body of Knowledge*, although the workbook tends to put more weight on changes since the first edition. With one exception, the chapter order is the same in both editions and in the workbook. The workbook does not include any questions for Chapter 22, “Sample Case: Shannon’s Bull Market.”

This workbook covers all the major concepts of the core knowledge related to business appraisal, but it does not include valuation of options or intangible assets.

Like the *Cost of Capital Workbook*, this book is organized in two sections:

1. Section One: Questions
2. Section Two: Answers

The answers section contains not only the answers to the questions, but also some explanation where some discussion beyond the answer would provide useful insight on the subject.

As in the *Cost of Capital Workbook*, four different types of questions (where applicable) are used:

1. Multiple Choice Questions
2. True or False Questions
3. Fill-in-the-Blank Questions
4. Exercises

The exercises include all the basic computational concepts commonly used by business appraisers.

Eight hours of CPE credit are available for those who successfully complete the 40-question self-study examination at the back of the workbook. These hours are *in addition* to the eight hours of CPE credit available for the examination at the back of the *Business Valuation Body of Knowledge* book. (The *Cost of Capital*, 2nd edition, and *Cost of Capital Workbook* are structured the same way, so a total of 32 hours of CPE credit may be earned by completing all four exams.)

I hope that readers will be enriched by this educational opportunity, and I encourage feedback at the e-mail address below.

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I am very grateful for the continuing support from John Wiley & Sons, especially John DeRemegis, executive editor, Judy Howarth, associate editor, and Louise Jacob, associate managing editor.

Finally, to Tanya Hanson, project manager on this workbook, and Laurie Morrisey, publications department assistant, I would like to express my thanks and appreciation for their outstanding efforts.

Shannon Pratt
Portland, Oregon
November, 2002

Basic Formulas

BASIC PRESENT VALUE FORMULA

$$PV = \frac{NCF_1}{(1+k)} + \frac{NCF_2}{(1+k)^2} + \dots + \frac{NCF_n}{(1+k)^n}$$

where:

- PV = Present value
 $NCF_1 \dots NCF_n$ = Net cash flow (or other measure of economic income) expected in each of the periods 1 through n , n being the final cash flow in the life of the investment
 k = Cost of capital applicable to the defined stream of net cash flow
 n = Number of periods in the series

BASIC CAPITALIZATION FORMULA

$$PV = \frac{NCF_1}{c}$$

where:

- PV = Present value
 NCF_1 = Net cash flow expected in the first period immediately following the valuation date
 c = Capitalization rate

FORMULA FOR CONVERTING DISCOUNT RATE TO CAPITALIZATION RATE

$$c = k - g$$

where:

- c = Capitalization rate
 k = Discount rate (cost of capital) for the subject investment
 g = Expected long-term sustainable growth rate in the cash flow available to the subject investment