

Financial Valuation Workbook

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Financial Valuation Workbook

Step-by-Step Exercises and Tests to Help You Master Financial Valuation

Fourth Edition with Website

JAMES R. HITCHNER

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Preface

The Financial Valuation Workbook (FVW) contains both educational exercises that guide the reader through a complete business valuation and valuation tools that professionals can use in preparing business valuations. It also contains detailed information on how to run a successful valuation practice. It is structured to be used on a standalone basis. It is also a companion text to Financial Valuation Applications and Models, 4th edition (FVAM) (John Wiley & Sons), in which the subject matter contained in the workbook is expanded upon. This workbook contains basic, intermediate, and advanced topics on valuing businesses conveyed in a series of easily understandable exercises with comprehensive answers.

FVW is targeted to the following professionals and groups that are typically exposed to financial valuation issues:

Appraisers

Appraisal associations and societies

Actuaries

Attorneys

Bankers

Business brokers

Business executives, including CEOs, CFOs, and tax directors

Business owners

CPAs

Estate and gift planners

Financial analysts

Government agencies including the IRS, SEC, and DOL

Insurance agents

Investment advisors

Investment bankers

Judges

Pension administrators

Stockbrokers

FVW contains eight chapters, each with a different purpose.

Chapter 1 contains more than 80 exercises that have been placed throughout excerpts of an actual business valuation report presenting numerous valuation topics, including rates of return, the capitalized cash flow method of the income approach, and the guideline company transaction and guideline public company methods of the market approach.

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Chapter 2 contains comprehensive answers to the exercises in Chapter 1.

Chapter 3 includes more than 300 exercises that comprise a companion piece and correlate to the relevant chapters of *Financial Valuation Applications and Models*, 4th edition. These exercises/tests can be used to prepare for business valuation certification exams or for university professors in the academic field or as reinforcement to learn the material.

Chapter 4 includes more than 450 ValTips that are extracted from the companion book, *FVAM*. This summary of ValTips can serve professionals as a quick reference source of important concepts, application issues, and pitfalls to avoid.

Chapter 5 presents a Valuation Process Flowchart to allow professionals to follow a more structured process in applying and documenting the income approach.

Chapter 6 highlights strategies for marketing, managing, and making money in a valuation services practice. It discusses risk management in regard to reports and engagement letters, and gives examples of each. This chapter also includes information on how to keep up technically; find, train, and retain staff; and delegate authority.

Chapter 7 includes guidelines for practice management workflow procedures, which starts with the initial prospective client call, highlights checking points through the valuation analysis, then moves on to draft and final record, then to file retention and engagement closure.

Chapter 8 includes more than 40 checklists that can be used by professionals in documenting their valuations. It can also be used by less-experienced professionals as a guide in applying valuation concepts.

This book also includes a companion website, which can be found at www.wiley.com/go/fvamwb4e. The website includes the exhibits and forms found in Chapter 7, and the checklists found in Chapter 8.

Financial valuations are very much affected by specific facts and circumstances. As such, the views expressed in these written materials do not necessarily reflect the professional opinions or positions that the authors would take in every business valuation assignment, or in providing business valuation services in connection with an actual litigation matter. Every situation is unique and differing facts and circumstances may result in variations of the applied methodologies. Furthermore, valuation theory, applications, and methods are continually evolving and, at a later date, may be different from what is presented here.

Nothing contained in these written materials shall be construed to constitute the rendering of valuation advice; the rendering of a valuation opinion; the rendering of an opinion as to the propriety of taking a particular valuation position; or the rendering of any other professional opinion or service.

Business valuation services are necessarily fact-sensitive, particularly in a litigation context. Therefore, the authors urge readers to apply their expertise to particular valuation fact patterns that they encounter, or to seek competent professional assistance as warranted in the circumstances.

Disclaimer Excluding Any Warranties: This book is designed to provide guidance to analysts, auditors, management, and other professionals, but is not to be used as a substitute for professional judgment. Procedures must be altered to fit each assignment. The reader takes sole responsibility for implementation of material from this book. The implied warranties of merchantability and fitness of purpose and all other warranties, whether expressed or implied, are excluded from this transaction, and shall not apply to this book. None of the authors, editors, reviewers, or publisher shall be liable for any indirect, special, or consequential damages.

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James R. Hitchner, CPA/ABV/CFF, ASA, is the managing director of Financial Valuation Advisors, Inc., in Ventnor City, New Jersey. He is also president of the Financial Consulting Group, LLC, a national association of professional services firms dedicated to excellence in valuation, financial, and litigation/forensic consulting. He is CEO of Valuation Products and Services, LLC, a company that develops educational resources for valuation analysts and fraud/forensics practitioners. He holds the American Institute of Certified Public Accountants (AICPA) specialty designations of Accredited in Business Valuation (ABV) and Certified in Financial Forensics (CFF) and is an Accredited Senior Appraiser (ASA) with the American Society of Appraisers. Mr. Hitchner has over 37 years of experience in valuation services. He has often testified as a qualified expert witness on valuations in federal and state courts in numerous states.

He has coauthored over 20 courses, taught over 60 courses, published over 100 articles, and made over 350 conference presentations and webinars. Mr. Hitchner is editor/coauthor of the book Financial Valuation Applications and Models (FVAM), 4th edition (2017), coauthor of the book Financial Valuation Workbook (FVW), 4th edition (2017), and coauthor of the book Valuation for Financial Reporting: Fair Value, Business Combinations, Intangible Assets, Goodwill, and Impairment Analysis, 3rd edition (2011)—all published by John Wiley & Sons. He is coauthor of PPC's Guide to Business Valuations, 27th edition (2017), published by Thomson Reuters and coauthor of A Consensus View, Q&A Guide to Financial Valuation (2016), published by Valuation Products and Services, LLC. He is editor in chief of Financial Valuation and Litigation Expert, a bimonthly journal that presents views and tools from some of the leading experts in valuation, forensics/fraud, and litigation services.

Mr. Hitchner is an inductee in the AICPA Business Valuation Hall of Fame and was twice a recipient of the AICPA's Business Valuation Volunteer of the Year award. He was also one of the only four members of the original AICPA Business Valuation Standards Writing Task Force and served the entire six years up to the June 2007 official release of the standards. Mr. Hitchner is past chairman of the Business Valuation Committee of the Georgia Society of CPAs, past member of the AICPA Business Valuation Subcommittee, past member of the AICPA ABV Exam Committee, and past chairman of the ABV Exam Review Course Committee. He has a Bachelor of Science degree in engineering from the University of Pittsburgh and Master of Business Administration degree from Rider University.

Valuation Case Study Exercises

1.1 INTRODUCTION

The purpose of this chapter is to highlight and discuss important concepts in valuation through a series of exercises. These exercises have been intermittently placed in excerpts of a valuation report. You should attempt to complete these exercises as you read the report with reasoning and emphasis on an explanation of your conclusion. The authors' solutions to these exercises can be found in Chapter 2.

The following case presents selected excerpts from a business valuation report that, in its entirety, was in full compliance with the AICPA's Statements on Standards for Valuation Services VS Section 100 and the Uniform Standards of Professional Appraisal Practice. For more information on reports and standards compliance, see Chapters 11 and 12 of *Financial Valuation Applications and Models*, 4th edition. This report format is one of many that analysts can use in presenting business valuations. The schedules have been included and are referenced throughout. Some of the terms, numbers, sources, and other data have been changed for ease of presentation.

1.2 THE VALUATION REPORT

January 2, 20X6

Sherman E. Miller, Esq. Miller & Hanson 4747 Washington Street, Suite 1740 St. Louis, Missouri 12345

Re: Fair Market Value of a 100% Equity Interest in National Fastener & Machine Co. as of September 1, 20X5

Dear Mr. Miller:

At your request XYZ Appraisal Associates LLC (XYZ) was retained to prepare a valuation analysis and appraisal (valuation engagement and conclusion of value) and detailed/comprehensive appraisal report (the report) to assist you and your client, Ms. Louise Atkins, in the determination of the fair market value of a 100 percent

equity interest in National Fastener & Machine Co. (National Fastener or the Company). This interest is a controlling interest and is therefore marketable. The value conclusion is considered as a cash or cash-equivalent value. The valuation date is September 1, 20X5 (the Valuation Date). This valuation and report are to be used only as of this date and are not valid as of any other date.

EXERCISE 1 Which of the following is the as of date for valuation?

- a. Any time within one year
- b. As of a single point in time
- c. As of a single point in time or six months later
- d. Date that the report is signed

We have performed a valuation engagement and present our detailed report in conformity with the Statements on Standards for Valuation Services VS Section 100 (SSVS) of the American Institute of Certified Public Accountants (AICPA). SSVS defines a valuation engagement as "an engagement to estimate value in which a valuation analyst determines an estimate of the value of a subject interest by performing appropriate procedures, as outlined in the AICPA Statements on Standards for Valuation Services, and is free to apply the valuation approaches and methods he or she deems appropriate in the circumstances. The valuation analyst expresses the results of the valuation engagement as a conclusion of value, which may be either a single amount or a range."

SSVS addresses a detailed report as follows: "The *detailed report* is structured to provide sufficient information to permit intended users to understand the data, reasoning, and analyses underlying the valuation analyst's conclusion of value."

are allowed under SSVS?	of reports

¹Statements on Standards for Valuation Services VS Section 100, American Institute of Certified Public Accountants, Appendix C, Glossary of Additional Terms, Section .82, p. 40.

Note: The American Society of Appraisers uses the term *estimate* as part of a limited appraisal. The AICPA usage of the term is equivalent to the result of the highest scope of work specified by the ASA, which is for an Appraisal.

This valuation was performed to assist in the determination of the value solely for purposes of internal operational and tax planning, and the resulting estimate of value should not be used for any other purpose, or by any other party for any purpose, without our express written consent.

EXERCISE 3 The purpose of the valuation of National Fastener is to management in internal operational and tax planning. What other purpothere?	

Our analysis and report are in conformance with the 20X6–20X7 Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the Appraisal Standards Board of The Appraisal Foundation,² and the ethics and standards of the American Society of Appraisers (ASA) and IRS business valuation development and reporting guidelines, the National Association of Certified Valuators and Analysts (NACVA), and the Institute of Business Appraisers (IBA).³

EXERCISE 4 If the analyst belongs to more than one valuation organization with standards, that analyst must comply with the standards of each organization he or she belongs to.

- a. True
- b. False

²The Appraisal Standards Board (ASB) of the Appraisal Foundation develops, interprets, and amends the Uniform Standards of Professional Appraisal Practice (USPAP) on behalf of appraisers and users of appraisal services. The Appraisal Foundation is authorized by Congress as the source of Appraisal Standards and Appraiser Qualifications. USPAP uses the terms appraisal and appraisal report, which are defined in pages U-1 and U-72, respectively. SSVS uses the terms valuation engagement and detailed report, which are defined in pages 54 and 22–23, respectively. USPAP also uses the term appraiser while SSVS uses the term valuation analyst. We use these terms interchangeably in this report.

³Analyst should reference other credentialing organizations as appropriate. Department of the Treasury, Internal Revenue Service, IRM 4.48.4, Engineering Program, Business Valuation Guidelines. "This material is the product of the Valuation Policy Council (VPC), a crossfunctional committee with executive representation from LMSB, SBSE, and Appeals. The VPC was established in 2001 to assist IRS leadership in setting direction for valuation policy that cuts across functional lines, and in identifying process improvements to improve compliance and better utilize resources." Issued July 1, 2006.

Our analysis is also in conformance with Revenue Ruling 59-60, which outlines the approaches, methods, and factors to be considered in valuing shares of capital stock in closely held corporations for federal tax purposes. Revenue Ruling 59-60 is often also considered as useful guidance in valuations performed for nontax purposes.

The standard of value is fair market value defined in Revenue Ruling 59-60 as "the price at which the property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts." Revenue Ruling 59-60 also defines the willing buyer and seller as hypothetical as follows: "Court decisions frequently state in addition that the hypothetical buyer and seller are assumed to be able, as well as willing, to trade and to be well informed about the property and concerning the market for such property." Furthermore, fair market value assumes that the price is transacted in cash or cash equivalents. Revenue Ruling 59-60, while used in tax valuations, is also used in many nontax valuations.

Fair market value is also defined in a similar way in the SSVS⁴ as "the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts."

EXERCISE 5 Which of these are standards of value?

- a. Fair market value, fair value financial reporting, investment value
- b. Fair value investment reporting, fair value state actions, intrinsic value
- c. Investment value, intrinsic value, equal value
- d. Fair market value, equal value, investment value

The premise of value is going concern.⁵ The liquidation premise of value was considered and rejected as not applicable, as the going concern value results in a higher value for the interest than the liquidation value, whether orderly or forced.

⁴AICPA Statements on Standards for Valuation Services VS Section 100, page 44, Appendix B, *International Glossary of Business Valuation Terms*, which has been jointly adopted by the AICPA, American Society of Appraisers (ASA), Canadian Institute of Chartered Business Valuators (CICBV), National Association of Certified Valuators and Analysts (NACVA), and the Institute of Business Appraisers (IBA).

⁵The *International Glossary of Business Valuation Terms* defines *going concern* as "an ongoing operating business enterprise," and *going concern value* as "the value of a business enterprise that is expected to continue to operate into the future. The intangible elements of *going concern value* result from factors such as having a trained work force, an operational plant, and the necessary licenses, systems, and procedures in place."

In our conclusion of value, we considered the following relevant factors, which are specified in Revenue Ruling 59-60:

- The history and nature of the business
- The economic outlook of the United States and that of the specific industry in particular
- The book value of the subject company's stock and the financial condition of the business
- The earning capacity of the company
- The dividend-paying capacity of the company
- Whether or not the firm has goodwill or other intangible value
- Sales of the stock and size of the block of stock to be valued
- The market price of publicly traded stocks or corporations engaged in similar industries or lines of business

Our analysis included, but was not limited to, the above-mentioned factors.

1.2.1 Understanding with the Client and Scope of Work

Per SSVS, the valuation analyst should establish an understanding with the client. "The understanding with the client reduces the possibility that either the valuation analyst or the client may misinterpret the needs or expectations of the other party. The understanding should include, at a minimum, the nature, purpose, and objective of the valuation engagement, the client's responsibilities, the valuation analyst's responsibilities, the applicable assumptions and limiting conditions, the type of report to be issued, and the standard of value to be used."

Furthermore, "A restriction or limitation on the scope of the valuation analyst's work, or the data available for analysis, may be present and known to the valuation analyst at the outset of the valuation engagement or may arise during the course of a valuation engagement. Such a restriction or limitation should be disclosed in the valuation report (see paragraphs .52m, .68e, and .71n)."

Our appraisal is in accordance with the Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the American Society of Appraisers and the Appraisal Foundation. "The objective of an appraisal is to express an unambiguous opinion as to the value of a business, business ownership interest, or security, which opinion is supported by all procedures that the appraiser deems to be relevant to the valuation." It is based on all relevant information available to the appraiser as of the valuation date; the appraiser conducts appropriate procedures to collect and analyze all information expected to be relevant to the valuation, and the appraiser "considers all conceptual approaches deemed to be relevant."

⁶Statements on Standards for Valuation Services VS Section 100, American Institute of Certified Public Accountants, Appendix C, Glossary of Additional Terms, Section .17, p. 6.

⁷Ibid., Section .19, p. 6.

⁸ASA Business Valuation Standards, BVS-1 General Requirements for Developing a Business Valuation.

⁹Ibid.

In accordance with the Scope of Work Rule in USPAP, we must:

- 1. Identify the problem to be solved;
- 2. Determine and perform the scope of work necessary to develop credible assignment results; and
- 3. Disclose the scope of work in the report.¹⁰

To gain an understanding of the operations of National Fastener, we reviewed Company financial information as provided by management and interviewed Company management. To understand the environment in which National Fastener operates, we researched the status of and trends in the various industries that have an impact on it. We also studied economic conditions as of the valuation date and their impact on National Fastener and the industry. To understand the Company's financial condition, we analyzed its financial statements as available.

We considered all valuation approaches and methods and applied the most appropriate methods from the income, asset, and market approaches to value to derive an opinion of value of the subject equity interest (100 percent controlling, marketable interest). Our conclusion of value reflects these findings, our judgment and knowledge of the marketplace, and our expertise in valuation.

Our valuation is set out in the report, which contains the following sections:

- History and Nature of the Business
- General Economic and Industry Outlook
- Book Value and Financial Position
- Approaches to Value
- Income Approach
- Market Approach
- Reconciliation of Valuation Methods
- Conclusion of Value
- Appendixes
 - Appendix A—Assumptions and Limiting Conditions
 - Appendix B—Valuation Representation/Certification
 - Appendix C—Professional Qualifications of the Appraiser
 - Appendix D—Other Sources Consulted
 - Appendix E—Exhibits

In performing our work, we were provided with and/or relied upon various sources of information, including (but not limited to):

- Audited financial statements for National Fastener for the fiscal years ended December 31, 20X0, through December 31, 20X4
- Internal interim financial statements for National Fastener for the eight months ending August 31, 20X5, and August 31, 20X4

¹⁰USPAP 2016–2017, p. 14.

- Tax returns for the Company for the fiscal years ended December 31, 20X0, through 20X4
- Information regarding the management and shareholders of National Fastener
- Information regarding the Company's history and current operations
- National Fastener's Articles of Incorporation and Bylaws
- Data from Duff & Phelps LLC, 20X5 Valuation Handbook—Guide to Cost of Capital
- Federal Reserve statistical releases
- Current and future economic conditions as forecast by various sources, listed in the Appendix
- Miscellaneous other information

The procedures employed in valuing the subject interest in National Fastener included such steps as we considered necessary, including (but not limited to):

- An analysis of National Fastener's financial statements
- An analysis of National Fastener management's 20X5 expectations and other information supplied by management
- Discussions with management
- An analysis of the fastener industry, as well as the domestic automotive industry
- An analysis of the general economic environment as of the valuation date, including investors' equity and debt-return expectations
- An analysis of other pertinent facts and data resulting in our conclusion of value

There were no restrictions or limitations in the scope of our work or data available for analysis.

Based on our analysis as described in this valuation report, and the facts and circumstances as of the valuation date, the estimate of value as of September 1, 20X5, of a 100 percent equity interest in National Fastener & Machine Co., on a control, marketable basis is \$30,100,000.

This conclusion is subject to the Statement of Assumptions and Limiting Conditions and to the Valuation Analyst's Representation/Certification found in Appendixes A and B of this report. We have no obligation to update this report or our conclusion of value for information that comes to our attention after the date of this report.

EXERCISE 6 Valuation conclusions can be presented as:

- a. A range of values
- b. A single value
- c. An estimate of value
- d. All of the above

EXERCISE 7 This valuation is being done on a marketable, control interest basis. It is also on a control standalone basis. Name six levels of value that are considered in a valuation.
1
2
4
6

Distribution of this letter and report and associated results, which are to be distributed only in their entirety, is intended and restricted to you and your client, solely to assist you and your client in the determination of the fair market value of the subject interest for internal operational and tax planning purposes and is valid only as of September 1, 20X5. This letter and accompanying report are not to be used with, circulated, quoted, or otherwise referred to in whole or in part for any other purpose, or to any other party for any purpose, without our express written consent.

As is usual in appraisal practice, the approaches and methodologies used in our work did not comprise an examination or any attest service in accordance with generally accepted accounting principles, the objective of which is an expression of an opinion regarding the fair presentation of financial statements or other financial information, whether historical or prospective, presented in accordance with generally accepted accounting principles or auditing standards. We express no opinion and accept no responsibility for the accuracy and completeness of the financial information (audited, reviewed, compiled, internal, prospective, or tax returns), or other data provided to us by others, and we have not verified such information unless specifically stated in this report. We assume that the financial and other information provided to us is accurate and complete, and we have relied upon this information in performing our valuation.

If you have any questions concerning this valuation, please contact Ms. Margaret E. Smith, CPA/ABV, ASA, CVA, CBA, at (800) 000-1234.

Very truly yours, XYZ Appraisal Associates LLC

1.3 INTRODUCTION

1.3.1 Description of the Assignment

XYZ Appraisal was retained by Mr. Sherman Miller to determine the fair market value of a 100 percent equity interest in National Fastener & Machine Co. (National Fastener or the Company) on a marketable, control basis, as of September 1, 20X5, for internal operational and tax planning purposes.

1.3.2 Summary Description and Brief History of the Company

The Company was incorporated in 1927 in the State of Missouri. National Fastener operates in two segments: fasteners and assembly equipment. The Company's products are sold to the North American automotive industry by employees of the Company and by independent sales representatives. Revenues are primarily derived from sales to customers involved directly or indirectly in the manufacture of automobiles and automotive components. The Company is legally structured as a C corporation.

EXERCISE 8 The subject of this exercise is a C corporation, but analysts will frequently be required to value noncontrolling interests in S corporations. Valuation of S corporations is one of the most controversial issues in business valuations today. The main issue is how to tax-affect S corporation income and, if appropriate, compute an S corporation adjustment. What five models are often considered or used in valuing S corporations?

1.	
2	
4.	
5.	

National Fastener serves a variety of customers; however, sales to two major companies accounted for approximately 33 percent of revenues during 20X4. Sales to BI Automotive Systems, LLC, accounted for approximately 20 percent and 18 percent of the Company's consolidated revenues in 20X4 and 20X3, respectively. Sales to Hunter & Company accounted for approximately 13 percent and 14 percent of the Company's consolidated revenues in 20X4 and 20X3, respectively. Recently, the Company executed a manufacturing contract with a new customer, which is expected to generate significant revenue growth in the near future.

The Company maintains alternative sources for raw materials. The market is served by multiple suppliers, so prices for raw materials are generally competitive. The Company is not under any long-term contracts for raw materials. Orders are made through purchase orders based on pricing sheets negotiated biannually.

As of December 20X4, the Company had 236 full- and part-time employees. The employees are party to a collective bargaining agreement. The Company is on good terms with the union representing its employees and has recently renegotiated the union contract that now has an X-year term. There are no employment or noncompete agreements.

As of the valuation date, management and key personnel of National Fastener include the following individuals, with their titles shown in Exhibit 1.1.

The fastener and assembly equipment markets are characterized by active and significant competition. No single company in particular dominates the industry. The

EXHIBIT 1.	1 Ex	ecutive	Manag	ement
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Name	Title	Years with Company
Tony Atkins	Chief Executive Officer	34
Michael Johanson	Chief Operating Officer	16
Kimberly A. Kirhofer	Chief Financial Officer and Treasurer	13

Company's competitors include both larger and smaller manufacturers, and segments or divisions of large, diversified companies with substantial financial resources. The primary competitive factors for the Company's products in the market are price, quality, and service. Based on discussions with management, National Fastener's primary competitors include The Eastern Co., Twin Disc, Inc., Midwest Fasteners Corp., National Fastening Systems, and Haven Fastener, Inc.

The competitive environment has changed considerably in recent years as the Company's customers have experienced intense international competition and pressure to reduce costs. As a result, these customers have expanded their sourcing of components beyond domestic boundaries. National Fastener's competition now includes suppliers in other parts of the world that enjoy economic advantages, such as lower labor costs, lower health care costs, and fewer regulatory burdens.

1.3.3 Ownership and Capital Structure of the Company

The Company is legally structured as a C corporation. National Fastener is a privately held company owned by the same family that founded the company many years ago. The Company has a single class of common stock with 10,000 shares issued and outstanding. Exhibit 1.2 presents the ownership of the shares of the Company as of the valuation date:

EXHIBIT 1.2 Ownership

Stockholder	Number of Shares	Percentage
Tony Atkins	5,500	55.00%
Louise Atkins	1,500	15.00%
Veronica Atkins	1,500	15.00%
Anthony Atkins	1,500	15.00%
		100.00%

EXERCISE 9 We are valuing a 100 percent control interest in National Fastener. The percentage of ownership of individual shareholders is not an issue here. However, assume we are valuing the 55 percent interest of Tony Atkins as opposed to the 100 percent in National Fastener. The value of a 55 percent interest in National Fastener would be calculated as 55 percent of the 100 percent control value in National Fastener.

- a. True
- b. False

1.3.4 Standard of Value

The standard of value used in this report is fair market value. Fair market value is defined as:

The price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy nor sell and when both have reasonable knowledge of the relevant facts.¹¹

Among other factors, this valuation report considers elements of appraisal listed in the Internal Revenue Service's Revenue Ruling 59-60, which "outline[s] and review[s] in general the approach, methods, and factors to be considered in valuing shares of the capital stock of closely held corporations." Specifically, Revenue Ruling 59-60 states that the following factors should be carefully considered in a valuation of closely held stock:

EXERCISE 10 Revenue Ruling 59-60 is only applicable to estate, gift, and income tax valuations.

- a. True
- b. False
- 1. The nature of the business and history of the enterprise from its inception. National Fastener & Machine Co. began its history as a manufacturer of brake linings and harness rivets in 1920, under the name National Fastener & Specialty Co. In 1927, the Company was incorporated under the laws of the State of Missouri and changed its name to its current form. The Company has grown since its inception, and its customers have remained loyal.
- 2. The economic outlook in general and condition and outlook of the specific industry in particular. The consideration of the economic outlook on a national level, as well as on a regional and local level, is important in performing a valuation. How the economy is performing has a bearing in part on how the Company performs. Overall, the Company outlook is stable.
- 3. The book value of the stock and the financial condition of the business. The Company has a relatively strong balance sheet with a majority of its assets in these categories: cash, certificates of deposit, accounts receivables, inventory, and fixed assets. The fixed assets consist primarily of production equipment with some land and buildings.

¹¹International Glossary of Business Valuation Terms.

¹²Internal Revenue Service, Revenue Ruling 59-60, Section 1.

- 4. The earning capacity of the Company. Revenue increased at a CAGR of 4.2 percent from fiscal 20X2 to 20X4 and 6.8 percent from 20X0 to 20X4. Growth during these periods reflects recovery of domestic auto production. Adjusted income before taxes for the year ended December 31, 20X4, was \$2.9 million or 7.8 percent of revenue, down by approximately 18 percent from the income before tax of \$3.5 million (9.5 percent of revenue) in the prior fiscal year. With the recovery of the automotive industry, the Company has demonstrated a good ability to generate profits.
- 5. The dividend-paying capacity of the Company. The Company has strong dividend-paying capacity. However, the Company has generally retained earnings to support capital investment requirements and internal growth.
- 6. Whether the enterprise has goodwill or other intangible value. It is generally acknowledged that goodwill is often measured by the earnings ability of an enterprise being valued. Goodwill can be broadly defined as characteristics that induce customers to continue to do business with the Company and to attract new customers. The Company has intangible assets such as long-term relationships with customers, its proprietary trademark, and assembled workforce.
- 7. Sales of the stock and size of the block to be valued. There have been no sales of stock of the Company that would provide an indication of value during the period being analyzed.
- 8. The market prices of stock of corporations engaged in the same or a similar line of business having their stocks actively traded in a free and open market, either on an exchange or over the counter. The market approach was considered in this valuation. A search for guideline companies that are similar in nature and size to the Company was performed.

EXERCISE 11 These are the only eight tenets of value in Revenue Ruling 59-60 that need to be considered.

- a. True
- b. False

1.4 NATIONAL ECONOMIC OUTLOOK¹³

The financial success of investments in National Fastener as of the valuation date is dependent upon conditions within the economy and financial/capital markets. A prospective investor tempers the use of historical financial statistics on the basis of anticipated general economic conditions. An analysis of these factors as of the valuation date is therefore incorporated into this valuation analysis. Certain items in the following discussion have been extracted from the cited sources and/or substantially

¹³All of the contents of the economic outlook section of this valuation report are quoted from the *National Economic Review*, second quarter of 20X5, published by Mercer Capital, reprinted with permission, www.nationaleconomicreview.net.

paraphrased based upon them. In conjunction with the preparation of our opinion of fair market value, we have reviewed and analyzed the economic conditions as of September 1, 20X5, the date of valuation. This report includes summary discussions and analysis of the national economy for the second quarter of 20X5.

1.4.1 General Economic Overview

According to advance estimates released by the Department of Commerce's Bureau of Economic Analysis (BEA), Real Gross Domestic Product (GDP), the output of goods and services produced by labor and property located in the United States, increased at an annualized rate of 2.3 percent during the second quarter of 20X5. GDP performance during the second quarter of 20X5 was slightly lower than economists' expectations of 2.6 percent and follows increases of 2.1 percent and 0.6 percent in the fourth quarter of 20X4 and the first quarter of 20X5, respectively. GDP growth was driven largely by consumer spending, which increased 2.9 percent in the second quarter of 20X5, relative to increases of 4.3 percent and 1.8 percent in the fourth quarter of 20X4 and the first quarter of 20X5, respectively. Durable goods growth increased 7.3 percent, following an increase of 6.1 percent in the fourth quarter of 20X4 and an increase of 2.0 percent in the first quarter of 20X5. A survey of economists conducted by *The Wall Street Journal* reflects a consensus GDP forecast of 3.1 percent GDP in the third quarter of 20X5.

The Conference Board (TCB) reported that the Leading Economic Index (LEI), the government's primary forecasting gauge, increased 0.6 percent in June 20X5 to 123.6, after increases of 0.6 percent and 0.8 percent in April and May, respectively. Traditionally, the index is thought to gauge economic activity six to nine months in advance. Multiple consecutive moves in the same direction are said to be indicative of the general direction of the economy. The LEI increased or remained level in each of the past 18 months. Beginning in January 20X5, the base year of the index was changed from 2004 to 2010.

Conference Board economists view the LEI's recent movements as indicative of continuing economic growth in the second half of 20X5. According to TCB economist Ataman Ozyildirim, "The upward trend in the US LEI seems to be gaining more momentum with another large increase in June pointing to continued strength in the economic outlooks for the remainder of the year." He added, "Housing permits and the interest rate spread drove the latest gain in the LEI, while labor market indicators such as average workweek and initial claims remained unchanged."

Six of the LEI's 10 leading economic indicators rose during June 20X5. The positive contributors to the LEI (largest to smallest) included the interest rate spread, building permits, average consumer expectations for business conditions, the Leading Credit Index (inverted), manufacturers' new orders for nondefense capital goods excluding aircraft, and the ISM new orders index. Stock prices declined, and average weekly manufacturing hours, average weekly initial claims for unemployment insurance (inverted), and manufacturers' new orders for consumer goods and materials were unchanged. The rolling six-month percentage change in LEI increased in June 20X5. In June, the Coincident Economic Index increased 0.2 percent and the Lagging Economic Index increased 0.7 percent.

1.4.2 Consumer Spending and Inflation

According to the Bureau of Labor Statistics (BLS), the Consumer Price Index (CPI) increased 0.3 percent in June 20X5 (on a seasonally adjusted basis), following increases of 0.1 percent and 0.4 percent in April and May, respectively. Over the previous 12 months, the CPI increased 0.1 percent and Core CPI increased 1.8 percent, on an unadjusted basis.

The Producer Price Index (PPI), which is generally recognized as predictive of near-term consumer inflation, increased 0.4 percent in June 20X5 (PPI for final demand, seasonally adjusted), after a decline of 0.4 percent in April and an increase of 0.5 percent in May.

1.4.3 The Financial Markets

Due to the Greek financial crisis spurring a sell-off at the end of the quarter, the Dow Jones, the S&P, and the NASDAQ experienced losses during June 20X5. The Dow Jones and the S&P also posted losses for the second quarter of 20X5, while the NASDAQ posted its 10th consecutive quarterly gain. Driven by signs of an improving economy and the anticipation of the Federal Reserve increasing rates, most U.S. Treasury yields rose during the second quarter of 20X5.

1.4.4 Interest Rates

The yield on 10-year Treasury securities set a historic low in 20X1 before falling even further in 20X2. Although 10-year yields recovered somewhat in 20X3, yields declined consistently throughout 20X4. During the second quarter of 20X5, all yields for terms greater than one year increased.

EXERCISE 12 What anticipated changes in	types of industries would most likely be affected by interest rates?	

1.4.5 Unemployment

According to the Labor Department's Bureau of Labor Statistics (BLS), the unemployment rate was 5.3 percent in June 20X5, down slightly from 5.4 percent and 5.5 percent in April and May, respectively. While the June unemployment rate is lower than rates observed over the past several years, the labor force participation rate is also lower at 62.6 percent (relative to mid- to high-60s prior to the recession). As job availability increases, the labor force could increase due to individuals reentering

the workforce, which could lead to periodic increases in the unemployment rate in the foreseeable future. Economists surveyed by the *Wall Street Journal* anticipate an unemployment rate of 5.1 percent by year-end 20X5 and a further decline to 4.9 percent by June 20X6.

1.4.6 Summary and Outlook

Although the aptly named Great Recession reached its official end in mid-2009, economic growth continues but remains slow in some sectors. Although the housing market has strengthened, growth in the market remains modest. The unemployment rate reached pre-recession levels in December 20X4, but labor force participation remains low. Economic growth is expected to remain positive, though political uncertainty, rising interest rates, and continuing low labor force participation rates are causes for concern. GDP growth expectations from private economists surveyed by The Wall Street Journal are on the order of 3.1 percent for the third quarter of 20X5 and 3.0 percent for the fourth quarter of 20X5. Although the Federal Reserve ended its asset purchases, a significant tightening of monetary policy (via an increase in the target federal funds rate) is unlikely in the short run but increasingly likely in the coming quarters and will likely coincide with inflation stabilization. According to the Livingston Survey published on June 10, 2015, the long-term (10-year) forecast for the CPI Inflation Rate was a mean and median of 2.20 percent in a range from 1.60 percent to 2.80 percent. ¹⁴ The *Livingston Survey* long-term (10-year) forecast for real GDP was a median 2.50 percent and mean 2.42 percent in a range from 1.80 percent to 3.10 percent.

EXERCISE 13 What two economic indicators are probably the most important in valuation?

- a. Unemployment levels and gross domestic product (GDP)
- b. Dow Jones Industrial Average and Producer Price Index
- c. GDP and inflation
- d. Inflation and unemployment levels

1.4.7 National Economic Impact on Valuation

Analyzing the national economy is an important step in performing a valuation because it helps to identify any risk that the economy may have in relation to the Company. In this case, the economy appears to be in recovery with expected slow growth.

¹⁴ *Livingston Survey*, Federal Reserve Bank of Philadelphia, June 10, 2015, www.philadelphiafed .org.

EXERCISE 14 In valuing a small geographically concentrated business, which of these types of economic data should be considered?

- a. International, national, regional, local
- b. National, regional, local
- c. Regional, local
- d. Local only

1.5 REGIONAL ECONOMIC DATA (AS OF SEPTEMBER 1, 20X5)¹⁵

The economy remained strong in July and August, but was expanding more slowly than earlier in the year. Reports on consumer spending were mixed.

Construction activity generally was strong, despite softening on the residential side. Overall manufacturing output remained strong, but conditions were varied across industry segments. The labor markets remained much tighter than the rest of the nation, and seasonal demand put additional strain on some sectors of the market.

1.5.1 Consumer Spending

Reports on consumer spending activity were mixed. Sales of appliances, electronics, and lawn and garden goods continued to be strong. Retailers reported that inventories for most goods were in line with their planned levels. Auto dealers reported heavier floor traffic and increases in light vehicle sales. One large auto group noted that service activity was also up and that used car prices strengthened.

1.5.2 Manufacturing

The manufacturing sector generally remained strong, although activity varied by industry segment. According to most automakers, orders for light vehicles remained strong nationwide. Inventories were generally in good shape, although they were reportedly lean for select models. Despite these conditions, the pricing environment remained soft, with an increase in incentive spending noted by some analysts. Producers of agricultural and heavy construction equipment reported further softening in output in recent weeks, and most planned to reduce inventories further next year, although not as aggressively as this year. Reports expected domestic demand would be relatively soft in the coming year, while foreign demand was expected to pick up.

1.5.3 Banking and Finance

Lending activity continued to be mixed. Business lending remained robust, and most bankers suggested that growth was steady. A few reports indicated that overall asset quality on commercial loans might have deteriorated slightly, since intense competition for customers led some lenders to relax standards slightly. Some bankers

¹⁵ Anycity, Anystate, Anyregion (fictitious).

appeared to be less optimistic about the near-term commercial lending outlook than they had been in recent months. Household loan demand softened further, according to most lenders, as new mortgage and refinancing activity continued to slow. Reports noted that asset quality on consumer loans improved as existing bank and store credit-card balances were paid down, delinquencies slowed, and personal bankruptcies decreased. A report from one large money center bank attributed this improvement to a lagged effect from strong refinancing activity earlier in the year, and as a result, did not expect the improvement to endure. None of the bankers contacted noted any unusual borrowing by businesses that would indicate an inventory buildup, nor was there any noticeable increase in the demand for cash by consumers.

1.5.4 Labor Markets

Labor markets remained very tight. Demand for workers in most sectors remained strong. Temporary help firms in some metro areas reported increasing demand for manufacturing workers, while there were a few reports of slackening demand for financial service professionals, partly as a result of slowing mortgage applications. On balance, reports suggested that overall wage pressures had not intensified further in recent weeks. Staffing services reports indicated that wages were increasing fastest in the administrative/clerical occupations while a slowdown in wage growth was noted for information technology professionals. Reports from a large trucking firm noted the continued shortage of drivers was especially serious during high seasonal demand for transporting goods. Most reports continued to argue that worker shortages were hampering the economic expansion.

1.5.5 Regional Economic Impact on Valuation

The regional economy should also be analyzed in performing a valuation to help to determine specific risks associated with the particular region in which the Company operates. In this instance, the regional economy is performing very well in many areas.

1.6 LOCAL ECONOMY

Anycity, Anystate was founded in 1810. It has an estimated population of 2,800,000 citizens. The economy is made up primarily of trade, services, and manufacturing. Anycity has the 12th-strongest economy in the nation, according to a 20X5 economic analysis. The analysis studied factors such as employment, per capita personal income and construction, and retail employment.

According to a 20X5 study, Anycity, Anystate was one of the top 10 metropolitan areas in the nation as a hot spot for starting and growing young companies. The survey measured the number of significant start-up firms created during the last 10 years and the number of 10-year-old firms that grew substantially during the past four years. Also, in April 20X5, a national magazine named Anycity one of the top 10 "most improved cities" for business in the United States. Anystate was ranked seventh based on cost of living, educational opportunities, quality of life, and business issues. Construction activity also remained good.

The local economy is another important aspect to consider when performing a business valuation. The local economy represents the immediate environment in which the Company operates. The economy of Anycity, Anystate appears to be doing very well. Thus, in our opinion, there is little risk associated with the local economy that will affect the Company.

1.7 INDUSTRY OUTLOOK: FABRICATED METAL PRODUCTS AND TRANSPORTATION EQUIPMENT

We employed Porter's¹⁶ model of analysis to examine more closely the fastener industry defined by SIC 34, Fabricated Metal Products, Except Machinery and Transportation Equipment, and SIC 37, Transportation Equipment, specifically focusing on subcategory SIC 3714, Motor Vehicle Parts and Accessories.

1.7.1 Fabricated Metal Products Industry

"The fastener industry is remarkably decentralized, with hundreds of small shops producing the majority of fasteners." Over the years, U.S. companies in this industry have experienced significant competition from overseas manufacturers. Manufacturers serving the automotive sector have benefited from improvement in automotive sales, but some analysts are concerned with how long the growth will continue.

1.7.2 Transportation Equipment and Auto Parts Industry

"The automotive industry is the largest manufacturing sector in the United States." From 20X0 to 20X5 (five-year period), the automotive parts industry almost doubled. Original equipment production represents the majority of total automotive parts production, with the remainder being aftermarket equipment.

Demand for auto parts is directly related to automotive sales and production. Since the 2008 recession, production and sales of autos have improved dramatically in North America. In May 20X5, the annualized selling rate of light-vehicle sales was 17.8 million units, which was the highest rate since 10 years prior, July 20X5. Sales are expected to continue to grow as the economy improves with a positive outlook for the next few years. "The average vehicle age (which is over 11 years), the number of vehicles in operation, and miles driven should also drive demand for both replacement parts and new vehicles."

¹⁶Michael E. Porter, Competitive Strategy: Techniques for Analyzing Industries and Competitors (New York: Free Press, 1998).

¹⁷"Bolts, Nuts, Screws, Rivets, and Washers," *Encyclopedia of American Industries* (Farmington Hills, MI: Gale 2012). *Business Insights: Essentials*.

¹⁸2015 ITA Automotive Parts Top Markets Report, July 2015, International Trade Administration, U.S. Department of Commerce, p. 1.

¹⁹ Ibid.

²⁰ Auto Parts Industry, Value Line, June 19, 2015.

²¹ Ibid.

Global competition in this industry is intense, but U.S. exports are restricted in many countries by governmental regulation and tariffs. Auto manufacturers generally prefer to source parts from manufacturers located in close proximity to their production locations in order to reduce inventory through just-in-time delivery of parts. Tier 1 suppliers include large global manufacturing companies, but Tier 2 suppliers tend to be small to medium-size enterprises without export business. These businesses may see increasing price competition from foreign companies. "There are more and more parts suppliers entering the market offering lower price points, quality products, and/or advanced technologies. In addition, some of these suppliers receive or have received subsidies provided by their local governments. U.S. manufacturers with aftermarket products that are easy to produce and fairly low tech will face the greatest challenges." To remain competitive, suppliers are focusing on "new products and technologies that improve safety, enhance fuel economy, lower emissions, and support in-car connectivity."

1.7.3 Porter's Five Forces Analysis

- **1.7.3.1 Industry Competition** The domestic automotive industry is highly competitive with many independent domestic and international suppliers competing on price, quality, and service.
- **1.7.3.2 Threat of Substitute Products** The threat of substitute products is low, but existing products compete primarily on price, not on innovation.
- **1.7.3.3 Threat of New Entrants** Based on industry data, foreign companies have been entering the U.S. market, increasing competition for existing market share. As the dollar strengthens against the rest of the world currencies, pricing from foreign suppliers becomes even more attractive. Just-in-time manufacturing requiring that supplier facilities have close proximity to manufacturing facilities will somewhat limit this international competition for certain products.
- **1.7.3.4 Bargaining Power of Suppliers** Bargaining power of suppliers is low because of the competitive alternatives available to buyers.
- **1.7.3.5 Bargaining Power of Buyers** Bargaining power of buyers is very high because the smaller parts manufacturing companies are part of a chain serving very large auto manufacturers with multiple alternative sourcing options.

1.8 IMPACT ON VALUATION OF ECONOMIC AND INDUSTRY OUTLOOK

Based on analysis of the industry and economic outlook, the requirement for aging vehicles to be replaced and repaired should support stable growth for the Company, with continuing price pressures from offshore competition. The median 10-year

²²2015 ITA Automotive Parts Top Markets Report, July 2015, International Trade Administration, U.S. Department of Commerce, p. 6.

²³ Auto Parts Industry, Value Line, June 19, 2015.

forecast CPI and real GDP estimates from the *Livingston Survey* imply a combined forecast 10-year nominal GDP of 4.76 percent.²⁴ Based on the industry and economic data, a long-term perpetuity growth rate of 4.0 percent was assumed for the Company.

EXERCISE 15 Which industry outlook factors are generally the most important in supporting valuation assumptions?

- a. Growth rates, profit margins, and risk
- b. Regulatory and legal issues
- c. Unemployment figures
- d. Minority discounts and/or control premiums

1.9 HISTORICAL FINANCIAL ANALYSIS AND OVERVIEW OF THE COMPANY

Five years of financial data are presented for the fiscal years from 20X0 through 20X4 and the 12 trailing months (TTM) ended August 31, 20X5. See Exhibits 1.3 and 1.4 for the detailed comparative income statement and balance sheet of the Company, respectively. See Exhibit 1.5 for the adjusted comparative income statement.

EXERCISE 16 What is the most important use of historical financial data?

- a. To determine how the company has performed
- b. To assist in supporting anticipated performance
- c. To highlight profitability
- d. To determine average profits

EXERCISE 17 Analysts typically spread five years of financial statements because:

- a. Revenue Ruling 59-60 requires five years.
- b. USPAP and SSVS require five years.
- c. An economic cycle is often captured in five years.
- d. Most business plans are based on five years of projections.

²⁴Combined nominal GDP calculated as $(1 + \text{CPI}) \times (1 + \text{real GDP}) - 1$. Based on the information from the *Livingston Survey* $(1 + 2.20\%) \times (1 + 2.50\%) - 1 = 4.76\%$.

EXHIBIT 1.3 Comparative Income Statement
National Fastener & Machine Co.

National Fastener & Machine Co. Comparative Income Statement															
Valuation Date: September 1, 20X5															
	12 Months Ended					Yea	Years Ended December 31	ember 3	11,				3 Yr. Avg.	Compound Growth Rate	d et
	8/31/20X5	1	20X4(1)		20X3 (1)		20X2 (1)		20X1 (1)		20X0(1)		'X2 to 'X4	'X2 to 'X4	4
1	S	%	s	%	s	%	s	%	s	%	s	%	S	%	%
Net Revenues	35,853,691	100.0	37,135,207	100.0	37,117,830	100.0	34,223,772	100.0	30,915,122	100.0	28,520,510	100.0	36,158,936	100.0	4.2
Total Cost of Goods Sold	27,425,725	76.5	28,845,702	77.7	28,254,775	76.1	26,572,370	27.6	24,265,598	78.5	22,886,772	80.2	27,890,949	77.1	4.2
Gross Profit	8,427,966	23.5	8,289,505	22.3	8,863,055	23.9	7,651,402	22.4	6,649,524	21.5	5,633,738	19.8	8,267,987	22.9	4.1
Total Selling, General & Admin Expenses	5,423,009	15.1	5,439,555	14.6	5,397,861	14.5	5,186,760	15.2	5,033,451	16.3	4,801,641	16.8	5,341,392	14.8	2.4
Net Operating Profit	3,004,957	8.4	2,849,950	7.7	3,465,194	9.3	2,464,642	7.2	1,616,073	5.2	832,097	2.9	2,926,595	8.1	7.5
Other Expense (Income)	C	0			C	0	C	0		0		0	C	00	Ž
(2) Other Expense (Income)	(57,190)	-0.2	(56,939)	-0.2	(160,835)	0.0	(118,099)	-0.3	(249,804)	-0.8	(61,928)	0.5	(111,958)		MX
Total Other Expense (Income)	(57,190)	-0.2	(56,939)	-0.2	(160,835)	4.0-	(118,099)	-0.3	(249,804)	-0.8	(61,928)	-0.2	(111,958)		N/M
Income Before Taxes	3,062,147	8.5	2,906,889	7.8	3,626,029	8.6	2,582,741	7.5	1,865,877	6.0	894,025	3.1	3,038,553	8.4	6.1
Income Tax Provision	824,333	2.3	955,000	2.6	1,147,000	3.1	837,000	2.4	611,000	2.0	288,000	1.0	979,667	2.7	8.9
Net Income	2,237,813	6.2	1,951,889	5.3	2,479,029	6.7	1,745,741	5.1	1,254,877	4.1	606,025	2.1	2,058,886	5.7	5.7
Net Income to Invested Capital	2,237,813	6.2	1,951,889	5.3	2,479,029	6.7	1,745,741	5.1	1,254,877	4.1	606,025	2.1	2,058,886	5.7	5.7
Earnings Before Interest & Taxes	3,062,147	8.5	2,906,889	× .′	3,626,029	8.6	2,582,741	7.5	1,865,877	6.0	894,025	3.1	3,038,553		6.1
Earnings Before Int., Taxes, Depr. & Amort.	4,336,524	12.1	4,169,614	11.2	4,719,091	12.7	3,576,692	10.5	2,837,373	9.7	1,894,379	9.9	4,155,132	11.5	8.0
Depreciation & Amortization	1,274,377	3.6	1,262,725	3.4	1,093,062	2.9	993,951	2.9	971,496	3.1	1,000,354	3.5	1,116,579		12.7
Capital Expenditures	1,873,113	5.2	1,735,041	7.4	3,474,858	9.4	1,187,746	3.5	1,611,789	5.2	687,108	2.4	2,132,548	5.9 2	20.9
Effective 1ax Kate	76.9%		32.9%		51.6%		32.4%		37.7%		97.7%		32.3%	4	N/N
Notes (1) Source: Audited financial statements (2) Other income and expense includes the following:	ollowing:														
Interest Income	26,155		25,904		30,802		34,138		42,282		53,501		30,281		
Gain (10ss) on sale of equipment and property (14,235) Other 45,268	y (14,233) 45,268		15,639		15,375		67,946 16,015		192,544 14,978		(6,631) $15,078$		66,088 15,589		

EXHIBIT 1.4 Comparative Balance Sheet
National Fastener & Machine Co.

Comparative Balance Sheet														Compound	puno
	,						At December 31	er 31,						Growth Rate	Rate
ASSETS	At 8/31/20X5	ı	20X4 (1)		20X3 (1)		20X2 (1)		20X1 (1)		20X0 (1)		20X2 to 20X4	20X2 to 20X4	2 7 7
Current Assets	S	%	\$	%	S	%	s	%	s	%	ss	%	s	%	%
Cash and cash equivalents	1,602,497	5.4	231,252	8.0	443,608	1.6	392,810	1.5	704,345	2.8	725,524	3.1	355,890	1.3	-23.3
Certificate of deposit	5,320,000	17.8	6,058,000	20.9	6,207,348	22.0	7,088,000	27.4	5,880,000	23.7	6,380,000	27.0	6,451,116	23.3	9.7-
Accounts receivable, net	5,906,646	19.8	5,669,654	19.6	5,510,770	19.6	4,577,932	17.7	4,398,426	17.7	4,017,081	17.0	5,252,785	19.0	11.3
Inventory	5,010,529	16.8	5,162,474	17.8	4,880,788	17.3	4,936,372	19.1	5,212,040	21.0	4,310,154	18.2	4,993,211	18.0	2.3
Deferred income taxes	448,191	1.5	446,191	1.5	410,191	1.5	416,191	1.6	420,191	1.7	394,191	1.7	424,191	1.5	3.5
Prepaid income taxes	0	0.0	173,656	9.0	0	0.0	0	0.0	0	0.0	0	0.0	57,885	0.7	N/M
Other current assets	458,528	1.5	348,413	1.2	295,521	1.0	422,332	1.6	347,737	1.4	353,017	1.5	355,422	1.3	-9.2
Total Current Assets	18,746,391	62.7	62.7 18,089,640	62.4	17,748,226	63.0	63.0 17,833,637	8.89	68.8 16,962,739	68.2	16,179,967	68.4	17,890,501	64.6	0.7
Fixed Assets															
Land and improvements	1,270,242	4.3	1,270,242	4.4	1,238,150	4.4	1,238,150	4.8	1,238,150	5.0	1,250,875	5.3	1,246,173	4.5	6.0
Buildings and improvements	6,521,533	21.8	6,494,896	22.4	6,438,022	22.9	6,244,064	24.1	6,169,545	24.8	6,354,014	26.9	6,392,327	23.1	2.0
Production equipment and other	33,970,272	113.7	33,190,789 114.6	114.6	31,806,103 113.0	113.0	29,495,765 113.8	113.8	28,785,896 115.8	115.8	28,019,687 118.4	118.4	31,497,552 113.8	113.8	6.1
Gross Fixed Assets	41,762,047	139.8	40,955,927 141.4	141.4	39,482,275 140.2	140.2	36,977,979 142.7	142.7	36,193,591	145.6	36,193,591 145.6 35,624,576 150.6	150.6	39,138,727 141.4	141.4	5.2
Accumulated depreciation	(30,628,391) -	102.5	(30,077,932)	-103.8	(29,073,155)	-103.3	(28,900,113)	-1111.5	-102.5 (30,077,932) -103.8 (29,073,155) -103.3 (28,900,113) -111.5 (28,298,066) -113.8 (28,145,698) -119.0 (29,350,400) -106.0 N/M	-113.8	(28,145,698)	-119.0	(29,350,400)	-106.0	N/M
Net Fixed Assets	11,133,656	37.3	10,877,995	37.6	10,409,120 37.0	37.0	8,077,866 31.2	31.2	7,895,525	31.8	7,478,878	31.6	9,788,327	35.4	35.4 16.0
Total Assets	29,880,047	0.001	28,967,635	100.0	28,157,346	100.0	25,911,503	100.0	$\frac{100.0}{28,967,635} \frac{28,967,635}{100.0} \frac{100.0}{28,157,346} \frac{25,911,503}{100.0} \frac{100.0}{24,858,264} \frac{24,858,264}{100.0} \frac{100.0}{23,658,845} \frac{27,678,828}{100.0} \frac{100.0}{27,678,828} \frac{5.7}{100.0} \frac{100.0}{100.0} 1$	100.0	23,658,845	100.0	27,678,828	100.0	5.7

							At December 31,	r 31,						Compound Growth Rate	ound Rate
	At 8/31/20X5 \$	· %	20X4 (1) \$	%	20X3 (1) \$	%	20X2 (1)	%	20X1 (1) \$	%	20X0 (1) \$	%	20X2 to 20X4 \$	20X2 to 20X4 % %	ot 2 8 8
LIABILITIES & STOCKHOLDERS' EQUITY Current Liabilities	L. L.														
Accounts payable	1,173,018	3.9	923,819	3.2	924,943	3.3	1,003,647	3.9	968,266	3.9	748,781	3.2	950,803	3.4	-4.1
Accrued wages and salaries	889,749	3.0	605,029	2.1	560,114	2.0	409,695	1.6	374,964	1.5	405,604	1.7	524,946	1.9	21.5
Other accrued expenses	386,161	1.3	520,723	1.8	609,846	2.2	460,245	1.8	453,594	1.8	312,123	1.3	530,271	1.9	9
Unearned revenue and customer deposits	174,828	9.0	998'69	0.2	126,066	0.4	84,905	0.3	151,652	9.0	84,698	0.4	93,612	0.3	-9.3
Interest-bearing debt	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	N/M
Total Current Liabilities	2,623,756	8.8	2,119,437	7.3	2,220,969	7.9	1,958,492	9.7	1,948,476	7.8	1,551,206	9.9	2,099,633	7.6	4.0
Deferred Income Taxes	1,071,275	3.6	1,107,275	3.8	1,065,275	3.8	952,275	3.7	785,275	3.2	745,275	3.2	1,041,608	3.8	7.8
Interest-Bearing Debt	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	N/M
Total Liabilities	3,695,031	12.4	3,226,712	11.1	3,286,244	11.7	2,910,767	11.2	2,733,751	11.0	2,296,481	9.7	3,141,241	11.3	5.3
Stockholders' Equity	1 130 006	3 0	1 120 096	2 0	1 1 3 0 0 0 6	-	1 120 006	-	1 130 006	7	1 1 20 006	0	1 130 006		Ċ
Stockholders equity Additional paid in capital	1,136,076	0.0	1,136,036	V. C	1,136,076	1.0	1,138,036	† † † L	1,136,076	0. 1	1,138,026	o. t o o	1,136,076	4.T	0.0
Acturional paid-in capital Retained earnings	28.521,884	95.5	28,077,791	96.9	27,207,970	9.96	25.337,604	97.8	24,461,381	98.4	23,699,232	100.2	26,874,455	97.1	5.3
Treasury stock, 171,964 shares at cost		-13.1	(3,922,098)	-13.5	(3,922,098)	-13.9	(3,922,098)	-15.1	(3,922,098)	-15.8	(3,922,098)	-16.6	(3,922,098)	- '	4
Total Stockholders' Equity	26,185,016	87.6	25,740,923	88.9	24,871,102	88.3	23,000,736	88.8	22,124,513	89.0	21,362,364	90.3	24,537,587	88.7	5.8
Total Liabilities & Stockholders' Equity	29,880,047 1	100.0	28,967,635	100.0	28,157,346 100.0	100.0	25,911,503	100.0	24,858,264	100.0	23,658,845	100.0	27,678,828 100.0	100.0	5.7
Net Working Capital	_	54.0	15,970,203	55.1	15,527,257	55.1	15,875,145	61.3	15,014,263	60.4	14,628,761	61.8	15,790,868	57.1	0.3
Net Working Capital excluding Cash & CD		30.8	9,680,951	33.4	8,876,301	31.5	8,394,335	32.4	8,429,918	33.9	7,523,237	31.8	8,983,862	32.5	4.7
Debt-Free Net Working Capital Debt-Free Net Working Capital excluding	16,122,635	30.8	15,970,203	33.4	15,527,257	31.5	15,8/5,145	32.4	15,014,263 8 429 918	33.9	14,628,761	31.8	15,790,868	32.5	0.3
Cash	501	2	100000		• • • • • • • • • • • • • • • • • • • •			i		2				i	
Total Interest-Bearing Debt	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	ΝM
						ĺ									

⁽¹⁾ Source: Audited financial statements

EXHIBIT 1.5 Adjusted Comparative Income Statement
National Fastener & Machine Co.

National Fastener & Machine Co. Adjusted Comparative Income Statement														(-
	12 Months	'				Year	Years Ended December 31	mber 3	31,				3 Yr. Avg.	Compound Growth Rate	ate
	8/31/20X5		20X4 (1)		20X3 (1)		20X2 (1)		20X1 (1)		20X0 (1)		20X2 to	20X4 20X4	o .
	s	%	s	%	s	%	S	%	s	%	S	%	S	%	%
Net Revenues	35,853,691 100.0	0.001	37,135,207 100.0 37,117,830 100.0	0.001	37,117,830		34,223,772	100.0	34,223,772 100.0 30,915,122 100.0 28,520,510 100.0	100.0	28,520,510	100.0	36,158,936	100.0	4.2
(2) Costs of Goods Sold	26,151,348	72.9	27,582,977	74.3	27,161,713	73.2	25,578,419	74.7	23,294,102	75.3	21,886,418	76.7	26,774,370	74.0	3.8
Depreciation & Amortization	1,274,377	3.6	1,262,725	3.4	1,093,062	2.9	993,951	2.9	971,496		1,000,354		1,116,579	3.1	12.7
Total Selling, General & Admin. Expenses	5,423,009	15.1	5,439,555	14.6	5,397,861	14.5	5,186,760	15.2	5,033,451	16.3	4,801,641	16.8	5,341,392	14.8	2.4
Net Operating Profit	3,004,957	8.4	2,849,950	7.7	3,465,194	9.3	2,464,642	7.2	1,616,073	5.2	832,097	2.9	2,926,595	8.1	7.5
Total Other Expense (Income)	(57,190)	-0.2	(56,939)	-0.2	(160,835)	-0.4	(118,099)	-0.3	(249,804)	8.0-	(61,928)	-0.2	(111,958)	-0.3 N/M	NM
Income Before Taxes	3,062,147	8.5	2,906,889	7.8	3,626,029	8.6	2,582,741	7.5	1,865,877	6.0	894,025	3.1	3,038,553	8.4	6.1
Adjustments:															
(3) (Gain) Loss on Sale of Equipment	14,233	0.0	(15,659)	0.0	(114,658)	-0.3	(67,946)	-0.2	(192,544)	9.0-	6,651	0.0	(66,088)	-0.2	N/M
(4) Interest Income Adjustment	(6,730)	0.0	(4,597)	0.0	(3,150)	0.0	(9,974)	0.0	(17,006)	-0.1	(24,249)	-0.1	(5,907)	- 1	N/M
Total Adjustments	7,503	0.0	(20,256)	-0.1	(117,808)	-0.3	(77,920)	-0.2	(209,550)	-0.7	(17,598)	-0.1	(71,995)	-0.7	ΝW
Adjusted Income Before Taxes	3,069,650	8.6	2,886,633	7.8	3,508,221	9.5	2,504,821	7.3	1,656,327	5.4	876,427	3.1	2,966,558	8.2	7.4
Estimated Income Tax	826,353	2.3	948,345	2.6	1,109,735	3.0	811,748	2.4	542,381	1.8	282,331	1.0	609,956	2.6	8.1
Adjusted Net Income	2,243,297	6.3	1,938,288	5.2	2,398,487	6.5	1,693,073	4.9	1,113,946	3.6	594,096	2.1	2,009,949	5.6	7.0
Adjusted Net Income to Invested Capital Adj Earnings Before Interest & Taxes Adj Earnings Before Int., Taxes, Depr. & Amort.	2,243,297 3,069,650 4,344,027	6.3 8.6 12.1	1,938,288 2,886,633 4,149,358	5.2 7.8 11.2	2,398,487 3,508,221 4,601,283	6.5 9.5 12.4	1,693,073 2,504,821 3,498,772	4.9 7.3 10.2	1,113,946 1,656,327 2,627,823	3.6 5.4 8.5	594,096 876,427 1,876,781	2.1 3.1 6.6	2,009,949 2,966,558 4,083,138	5.6 8.2 11.3	7.0 7.4 8.9
Interest Expense Depreciation & Amortization (5) Estimated Tax Rare	0 1,274,377 26.9%	0.0	0 1,262,725 32.9%	0.0	0 1,093,062 31.6%	0.0	993,951 32.4%	0.0	0 971,496 32.7%	3.1	0 1,000,354 32.2%	3.5	0 1,116,579 32.3%	3.1	N/M 12.7
(c) Estimated the state of the			;		2		-		;		1		1		

Notes

1) Source: Audited financial statements

2) Excludes Depreciation and Amortization expense.

3) Sales of equipment used in the fastener segment. Amounts in 20X1 and 20X0 represent the gain/loss on the sale of equipment and property.

4) The interest income component of other income has been adjusted for the estimated amount of excess debt-free working capital. To calculate the applicable adjustment, this excess working capital amount is multiplied by each year's implicit effective rate of interest income earned on the combined balance of cash and marketable securities, based on the Company's audited financial statements.

Effective rate of interest income earned Normalized DFWC % of Revenues Ending Debt-Free Working Capital Normalized Debt-Free Working Capital Excess DFWC estimate	0.38%	0.41%	0.46%	0.46%	0.64%	0.75%
	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
	16,122,635	15,970,203	15,527,257	15,875,145	15,014,263	114,628,761
	14,341,476	14,854,083	14,847,132	13,689,509	12,366,049	11,408,204
	1,781,159	1,116,120	680,125	2,185,636	2,648,214	3,220,557
	6,730	4,597	3,150	9,974	17,006	24,249

5) Per management, projected tax rate for federal and state taxes is estimated at 33.0%.

1.9.1 Income Statements

1.9.1.1 Revenues Revenues are generally the first component to be reviewed by financial analysts. All other things equal, trends in revenues will translate into trends in profit margins, as well as the Company's ultimate fate. Increases in revenues, all things equal, should lead to higher profitability as the Company's fixed costs are spread over a wider revenue base, leading to lower fixed costs per dollar of revenue. Table 1.1 represents the actual revenues of the Company for each year and the growth trend associated with each year.

 TABLE 1.1
 Actual Revenues and Growth Trend

	Dec-X0	Dec-X1	Dec-X2	Dec-X3	Dec-X4
Revenues	\$28,520,510	\$30,915,122	\$34,223,772	\$37,117,830	\$37,135,207
% Change		8.4%	10.7%	8.5%	0.0%

As illustrated, the Company's revenues increased from fiscal 20X0 to 20X3, but growth leveled off in 20X4. Revenues for the 12 months trailing August 31, 20X5 were lower than for the fiscal year ended December 31, 20X4. Over the three-year period from 20X2 to 20X4, the compound growth rate in revenues was approximately 4 percent. Lower revenues in 20X0 and 20X1 were the result of the overall economy of the United States, which was in the process of recovering from the contraction that occurred in the prior two years. Revenues leveled off in 20X4, but capital expenditure investments made in 20X3 will improve production capacity and efficiency such that the facilities can support future growth in production.

1.9.1.2 Cost of Goods Sold As presented in Table 1.2, the Company's cost of goods sold as a percentage of revenues improved with the recovery of revenues in 20X2 and stabilized. Cost of goods sold was 77.7 percent of revenues for fiscal year 20X4, approximately the same as the 77.1 percent three-year average for the years ended 20X2 through 20X4. Cost of goods sold grew at the same compound annual growth rate as revenues of approximately 4 percent over the three-year period from 20X2 to 20X4.

 TABLE 1.2
 Cost of Goods Sold and Percentage of Revenues

	Dec-X0	Dec-X1	Dec-X2	Dec-X3	Dec-X4
Cost of Goods Sold	\$22,886,772	\$24,265,598	\$26,572,370	\$28,254,775	\$28,845,702
% of Revenues	80.2%	78.5%	77.6%	76.1%	77.7%

1.9.1.3 Selling, General, and Administrative Expense As presented in Table 1.3, the Company's selling, general, and administrative expense as a percentage of sales was 14.6 percent in 20X4, approximately the same as the three-year average such expense of 14.8 percent for the fiscal years ended 20X2 through 20X4.

			- Emperior una	- creemage of re	ie verrues
	Dec-X0	Dec-X1	Dec-X2	Dec-X3	Dec-X4
SG&A	\$4,801,641	\$5,033,451	\$5,186,760	\$5,397,861	\$5,439,555
% of Revenues	16.8%	16.3%	15.2%	14.5%	14.6%

TABLE 1.3 Selling, General, and Administrative Expense and Percentage of Revenues

1.9.1.4 Adjusted Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA) Adjustments were made to the historical financial data to eliminate nonrecurring income and expense items from National Fastener's reported income before tax. Adjustments included:

- The gains and losses on the sale of tooling equipment used in the fastener segment. No adjustment accounted for more than 0.6 percent of revenues for the year the gain or loss was recorded.
- Excess working capital was identified at National Fastener as of the valuation date. The value of excess working capital is added separately to the operating value of the equity of the Company. To avoid double-counting the value of this working capital, we have reduced interest income in each year by an amount equal to each year's effective interest rate earned times the amount of working capital in excess of the estimated normal working capital requirement.

Depreciation and amortization were added to the adjusted income before taxes to calculate adjusted earnings before interest, taxes, depreciation, and amortization (EBITDA).

To compare the Company to the industry, we used guideline public company data. The mean and median EBITDA as a percentage of sales for the guideline public companies in this industry were 9.6 percent and 9.9 percent, respectively. As presented in Table 1.4, the Company's EBITDA as a percentage of sales was approximately 11.2 percent in 20X4.

TABLE 1.4 Adjusted EBITDA and Percentage of Revenues

	Dec-X0	Dec-X1	Dec-X2	Dec-X3	Dec-X4
Adjusted EBITDA	\$1,876,781	\$2,627,823	\$3,498,772	\$4,601,283	\$4,149,358
% of Revenues	6.6%	8.5%	10.2%	12.4%	11.2%

1.9.2 Balance Sheets

1.9.2.1 Current Assets Current assets usually consist of cash and cash equivalents, accounts receivable, inventory, and other current assets, which usually consist of prepaid expenses.

1.9.2.2 Asset Mix Over the period, the majority of the Company's assets has been in certificates of deposit, accounts receivable, inventory, and fixed assets. Table 1.5 illustrates the Company's asset mix as a percentage of total assets.

	Dec-X0	Dec-X1	Dec-X2	Dec-X3	Dec-X4	Π
Cash and Equivalents	3.1%	2.8%	1.5%	1.6%	0.8%	
Certificates of Deposit	27.0%	23.7%	27.4%	22.0%	20.9%	
Accounts Receivable	17.0%	17.7%	17.7%	19.6%	19.6%	
Inventories	18.2%	21.0%	19.1%	17.3%	17.8%	
Deferred Income Taxes	1.7%	1.7%	1.6%	1.5%	1.5%	
Prepaid Income Taxes	0.0%	0.0%	0.0%	0.0%	0.6%	
Other Current Assets	1.5%	1.4%	1.6%	1.0%	1.2%	
Net Fixed Assets	31.6%	31.8%	31.2%	37.0%	37.6%	

 TABLE 1.5
 Asset Mix Percentages

The Company's asset mix was stable for the most part. Inventory was a slightly higher-than-normal percent of assets at December 31, 20X0, and 20X1 in the years following the recession. The working capital requirements of the Company are high, so cash is held in short-term certificates of deposit to be available to fund operations.

1.9.2.3 Liabilities The majority of the liabilities consisted of accounts payable and deferred income taxes. Total current liabilities as a percent of total liabilities and stockholders' equity increased from 6.6 percent at December 31, 20X0, to 7.3 percent at December 31, 20X4. Historically, the Company has not relied on interestbearing debt. Table 1.6 illustrates the Company's liabilities mix as a percentage of total liabilities and stockholders' equity.

TABLE 1.6 Liability Mix Percentages

	Dec-X0	Dec-X1	Dec-X2	Dec-X3	Dec-X4
Accounts Payable	3.2%	3.9%	3.9%	3.3%	3.2%
Accrued Wages and Salaries	1.7%	1.5%	1.6%	2.0%	2.1%
Other Accrued Expenses	1.3%	1.8%	1.8%	2.2%	1.8%
Unearned Revenue and Customer Deposits	0.4%	0.6%	0.3%	0.4%	0.2%
Deferred Income Taxes	3.2%	3.2%	3.7%	3.8%	3.8%
Equity	90.3%	89.0%	88.8%	88.3%	88.9%

The liability section of the balance sheet was also stable.

1.9.2.4 Equity Stockholders' equity refers to the difference between the book value of a company's assets and its liabilities. The stockholders' equity as a percent of total liabilities and stockholders' equity declined from fiscal year 20X0 to 20X4, but on a dollar basis grew during this period.

1.9.3 Financial Ratio Analysis

Ratios for the 12-month period ending September 1, 20X5, are not presented. See Exhibit 1.6 for the adjusted ratio analysis of the Company.

EXHIBIT 1.6 Adjusted Ratio Analysis

National Fastener & Machine Co.

Adjusted Katio Analysis							
	12 Months Ended		Yea	Years Ended December 31	oer 31,		— Average
	8/31/20X5	20X4	20X3	20X2	20X1	20X0	20X2 to 20X4
Liquidity Ratios							
Current Ratio	7.14	8.54	7.99	9.11	8.71	10.43	8.54
Debt-Free Current Ratio	7.14	8.54	7.99	9.11	8.71	10.43	8.54
Quick Ratio	4.89	5.64	5.48	6.16	5.64	7.17	5.76
Debt-Free Quick Ratio	4.89	5.64	5.48	6.16	5.64	7.17	5.76
Leverage Ratios							
Debt (1) to Assets	0.00	0.00	0.00	0.00	0.00	0.00	•
Debt (1) to Equity	0.00	0.00	0.00	0.00	0.00	0.00	
Debt (1) to Total Capital (2)	%0.0	0.0%	0.0%	0.0%	0.0%	0.0%	•
Preferred Stock to Total Capital	0.0%	0.0%	0.0%	0.0%	0.0%	%0.0	•
Stockholders' Equity to Total Capital (2)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Interest Coverage	N/M	N/M	N/M	N/M	N/M	NM	N/M
Asset Management Ratios							
Average Collection Period	60.13	54.95	49.60	47.87	49.68	51.41	50.81
Working Capital Turnover	2.22	2.36	2.36	2.22	2.09	1.95	2.31
Debt-Free Working Capital Turnover	2.22	2.36	2.36	2.22	2.09	1.95	2.31
Inventory Turnover	5.22	5.49	5.53	5.04	4.89	5.08	5.36
Fixed Asset Turnover	3.22	3.49	4.02	4.29	4.02	3.81	3.93
Total Asset Turnover	1.20	1.30	1.37	1.35	1.27	1.21	1.34
Accum. Depr. to Gross Fixed Assets	73.3%	73.4%	73.6%	78.2%	78.2%	%0.67	75.1%

(Continued)

⁽¹⁾ Debt defined as Total Interest-Bearing Debt. (2) Capital defined as Total Interest-Bearing Debt + Total Stockholders' Equity + Total Preferred Stock.

EXHIBIT 11.6 (Continued)

	12 Months		Year	Years Ended December 31,	r 31,		V
	8/31/20X5	20X4	20X3	20X2	20X1	20X0	20X2 to 20X4
Profitability Ratios							
Gross Profit Margin	23.5%	22.3%	23.9%	22.4%	21.5%	19.8%	22.9%
EBITDA Profit Margin	12.1%	11.2%	12.4%	10.2%	8.5%	%9'9	11.3%
EBIT Profit Margin	8.6%	7.8%	9.5%	7.3%	5.4%	3.1%	8.2%
Net Profit Margin	6.3%	5.2%	6.5%	4.9%	3.6%	2.1%	5.5%
Return on Equity	8.6%	7.7%	10.0%	7.5%	5.1%	2.8%	8.4%
Return on Assets	7.5%	%8.9	8.9%	%2'9	4.6%	2.5%	7.4%
Growth Rates (Year-to-Year and Compound An	Annual)						CAGR
Revenues		0.0%	8.5%	10.7%	8.4%	N/A	4.2%
Gross Profit		-6.5%	15.8%	15.1%	18.0%	N/A	4.1%
Earnings Before Int., Taxes, Depr. & Amort.		~8.6-	31.5%	33.1%	40.0%	N/A	8.9%
Earnings Before Interest & Taxes		-17.7%	40.1%	51.2%	80.68	N/A	7.4%
Net Income		-19.2%	41.7%	52.0%	87.5%	N/A	7.0%
Total Assets		2.9%	8.7%	4.2%	5.1%	N/A	5.7%
Debt-Free Net Working Capital		2.9%	-2.2%	5.7%	2.6%	N/A	0.3%
Total Interest-Bearing Debt		N/N	N/M	N/N	N/N	N/A	N/N
Total Stockholders' Equity		3.5%	8.1%	4.0%	3.6%	N/A	5.8%

EXERCISE 18 The main drawbacks of publicly available benchmark financial ratios are:

- a. There are very few SIC codes.
- b. They calculate the ratios incorrectly.
- c. The companies that make up the data cannot be used to determine pricing ratios or capitalization rates.
- d. The information is from public companies.

The industry statistics used in the ratio analysis were taken from benchmark data and guideline public company data. The median statistics are for businesses whose primary North American Industry Classification System (NAICS) Code is 332722, Bolt, Nut, Screw, Rivet, and Washer Manufacturing.

Ratios are divided into four groups, each representing an important aspect of the Company's financial position. The groups are liquidity, activity, leverage, and profitability.

1.9.4 Liquidity Ratios

Liquidity analysis assesses the risk level and ability of a company to meet its current obligations. It represents the availability of cash and the company's ability to eventually convert its liquidity into cash.

1.9.4.1 Current Ratio The current ratio compares current assets to current liabilities. It measures the margin of safety a company has for paying short-term debts in the event of a reduction in current assets. It also gives an idea of a company's ability to meet day-to-day payment obligations. Generally, a higher ratio is better.

The Company's current ratio and debt-free current ratio were consistently above the industry average over the period and the guideline public companies, as shown in Table 1.7. The Company's ratios were higher than the industry because of its high level of cash, cash equivalents, and certificates of deposit and lower level of current liabilities.

TABLE 1.7 Current Ratios

	Dec-X2	Dec-X3	Dec-X4
Company	9.11	7.99	8.54
Industry	2.65	2.59	3.10
Guideline Public Companies			
	Mean	Median	
Latest Twelve Months	4.63	4.41	

1.9.4.2 Quick Ratio The quick ratio adds accounts receivables to cash and short-term investments and compares the sum to current liabilities. The resulting ratio measures a company's ability to cover its current liabilities without having to convert inventory to cash. Generally, a higher ratio is better.

As shown in Table 1.8, the Company's ratios fluctuated over the period. The basic difference between the current and quick ratio is that the quick ratio includes only cash and receivables as the numerator. Thus, inventory is not included. The Company's debt-free quick ratio was significantly higher than the industry average. The collection period for the Company's receivables is longer than its peers. The Company has been very liquid and could easily cover its current maturities.

TABLE 1.8	Debt-Free	Ouick	Ratios
-----------	-----------	-------	--------

	Dec-X2	Dec-X3	Dec-X4
Company	6.16	5.48	5.64
Industry	0.70	0.60	0.60
Guideline Public Companies			
	Mean	Median	
Latest Twelve Months	2.27	2.24	

- **1.9.4.2.1 Conclusion of Liquidity Ratios** The Company appears to have lower risk than that of the industry. The current ratio and the quick ratio are above the industry average for the most part. Thus, the Company would have little difficulty covering its obligations when compared to other companies within the industry.
- **1.9.4.3 Activity Ratios** Activity ratios, also known as *efficiency ratios*, describe the relationship between the Company's level of operations and the assets needed to sustain the activity. The higher the ratio, the more efficient the Company's operations, as relatively fewer assets are required to maintain a given level of operations. Although these ratios do not measure profitability or liquidity directly, they are ultimately important factors affecting those performance indicators.
- **1.9.4.3.1** Collection Period Ratio The collection period ratio, also known as the *day's sales in receivables*, multiplies accounts receivable at the year end by 365, then divides the result by net sales for the year. This ratio measures how much control a company has over its accounts receivable, and indicates how many days, on the average, it takes that company to convert accounts receivable to cash. Generally, the smaller the number of days, the better.

The Company's average collection period has increased slightly from 20X0 to 20X4. Compared to the industry, the Company was worse at collecting receivables. For the years represented in Table 1.9, the Company converted its accounts receivable to cash more slowly than the other companies within the industry.

 TABLE 1.9
 Collection Period Ratios

	Dec-X2	Dec-X3	Dec-X4
Company	47.87	49.60	54.95
Industry	45.63	43.45	47.40

1.9.4.3.2 Fixed Assets Turnover Ratio The fixed assets turnover ratio compares net sales to fixed assets. It indicates a company's ability to generate net sales from the use

of its fixed assets. Largely depreciated fixed assets or a labor-intensive operation may cause a distortion of this ratio. Generally, a higher ratio is better.

The Company appears worse than the industry average during the period, as demonstrated in Table 1.10. The Company appears to have not used its fixed assets in generating revenues as effectively as the industry. However, the Company owns all of its equipment and machinery, as opposed to renting. Thus, the higher amount of fixed assets causes the ratio to be low as opposed to the industry figures. Most companies of this nature do not own all of their equipment. The industry averages most likely represent companies that both rent and own their respective equipment and machinery.

TABLE 1.10 Fixed Assets Turnover Ratios

	Dec-X2	Dec-X3	Dec-X4
Company	4.29	4.02	3.49
Industry	8.90	8.30	8.70

1.9.4.4 Asset Turnover Ratio The asset turnover ratio compares net sales to total assets. It measures a company's ability to generate sales volume using its assets. It is useful in comparing companies within specific industry groups on their effective employment of assets. Generally, a higher ratio is better.

The Company's average improved slightly during the period analyzed. The Company's trend (as shown in Table 1.11) was approximately the same as the industry.

 TABLE 1.11
 Asset Turnover Ratios

	Dec-X2	Dec-X3	Dec-X4
Company	1.35	1.37	1.30
Industry	1.31	1.42	1.38
Guideline Public Companies			
	Mean	Median	
Latest Twelve Months	1.40	1.20	

- **1.9.4.4.1 Conclusion of Activity Ratios** The Company seems to be doing better than the industry in this category. The Company does collect its receivables more quickly than other companies within the industry, for the most part. However, the Company is not as effective as other companies within the industry with fixed assets, but this may be affected by the high level of fixed assets it owns.
- **1.9.4.5 Leverage Ratios** Leverage ratios measure the relative exposure of the creditors versus the shareholders of a business. Leveraged companies accrue excess returns to their shareholders as long as the rate of return on the investments financed by debt is greater than the cost of debt. However, financial leverage brings additional risks, primarily in the form of fixed costs that would adversely affect profitability if revenues decline. Additionally, the priority of interest and debt can have a severe negative impact on a company when adversity strikes. The inability to meet these obligations may lead to default and possibly bankruptcy.

Historically, the Company has not relied on interest-bearing debt to finance operations, so leverage ratios for the Company are basically 0 percent. The mean and median debt-to-capital (book) of the guideline public companies were 14 percent and 10.7 percent, respectively. The Company should have little trouble supporting the purchase of fixed assets with retained earnings. The Company also has the capacity to take on some long-term debt if necessary. Management has indicated that the Company will obtain some debt financing in the near future.

1.9.4.6 Profitability Ratios Profitability ratios measure the ability of a company to generate returns for its stockholders.

1.9.4.6.1 Return on Equity The return on equity ratio compares pre-tax income to equity. It measures a company's ability to generate a profit on the owner's investment. Generally, a higher ratio is better.

The Company's return on equity ratio improved during the period under analysis. It is approximately the same as the median ratio of the guideline public companies of 8.8 percent, but lower than the average of 10.4 percent, as presented in Table 1.12.

TABLE 1.12	Return o	n Equity Ratios
-------------------	----------	-----------------

	Dec-X2	Dec-X3	Dec-X4
Company	7.5%	10.0%	7.7%
Industry	11.5%	15.0%	11.0%
Guideline Public Companies			
	Mean	Median	
Latest Twelve Months	10.4%	8.8%	

1.9.4.6.2 Return on Assets Ratio The return on assets ratio is calculated by dividing pre-tax income by total assets. This ratio expresses the pre-tax return on total assets and measures the effectiveness of management in employing available resources. Generally, a higher ratio is better.

Table 1.13 shows the Company's ratio was better than the industry average based on the guideline public company data.

TABLE 1.13 Return on Assets Ratios

	Dec-X2	Dec-X3	Dec-X4
Company	6.7%	8.9%	6.8%
Industry	8.1%	10.1%	8.9%
Guideline Public Companies			
	Mean	Median	
Latest Twelve Months	6.1%	5.5%	

1.9.4.6.3 Conclusion of Profitability Ratios The Company is profitable and appears to be outperforming the industry.

EXERCISE 19 Indicate whether you believe that National Fastener is a better or worse performer based on the financial ratios and trends previously presented.

1.10 PROJECTIONS

Management provided projections for the Company for the years ending December 31, 20X5, 20X6, 20X7, and 20X8, which are presented in Exhibit 1.7. Management's projections reflect higher revenue growth in the next few years (relative to 20X2 to 20X4) due to the recent execution of a manufacturing agreement with a new customer. Cost of sales is difficult for management to project because of volatility in raw material pricing. Management assumed that cost of sales before depreciation and amortization expense will remain the same as a percent of sales throughout the projected period. Management assumed that operating expenses would grow to support future operations, but due to the increase in sales volume operating expenses decline as a percent of revenues throughout the projected period.

Future capital expenditures to maintain the operating facilities were assumed to be approximately 3.5 percent of revenues. Management provided projected tax depreciation associated with existing assets and future purchases.

1.11 APPRAISAL OF FAIR MARKET VALUE

1.11.1 Valuation Approaches and Methods

Three traditional approaches can be used to value an interest in an operating business such as National Fastener: the income approach, the market approach, and the asset approach.¹⁹

1.11.1.1 Income Approach "Income (Income-Based) Approach—a general way of determining a value indication of a business, business ownership interest, security, or intangible asset using one or more methods that convert anticipated economic benefits into a present single amount."

The application of the income approach establishes value by methods that discount or capitalize earnings and/or cash flow, by a discount or capitalization rate that reflects market rate of return expectations, market conditions, and the relative risk of the investment. Generally, this can be accomplished by the capitalization of earnings or cash flow method and/or the discounted cash flow method.

EXHIBIT 1.7 Management's Projections

Assumptions for Projections:												
Revenue Growth, Annual												
20X5 8%												
20X6 10%												
20X7 8%												
20X8 5%												
Capital Expenditures 3.5%												
	Budget		8 Months		Implied							
	Calendar Year		Ended		September-		1	Projecte	Projected Years Ended December 31,	Decemb	er 31,	
	20X5		8/31/20X5		December 20X5		20X6		20X7		20X8	
Revenues Growth	\$40,106,024 8.0%	100.0	100.0 \$24,653,287 100.0 \$15,452,737	100.0		100.0	\$44,116,626 10.0%	100.0	100.0 \$44,116,626 100.0 \$47,645,956 100.0 \$50,028,254 100.0 10.0% 8.0% 5.0%	100.0	\$50,028,254	100.0
Cost of Sales (excluding D&A)	28,836,231	71.9	17,674,439	71.7	71.7 11,161,792	72.2	31,719,854	71.9	71.9 34,257,442	71.9	71.9 35,970,314	71.9
Gross Profit	11,269,793	28.1	6,978,848	28.3	4,290,945	27.8	12,396,772	28.1	13,388,514	28.1	14,057,939	28.1
Operating Expenses	5,975,798	14.9	3,708,705	15.0	2,263,513	14.6	6,214,829	14.1	6,463,423	13.6	6,721,959	13.4
EBITDA	5,293,995	13.2	3,270,143	13.3	2,027,432	13.1	6,181,942	14.0	6,925,091	14.5	7,335,980	14.7
Adjustments:												
(Gain) loss on sale of equipment	1	ı	1	ļ.	1	ı	ı	1	1	1	1	ı
Interest income adjustment		. '	1	'		١.	1	. '	1	. '	1	1
EBITDA	5,293,995	13.2	3,270,143	13.3	2,027,432	13.1	6,181,942	14.0	6,925,091	14.5	7,335,980	14.7
Capital Expenditures	1,403,711	3.5	1,158,140	7.4	245,571	1.6	1,544,082	3.5	1,667,608	3.5	1,750,989	3.5
Depreciation, Tax	1,194,947	3.0	734,537	3.0	460,410	3.0	1,570,118	3.6	1,871,816	3.9	2,114,139	4.2

1.11.1.2 Market Approach "Market (Market-Based) Approach—a general way of determining a value indication of a business, business ownership interest, security, or intangible asset by using one or more methods that compare the subject to similar businesses, business ownership interests, securities, or intangible assets that have been sold."

Generally, this can be accomplished by a comparison to publicly traded guideline companies or by an analysis of actual transactions of similar businesses sold. It may also include an analysis of prior transactions in the company's stock, if any.

1.11.1.3 Asset Approach "Asset (Asset-Based) Approach—a general way of determining a value indication of a business, business ownership interest, or security, using one or more methods based on the value of the assets net of liabilities."

This approach can include the value of both tangible and intangible assets. However, this approach is often unnecessary in the valuation of a profitable operating company as a going concern, as the tangible and intangible assets are automatically included, in aggregate, in the market and income approaches to value.

1.11.2 Summary of the Valuation Approaches and Methods

In our valuation of National Fastener, we considered all three approaches to value. Under the income approach, we utilized the discounted cash flow method. We also considered, but rejected, the capitalized cash flow method [Learning Illustration Only]. Under the market approach, we prepared an analysis using the guideline public company method and the guideline company transactions method. We did not rely on the underlying asset approach for the valuation of National Fastener, as the business enterprise value exceeds the value of the underlying tangible and financial assets and captures the value of all intangible assets and goodwill. National Fastener is worth more as a going concern than in liquidation, whether orderly or forced.

EXERCISE 20 All three approaches to value must be applied in all valuations.

- a. True
- b. False

1.11.3 Asset Approach

1.11.3.1 Adjusted Book Value Method The adjusted book value method consists of determining the fair market value of a company's assets and subtracting the fair market value of its liabilities to arrive at the fair market value of the equity. Both tangible and intangible assets are valued. Appraisals are used to value certain assets, and the remaining assets and liabilities are often included at book value, which is sometimes assumed to approximate fair market value. This method does not provide a strong measure of value for goodwill or other intangible assets, which are more reasonably supported through the Company's income stream. In this case, the

value under the adjusted book-value method (net tangible assets) was less than the values calculated under the income and market approaches. Thus, this method was not utilized in the determination of a conclusion of value for the Company.

1.11.3.2 Excess Cash Flow Method The excess cash flow method, which is sometimes referred to as the excess earnings or formula method, is based on the excess cash flow or earnings available after a percentage return on the net tangible assets used in a business has been subtracted. This residual amount of cash flow is capitalized at a percentage return for intangible assets of the business to derive the intangible asset value. This method is often used for very small businesses and in marital dissolution proceedings. The Internal Revenue Service's position on this method is that it should only be used when no better method exists.²⁰ It was not used in the valuation of National Fastener since more appropriate methods were available.

EXERCISE 21 In what type of valuation setting is the excess cash flow method most often used?

- a. ESOPs (employee stock ownership plans)
- b. Estate tax
- c. Dissenting rights
- d. Marital dissolution

EXERCISE 22 On which Revenue Ruling is the excess cash flow method based?

- a. Revenue Ruling 59-60
- b. Revenue Ruling 83-120
- c. Revenue Ruling 68-609
- d. Revenue Ruling 77-287

1.11.4 Income Approach

1.11.4.1 Capitalized Cash Flow Method (Invested Capital Basis) For illustration purposes only; the DCF method is the proper method to be used in this example. Most valuation views presented here also apply to the DCF method. The capitalized cash flow method determines the value of a company as the present value of all of the future cash flows that the business can generate to infinity. An appropriate cash flow is determined, then divided by a risk-adjusted capitalization rate, which here is the weighted average cost of capital. In this instance, control cash flows were used. This method was used to determine the Company's indicated value. The value is stated on a marketable, control interest basis. See Exhibit 1.8 for the capitalized cash flow to invested capital method.

EXHIBIT 1.8 Capitalized Cash Flow to Invested Capital Method (Illustration Only)

National Fastener & Machine Co.

(3) Perpetuity Growth Rate

Capitalized Cash Flow to Invested Capital Method Valuation Date: September 1, 20X5

(2) Debt-Free Working Capital as a % of Revenues

Assumptions:
(1) WACC 13.00%

	Trailing 12 Months	Most Recent Fiscal Year	Three-Year Average
Net Revenues	\$35,853,691	\$37,135,207	\$36,158,936
Growth Rate	1.04	1.04	1.04
Following Year's Net Revenues	37,287,839	38,620,615	37,605,294
Incremental Net Revenues	1,434,148	1,485,408	1,446,357
Debt-Free Working Capital as a % of Revenues	40.00%	40.00%	40.00%
Estimated Incremental Working Capital	573,659	594,163	578,543
Adjusted Net Income to Invested Capital	2,243,297	1,938,288	2,009,949
Growth Rate	1.04	1.04	1.04
Following Year's Net Income to Invested Capital	2,333,029	2,015,819	2,090,347
(4) Plus: Depreciation (4) Less: Capital Expenditures			
Less: Incremental Working Capital	(573,659)	(594,163)	(578,543)
Normalized Cash Flow to Invested Capital	1,759,370	1,421,656	1,511,804
Capitalization Rate	9.00%	9.00%	9.00%
Indicated Value of 100% of the Business			
Enterprise	19,548,552	15,796,176	16,797,823
(5) Plus: Excess Debt-Free Net Working Capital	1,781,159	1,781,159	1,781,159
Indicated Value of 100% of the Business			
Enterprise	21,329,711	17,577,335	18,578,981
Less: Interest-Bearing Debt			
Indicated Value of 100% of the Equity	21,329,711	17,577,335	18,578,981
Rounded	21,300,000	17,600,000	18,600,000
Indicated Value of 100% of the Equity		20,000,000	

40.00%

4.00%

Notes

⁽⁵⁾ Based on the working capital assumption, the Company had excess working capital as of the valuation date:

Ending Debt-Free Working Capital	16,122,635
Normalized DFWC Based on Analysis (40.00% of revenue)	14,341,476
Excess DFWC	1,781,159

⁽¹⁾ See Exhibit 1.18 for details.

⁽²⁾ DFWC as % of revenues based on analysis of historical requirements of the Company and data for the industry. See Exhibit 11.9.

⁽³⁾ Long-term growth assumption based on analysis of the industry and inflationary and GDP growth.

⁽⁴⁾ Depreciation and Capital Expenditures were assumed to be equal and offsetting into perpetuity This is a simplifying assumption.

EXERCISE 23 Which method(s) is(are) considered valid under the income approach?

- a. Guideline public company method
- b. Discounted cash flow method
- c. Capitalized cash flow method
- d. Excess cash flow method

EXERCISE 24 In which situation(s) would a capitalized cash flow method be more applicable?

- a. When a company's future performance is anticipated to change from its prior performance
- b. In litigation settings
- c. When a single historical or pro forma amount of cash flow is anticipated to be earned with a constant growth in the future
- d. When valuing very small businesses

EXERCISE 25 List the two main bases when using the capitalized cash flow (CCF) or discounted cash flow (DCF) methods of the income approach.
1
2

1.11.4.1.1 Determination of Appropriate Control Cash Flow Under the capitalized cash flow method, we used an invested capital basis for our calculation. This is due, in part, to the fact that the interest being valued is on a control interest basis. This control interest can influence the amount of debt held by the Company. We began our analysis with the adjusted pre-tax earnings at the date of valuation and for the five years prior to the date of valuation. We then made adjustments for interest expense, nonrecurring items, and items that are not reflective of operations to the pre-tax earnings.

EXERCISE 26 cash flow?	Under the direct equity basis, what are the components of net

EXERCISE 27 For the invested capital basis of the income approach, list the components of net cash flow.
EXERCISE 28 What is the difference between minority cash flows and control cash flows?
EXERCISE 29 Which adjustment(s) are made when valuing both minority and control cash flows?
a. Nonrecurring itemsb. Nonoperating assetsc. Excess compensationd. Perquisitese. Taxes
EXERCISE 30 Assume the company does not have any control adjustments and the company is run to the benefit of all shareholders without any shareholders taking out cash flow over or above what they are entitled. Is this value control or minority?

The next adjustment was to add back the depreciation expense. This is a non-cash expense and should be added back to arrive at an appropriate cash flow. The adjustment for the gains and losses on the sale of tooling equipment used in the fastener segment was made because such events are nonrecurring in nature.

All income and expenses related to excess/nonoperating assets are taken out of the income stream, because the total value of these assets is unrelated to the indicated value of operations. Excess working capital was identified at National Fastener as of the valuation date. The value of excess working capital is added separately to the operating value of the equity of the Company. To avoid double-counting the value of this working capital, we have reduced interest income in each year by an amount equal to each year's effective interest rate earned times the amount of working capital in excess of the estimated normal working capital requirement. See Exhibit 1.9 for an analysis of working capital requirements based on industry data. See Exhibit 1.10 for an analysis of working capital requirements based on guideline public company data.

EXERCISE 32 In valuing a controlling interest in a corporation, most analysts agree that the nonoperating and/or excess assets of the business must be removed from the cash flows and valuation of the operating business, and then be added back at fair market value.

- a. True
- b. False

EXERCISE 33 In valuing a minority interest of a company, most analysts agree that the nonoperating and/or excess assets of the business must be removed from the cash flows and valuation of the operating business, and then be added back at fair market value.

- a. True
- b. False

EXHIBIT 1.9 Debt-Free Working Capital (DFWC)—Benchmark Data Analysis

4/1/X3-3/31/X4 25MM < Sales 24.6% 11.6% 3.5% 39.7% 54.3% 24.6% 39.7% \$2,943,433 \$1,168,543 \$1,168,543 \$3,954,324 29.6% 4/1/X3-3/31/X4 27.3% 40.1% \$1,118,963 59.2% 31.9% 9.4% \$1,118,963 27.3% 40.1% \$3,963,452 28.2% Bolt, Nut, Screw, Rivet, and Washer Manufacturing 3.4% \$2,790,432 ΨI NAICS Code 332722 NAICS Code 336310 4/1/X2-3/31/X3 58.3% 26.4% 5.9% \$1,064,489 26.4% \$2,973,434 \$1,064,489 31.1% 31.9% 3.5% 35.8% 35.8% \$3,425,214 Ψ 4/1/X1-3/31/X2 57.0% 32.0% 25.0% 25.0% 6.7% 35.5% 35.5% \$654,491 \$654,491 \$2,352,643 27.8% 3.8% \$1,843,636 Ψ Debt-Free Working Capital (DFWC) Debt-Free Working Capital—\$000 Debt-Free Working Capital-\$000 Plus: Notes Payable—Short-Term Divided by: Total Sales-\$000 Plus: Current Mat.—L.T.D. Debt-Free Working Capital Times: Total Assets-\$000 Less: Current Liabilities As a % of Total Assets DFWC as a % of Sales Working Capital Working Capital Current Assets

M	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	e Parts Manufacturing	
4/1/X1-3/31/X2 All	4/1/X2-3/31/X3 All	4/1/X3-3/31/X4 All	4/1/X3-3/31/X4 25MM > Sales
58.7%	61.2%	62.3%	66.2%
39.5%	32.9%	32.7%	33.5%
19.2%	28.3%	29.6%	32.7%
19.2%	28.3%	29.6%	32.7%
11.4%	11.7%	5.4%	6.2%
2.9%	3.1%	3.1%	2.9%
33.5%	43.1%	38.1%	41.8%
33.5%	43.1%	38.1%	41.8%
\$1,323,234	\$1,565,435	\$1,643,433	\$1,732,232
\$443,283	\$674,702	\$626,148	\$724,073
\$443,283	\$674,702	\$626,148	\$724,073
\$1,454,353	\$1,945,344	\$1,945,343	\$2,124,546
30.5%	34.7%	32.2%	34.1%

Debt-Free Working Capital (DFWC)

Debt-Free Working Capital Times: Total Assets—\$000

Plus: Current Mat.—L.T.D.

Plus: Notes Payable—Short-Term

Working Capital Working Capital

Less: Current Liabilities

Current Assets

As a % of Total Assets

(1) Source: Benchmark data publication.

Debt-Free Working Capital—\$000 Divided by: Total Sales—\$000

DFWC as a % of Sales

Note

Debt-Free Working Capital—\$000

EXHIBIT 1.9 (Continued)

National Fastener & Machine Co. Debt-Free Working Capital (DFWC) Statistics Benchmark Data Analysis (1)				
	Subject Company DFWC Turns	DFWC as a % of Revenues	Guideline Public Company DFWC Turns Median	Guideline Public Company DFWC as a % of Revenues
Three Year Average ('X2 to 'X4)	2.31	43.2%	2.55	39.2%
Most Recent Fiscal Year	2.36	42.4%	2.49	40.2%
Trailing Twelve Months	2.22	45.0%	2.49	40.2%
Concluded Debt-Free Working Capital Requirements		40.0%		

EXHIBIT 1.10 Debt-Free Working Capital (DFWC)—Guideline Public Company Analysis

	e Cor	age Median	38.2%	7% 40.2%	age Median	5% 29.9%	8% 40.2%	age Median	5% 37.7%	38.9%	age Median	5% 35.4%	2% 38.5%	age Median	9% 34.3%	4% 39.2%
	Guid	Average	34.0%	37.7%	Average	30.6%	34.8%	Average	35.5%	37.1%	Average	32.5%	34.2%	Average	32.9%	35.4%
	C	NC.	36.0%	36.3%	VC	17.3%	19.2%	VC	30.6%	32.3%	VC	19.4%	21.1%	VC	22.5%	24.2%
	TAKAN.	IWIN	42.4%	43.8%	TWIN	42.4%	43.8%	TWIN	46.7%	48.0%	TWIN	43.8%	45.1%	TWIN	44.3%	45.6%
	XOS	SCX	45.5%	46.1%	SCX	45.5%	46.1%	SCX	45.0%	49.3%	SCX	45.1%	45.8%	SCX	45.2%	47.0%
	Ė	515	19.2%	19.4%	STS	18.8%	19.1%	SLS	15.2%	15.5%	STS	16.2%	16.2%	SLS	16.7%	16.9%
		PFIN	20.6%	39.2%	PFIN	18.6%	38.5%	PFIN	35.2%	36.3%	PFIN	34.6%	40.0%	PFIN	29.4%	38.3%
	į	EML	40.4%	41.2%	EML	41.1%	41.8%	EML	40.3%	41.5%	EML	36.1%	37.0%	EML	39.2%	40.1%
National Fastener & Machine Co. Debt-Free Working Capital (DFWC) Statistics Guideline Public Company Analysis (1) (As % of Revenue)		National Fastener	45.0%	45.0%	National Fastener	43.0%	43.0%	National Fastener	41.8%	41.8%	National Fastener	46.4%	46.4%	National Fastener	43.7%	43.7%
National Fastener & Machine Co. Debt-Free Working Capital (DFWC Guideline Public Company Analysi (As % of Revenue)	V KLL-L	IIM	Working Capital	DFWC	FYE 20X4	Working Capital	DFWC	FYE 20X3	Working Capital	DFWC	FYE 20X2	Working Capital	DFWC	3-Year Avg	Working Capital	DFWC

(1) Underlying financial data for computing working capital and debt-free working capital as percentages of revenue can be found in Exhibits 1.21 a through f.

Note

The capitalized cash flow method was calculated using adjusted net income data for the latest trailing 12 months, the most recent fiscal year, and the average of the most recent three years. We believe a straight average is appropriate due to the cyclical nature of the Company.

EXERCISE 34 In the valuation of National Fastener, one of the periods that the analyst decided to use was a straight average of the adjusted income before income taxes for three historical years. Besides a straight average, what other method(s) can be used to determine the appropriate cash flow to be capitalized into perpetuity?

- a. Weighted average
- b. Most recent fiscal year
- c. Most recent trailing 12 months
- d. Trend line analysis/next year's budget
- e. DCF average of next three years

EXERCISE 35 Analysts will generally use a straight historical average where the earnings and cash flows are more volatile.

- a. True
- b. False

The adjusted net income reflected deduction for ongoing depreciation and application of state and federal taxes at rates estimated per management. The amount that resulted was adjusted income pre-debt and after-tax.

EXERCISE 36

Which situation is most appropriate when adjusting cash flows for depreciation and capital expenditures?

- a. Capital expenditures should be similar to or exceed depreciation.
- b. Depreciation should exceed capital expenditures.
- c. The actual unadjusted amounts should be capitalized.

EXERCISE 37 Assuming taxes are to be deducted, what two choices may be made in making the tax adjustments?

- a. Tax each year historically, then calculate an average.
- b. Taxes should never be deducted in the value of an S corporation.
- c. Make all adjustments in the historical period pre-tax, determine the average, then deduct for taxes.

Three further adjustments are made to the after-tax income to invested capital. The ongoing depreciation deducted to calculate taxes is added back because it is not a cash expense. The estimated future capital expenditures are then deducted. In this case, it was estimated that depreciation and future capital expenditures would be equal and offsetting into perpetuity, a simplifying adjustment. [Note: Many analysts present ongoing annual capital expenditures as exceeding depreciation due to inflation and cost increases. See Chapter 5 of *Financial Valuation Applications and Models*, 4th edition.] The final adjustment was a working capital adjustment. The formula for this adjustment is based on industry data, as shown in Table 1.14. These final three adjustments resulted in a calculation of after-tax cash flow to invested capital for each of the three time periods: trailing 12 months, most recent fiscal year, and three-year average. The cash flow was then divided by a risk-adjusted capitalization rate using weighted average cost of capital, which is discussed next, to derive a value of the operations.

TABLE 1.14 Working Capital Adjustment Formula

Current Year Revenue × Expected Growth Rate = Projected Revenue

Projected Revenue - Current Year Revenue = Change in Revenue

Change in Revenue ÷ Sales to Working Capital Ratio = Working Capital Adjustment

EXERCISE 38 Which economic benefit stream(s) can be used for cash flow in a capitalized cash flow method?

- a. After-tax income
- b. Pre-tax income
- c. Net cash flow
- d. EBITDA (earnings before interest, taxes, depreciation, and amortization)
- e. Revenues
- f. Debt-free net income
- g. Debt-free cash flow

1.11.4.1.2 Capitalized Cash Flow Method Conclusion of Value on a Marketable, Control Interest Basis Dividing the cash flows for the three time periods under analysis resulted in indications of invested capital value of the business enterprise before adjustment for nonoperating/excess assets or subtraction of debt, if any. The Company had excess working capital of \$1,781,159 at the Valuation Date and no debt. As a result, the application of the capitalization of cash flow method to the three different time periods of Company cash flows indicated a range of values for invested capital and 100 percent equity (since Company had no debt) from \$17,600,000 to \$21,300,000. The concluded value was \$20,000,000 on a marketable, control interest basis, as shown in Table 1.15.

	Trailing 12 Months	Most Recent Fiscal Year	Three-Year Values
Invested Capital	\$19,548,552	\$15,796,176	\$16,797,823
Add: Excess Working Capital	\$ 1,781,159	\$ 1,781,159	\$ 1,781,159
Less: Interest-Bearing Debt	\$ —	\$ —	\$ —
Value on a Marketable, Control Interest Basis	\$21,329,711	<u>\$17,577,335</u>	\$18,578,981
Indicated Value of 100% of the Equity		<u>\$20,000,000</u>	

 TABLE 1.15
 Income Approach—Capitalized Cash Flow Method

1.11.4.2 Discounted Cash Flow Method

EXERCISE 39 When is it more appropriate to use a discounted cash flow method instead of a capitalized cash flow method?	

The discounted cash flow method is a multiple period valuation model that converts a future series of cash flow into value by reducing it to present worth at a rate of return (discount rate) that reflects the risk inherent therein. The "cash flow" might be pre-tax, after-tax, debt-free, free cash flow, or some other measure deemed appropriate and adjusted by the analyst. Future income or cash flow is determined through projections provided by the Company.

Management provided projections for the Company for the years ending December 31, 20X5, through 20X8. See Exhibit 1.11 for the discounted cash flow method. These projections reflect expected revenue growth and margin improvement associated with a recently executed manufacturing contract with a new customer. Capital expenditure investments made in 20X3 improved production capacity and efficiency such that the facilities can support such growth in production.

The discounted cash flow analysis relied on a WACC of 13 percent and perpetuity growth rate of 4.0 percent. Incremental and excess debt-free working capital were calculated based on a requirement of debt-free working capital as a percent of revenues of 40 percent. Management estimated their tax rate to be 33 percent.

See Exhibit 1.12 for the discounted cash flow method: calculation of incremental working capital.

Adjusted cash flow to invested capital was calculated for each year of the projections and for the terminal year based on subtracting the incremental debt-free working capital requirement and capital expenditures and adding back depreciation and amortization. We used a midyear convention to reflect the fact that earnings

EXHIBIT 1.11 Discounted Cash Flow Method

National Fastener & Machine Co. Discounted Cash Flow Method (1) Valuation Date: September 1, 20X5														
Assumptions WACC (2) Perpetuity Growth Rate (3) DFWC as a % of Revenue (4) Capitalization Rate (5) Tax Rate (6)	13.0% 4.0% 40.0% 9.0% 33.0%													
	FYE		Budget	4	4 Mo. Ended			Years E	Years Ended December 31	er 31,			Terminal Year	Year
	20X4		20X5		20X5	'	20X6		20X7		20X8			
	S		s		s		s		s		\$		s	
Net Revenues	37,135,207	100.0 4	40,106,024	100.0	15,452,737	100.0	44,116,626	100.0	47,645,956	100.0	50,028,254	100.0	52,029,384	100.0
Growth Rate (Year Over Year)			8.0%				10.0%		8.0%				4.0%	
Cost of Sales (excluding Depreciation)	28,845,702	- 1	28,836,231	71.9	11,161,792	72.2	31,719,854	71.9	34,257,442	71.9		71.9	37,409,127	71.9
Gross Proht	8,289,505	_	11,269,793	28.1	4,290,945	27.8	12,396,772	28.1	13,388,514	28.1	14,057,939	28.1	14,620,257	28.1
Operating Expenses EBITDA, Adiusted	2,849,950	14.6	5,975,798	14.9	2,263,513	14.6	6,214,829	14.1	6,463,423	13.6	6,721,959	13.4	6,990,838	13.4
Less: Tax Depreciation					(460,410)	(3.0)	(1,570,118)	(3.6)	(1,871,816)	(3.9)	(2,114,139)	(4.2)	(1,821,028)	(3.5)
Earnings to Invested Capital Before Tax				1	1.567.022	10.1	4.611.824	10.5	5.053.275	10.6	5.221.841	10.4	5.808.391	11.2
(6) Estimated Income Tax					517,117	3.3	1,521,902	3.4	1,667,581	3.5	1,723,207	3.4	1,916,769	3.7
Adjusted Net Income to Invested Capital				1	1,049,905	8.9	3,089,922	7.0	3,385,694	7.1	3,498,633	7.0	3,891,622	7.5
(4) Less: Incremental Debt-Free Working Capital	_				(1,700,933)	(111.0)	(1,604,241)	(3.6)	(1,411,732)	(3.0)	(952,919)	(1.9)	(800,452)	(1.5)
(7) Plus: Depreciation and Amortization					460,410	3.0	1,570,118	3.6	1,871,816	3.9	2,114,139	4.2	1,821,028	3.5
(7) Less: Capital Expenditures				l	(245,571)	(1.6)	(1,544,082)	(3.5)	(1,667,608)	(3.5)	(1,750,989)	(3.5)	(1,821,028)	(3.5)
Cash Flow to Invested Capital					(436,189)	(2.8)	1,511,718	3.4	2,178,170	4.6	2,908,864	5.8	3,091,170	5.9
(8) Terminal Value													34,346,329	
Cash Flow to Invested Capital					(436,189)		1,511,718		2,178,170		2,908,864		34,346,329	
Period					0.17		0.83		1.83		2.83		2.83	
Discount Factors					0.9798		0.9032		0.7993		0.7073		0.7073	
PV of Cash Flows to Invested Capital					(427,394)		1,365,333		1,740,930		2,057,475		24,293,574	
Present Value Through 20X8			4,736,344											
Terminal Value		2	24,293,574											
Present Value of Invested Capital		121	29,029,917											
(9) Plus: Excess DFNWC			1,781,159											
(10) Plus: PV of Depr. / Amort. Overhang			630,532											
Indicated Value of Invested Capital		3	31,441,608											
Less: Interest-Bearing Debt			1											
Indicated Value of 100% of the Equity		33	31,441,608											
SAY		ωII	31,400,000											

EXHIBIT 1.11 (Continued)

- (1) Projections provided by management.
- (2) See Exhibit 1.18 for calculation of the weighted average cost of capital.
- (3) The long-term growth rate reflects industry growth expectations and projected long-term inflation.
- (4) Debt-free working capital requirements based on an analysis of historical requirements and an analysis of the industry. See Exhibit 1.9 for normalized DFNWC requirements; Exhibit 1.12 for calculation of incremental DFNWC in discounted cash flow analysis.
- (5) The capitalization rate equals the discount rate less the long-term growth rate.
 - (6) Based on projected combined state and federal tax rate per management.
- (7) Depreciation expense and capital expenditures are per client projections. See Exhibit 1.7 for detail. Depreciation and capital expenditures are expected to be equal in the terminal year.
 - (8) To compute the terminal value, the terminal year cash flow is divided by the capitalization rate.
 - (9) See Exhibit 1.12 for calculation of excess DFNWC.
- (10) Terminal year assumption is that depreciation will equal to capital expenditures for simplification of calculation. Projected depreciation is expected to exceed capital expenditures for several years beyond the projection period. See Exhibit 1.13.

EXHIBIT 1.12 Discounted Cash Flow Method: Calculation of Incremental Working Capital

Calculation of Incremental Working Capital Valuation Date: September 1, 20X5

National Fastener & Machine Co. Discounted Cash Flow Method

	12 Months		Years	Years Ended December 31,	er 31,	Terminal Year
	Ended	Budget	$\overline{20X}$	20X7	20X8	
	8/31/20X5	20X5				S
Revenues	\$35,853,691	\$40,106,024	\$44,116,626	\$47,645,956	\$50,028,254	\$52,029,384
Growth		12%				4%
Normal DFNWC as % of Net Revenues	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Normal DFNWC	14,341,476	16,042,409	17,646,650	19,058,382	20,011,302	20,811,754
Incremental DFNWC		1,700,933	1,604,241	1,411,732	952,919	800,452
The Company's Actual DFNWC at the Valuation Date	16,122,635					
Less Normal DFNWC at the Valuation Date	14,341,476					
Excess (Deficient) DFNWC at the Valuation Date	1,781,159					

and cash flow come in throughout the year. In the terminal year, depreciation and amortization were set equal to capital expenditures. Based on management's projected tax depreciation, tax depreciation will actually exceed capital expenditures for several years beyond the discrete projection period. The excess depreciation expense above the terminal year normalized expense will result in tax savings for a few years beyond the discrete projection period. See Exhibit 1.13 for the calculation of the depreciation overhang.

EXHIBIT 1.13 Discounted Cash Flow Method: Calculation of Depreciation Overhang

National Fastener & Machine Co. Discounted Cash Flow Method Calculation of Depreciation Overhang Valuation Date: September 1, 20X5

			Years Ended	December 31	,	
	20X9	20X0	20X1	20X2	20X3	20X4
Depreciation, Tax	\$2,313,793	\$2,506,005	\$2,694,596	\$2,832,887	\$2,916,528	\$2,997,555
Capital Expenditure	1,821,028	1,893,870	1,969,624	2,048,409	2,130,346	2,215,560
Depreciation in Excess of Capex	492,764	612,135	724,972	784,478	786,183	781,996
Tax Benefit	162,612	202,005	239,241	258,878	259,440	258,059
PV Period	3.83	4.83	5.83	6.83	7.83	8.83
PV Factor	0.6259	0.5539	0.4902	0.4338	0.3839	0.3397
Present Value of Tax Benefit Sum of PV of Depreciation Overhang	101,786 630,532	111,896	117,276	112,303	99,599	87,672

EXERCISE 40 In the terminal year of a discounted cash flow analysis, analysts often use the simplifying assumption that depreciation equals capital expenditures.

- a. True
- b. False

The value of the depreciation "overhang" was captured by calculating the present value of the tax benefit for the years beyond the discrete projection, as illustrated in Exhibit 1.13. The calculation relies on the same WACC as used in the discounted cash flow analysis. Based on the calculation, the present value of the depreciation overhang—the tax benefit from estimated tax depreciation above capital expenditures—is \$630,532, which is added back to the operating value of the Company in the discounted cash flow analysis.

As discussed in the capitalized cash flow method, the excess debt-free working capital of \$1,781,159 was added to the operating value of the Company.

The concluded value of the Company based on the discounted cash flow method is \$31,400,000. See Table 1.16 for a summary conclusion of value under the discounted cash flow method.

	Calculated Value
Invested Capital	\$29,029,917
Add: Excess Working Capital	\$ 1,781,159
Add: Present Value Depreciation Overhang	\$ 630,532
Less: Interest-Bearing Debt	\$ <u> </u>
Value on a Marketable, Control Interest Basis	\$31,441,608
Indicated Value of 100% of the Equity (Rounded)	\$31,400,000

1.11.4.3 Determination of Weighted Average Cost of Capital A number of steps are involved in calculating the weighted average cost of capital (WACC). These steps involve calculating the cost of equity, the cost of debt, and the determination of an optimal capital structure for the Company using industry averages. The WACC formula is:

WACC =
$$(k_e \times W_e) + (k_b \times W_b) + (k_{d/(bt)}[1 - t] \times W_d)$$

Where:

WACC = Weighted average cost of capital

 k_e = Cost of common equity capital

 W_e = Percentage of common equity in the capital structure, at market value

 k_p = Cost of preferred equity

 W_p = Percentage of preferred equity in the capital structure, at market value

 $k_{d/(pt)}$ = Cost of debt (pre-tax)

t = Tax rate

 W_d = Percentage of debt in the capital structure, at market value

EXERCISE 41 When using the direct equity basis instead of the invested capital basis, assumptions of capital structure can be avoided.

- a. True
- b. False

EXERCISE 42 When using the invested capital basis to determine a control value, the analyst should always use an optimal capital structure in the weighted average cost of capital.

- a. True
- b. False

1.11.4.3.1 Cost of Equity We used two widely accepted methods to estimate the cost of equity applicable to National Fastener: the modified capital asset pricing model (modified CAPM or MCAPM) and the build-up model.

The modified CAPM can be summarized as follows:

$$E(R_i) = R_f + \beta \times (RP_m) + RP_s \pm RP_c$$

Where:

 $E(R_i)$ = Expected rate of return on the security i

 R_f = Rate of return available on a risk-free security as of the valuation date

 β = Beta

 RP_m = Equity risk premium (market risk)

 RP_s = Risk premium for small size

 RP_c = Risk premium attributable to other company risk factors (company-specific risk)

We also applied an alternative method of calculating the cost of equity, called the build-up method. The build-up method can be summarized as follows:

$$E(R_i) = R_f + RP_m + RP_s \pm RP_i \pm RP_c$$

Where:

 $E(R_i)$ = Expected rate of return on security i

 R_f = Rate of return available on a risk-free security as of the valuation date

 RP_m = Equity risk premium (market risk)

 RP_s = Risk premium for small size

 RP_i = Industry risk premium

 RP_c = Risk premium attributable to other company risk factors (company-specific risk)

See Exhibit 1.14 for the calculation of the cost of equity.

EXERCISE 43 equity in the inco	Name the two methods most often used to derive a cost of ome approach.
1	
2	

EXERCISE 44 Should the build-up method and MCAPM rates of return be applied to income or cash flow?)
	-
	-

EXHIBIT 1.14 Cost of Equity

National Fastener & Machine Co.

Cost of Equity

Valuation Date: September 1, 20X5

Build-Up Method, Cost of Equity: $K_e = R_f + RP_m + RP_s + RP_i + RP_c$

			Historical	Supply Side
(1)	Risk-Free Rate (R_i)		2.62%	2.62%
	Equity Risk Premium (RP _m)		7.00%	6.21%
	Size Premium (RP _s)		5.78%	5.78%
	Industry Risk Premium (RP _i)		0.00%	0.00%
	Company-Specific Risk Premium (RP _c)		2.00%	2.00%
` '	1 7 1	k. =		16.61%
	MONEY I I C. (F. ' V. D. (O. DD.) DD. DD.			
	MCAPM Method, Cost of Equity: $K_e = R_f + (\beta \times RP_m) + RP_s + RP_m$	с		
			Historical	Supply Side
(1)	Risk-Free Rate (R ₆)		2.62%	2.62%
(6)	Beta (β)		0.71	0.71
. ,	Equity Risk Premium (RP _m)		7.00%	6.21%
	Size Premium (RP _s)		5.78%	5.78%
	Company-Specific Risk Premium (RP _c)		2.00%	2.00%
(- /	1 , . 1	k. =		14.83%
	Build-Up Method, Based on Duff & Phelps Data, Size-Specific Eq	uity R	isk Premium	
(1)	Risk-Free Rate (R _f)		2.62%	
` '	Equity Risk Premium (RP _m)		N/A	
(7)	Size-Specific Equity Risk Premium (RP _m + RP _s)		13.10%	
	Industry Risk Premium (RP _i)		0.00%	
, ,	Company-Specific Risk Premium (RP _c)		2.00%	
(- /		k. =		
	MOADMAN A LD LL D MOLDILL D			
	MCAPM Method, Based on Duff & Phelps Data			
(1)	Risk-Free Rate (R _f)		2.62%	
	Beta (β)		0.71	
. ,	Equity Risk Premium (RP _m)		5.05%	
	Size Premium over CAPM		6.10%	
, ,	Company-Specific Risk Premium (RP _c)		2.00%	
,0)	r . , . F	k. =		
	Build-Up Method, Based on Duff & Phelps Data, Based on Risk	Chara	cteristics	
(1)	Risk-Free Rate (R_i)		2.62%	
	Risk-Specific Equity Risk Premium		11.00%	
	Industry Risk Premium (RP _i)		0.00%	
	Company-Specific Risk Premium (RP _c)		2.00%	
(3)	company openic rank remain (ra c/	k. =		
	Range			o 17.72%
	Concluded Cost of Eq		16.00%	J 1/./2/0
	Concluded Cost of Eq	unty =	10.00 /0	

Notes

- (1) 20-Year Treasury Bond as of September 1, 20X5.
- (2) Duff & Phelps LLC 20X5 Valuation Handbook—Guide to Cost of Capital.
- (3) Duff & Phelps LLC 20X5 Valuation Handbook—Guide to Cost of Capital. Size premium for the 10th Decile (market cap. between \$3.037 and \$300.725 million).
- (4) Considered data from Duff & Phelps LLC 20X5 Valuation Handbook—Guide to Cost of Capital, but did not rely on the data because these broad SIC categories are not representative of the risk of the subject company.

EXHIBIT 1.14 (continued)

		Industry Risk	Premium for
		Historical	Supply Side
SIC Code	Companies	ERP (7.00%)	ERP (6.21%)
SIC 34 (Fabricated Metal Products, Except Machinery, and Transportation Equipment)	81	3.18%	2.83%
SIC 371 (Motor Vehicles and Motor Vehicle Equipment)	61	3.62%	3.21%
SIC 3711 (Motor Vehicles and Passenger Car Bodies)	10	1.34%	1.19%
SIC 3714 (Motor Vehicle Parts and Accessories)	47	4.59%	4.07%

- (5) Based on analysis of company and industry and on the financial and economic environment as of the valuation date.
- (6) See Exhibit 1.17 for calculation of beta.
- (7) Size-specific equity risk premiums are based on comparison of the Company to risk premium groups presented in Appendix 4 of the Duff and Phelps 20X5 Valuation Handbook—Guide to Cost of Capital (Smoothed Average Equity Risk Premium) Exhibit A.
- (8) Market Premium, Duff and Phelps 20X5 Valuation Handbook—Guide to Cost of Capital.
- (9) Size-specific equity risk premiums are based on comparison of the Company to risk premium groups presented in Appendix 4 of the Duff and Phelps 20X5 Valuation Handbook—Guide to Cost of Capital (Smoothed Average Premium over CAPM) Exhibit B.
- (10) Risk-specific equity risk premiums are based on comparison of the Company to risk premium groups presented in Appendix 4 of the Duff and Phelps 20X5 Valuation Handbook—Guide to Cost of Capital (Smoothed Average Equity Risk Premium) Exhibit D.

The first step was to begin with the risk-free rate of return, represented by the yield on long-term (20-year) constant maturity U.S. Treasury coupon bonds of 2.62 percent, as reported in the Federal Reserve Bulletin at the date of valuation.

EXERCISE 45 Why are long-term 20-year U.S. Treasury coupon bonds most often used for the risk-free rate of return in both the build-up method and the MCAPM?	

The second and third steps are to add the common stock equity risk premium and the size risk premium, both calculated using the Duff & Phelps LLC 20X5 Valuation Handbook—Guide to Cost of Capital. According to the D&P Valuation Handbook, the unconditional equity risk premium based on analysis of the historical period from 1926 to 20X4 was 7.00 percent and the unconditional equity risk premium based on the long-term supply-side market equity premium was 6.21 percent. These data are referred to as the CRSP equity risk premiums.

In the case of National Fastener, we applied the size-premium return in excess of CAPM of companies in the 10th decile (i.e., in the smallest decile) from Duff & Phelps. The source of these data was the Center for Research in Security Prices (CRSP) at the University of Chicago. This includes companies with less than approximately \$300.7 million in market value of equity. We relied on the data reported in the 20X5 Valuation Handbook—Guide to Cost of Capital. The indicated size premium (RP_s) was 5.78 percent.

In the Valuation Handbook, Duff & Phelps publishes Risk Premium Reports that provide two different types of premia: combined market and size risk premia ("risk premium over the risk-free rate") and beta-adjusted size premia ("risk premia over CAPM"). The data allow for comparative analysis between the subject company and the market data to capture the impact of size differences on risk based on provided measures of size. The Risk Premium Report, which relies on data from 1963 (as opposed to the CRSP data that go back to 1926), excludes speculative startups, distressed companies, high-financial-risk companies, and financial services companies. The Risk Premium Report presents eight measures of size in 25 different size portfolios, with Portfolio 1 including the largest companies and Portfolio 25 including the smallest companies. The size characteristics include market value of invested capital, book and market value of equity, historical earnings, and number of employees.

We compared the parameters of the Company to the criteria presented in the *Valuation Handbook* Risk Premium Reports to identify in which portfolio the Company would fall. The assumption of category for the factors of Market Value of Equity and Market Value of Invested Capital is based preliminarily on an estimate of the likely category and refined based on an iterative process. Based on this analysis, we concluded to the combined market and size premium of 13.10 percent and the smoothed premium over CAPM of 6.10 percent. The historical market risk premium for use with the smoothed premium over CAPM in the 20X5 Valuation Handbook's Risk Premium Report exhibits based on data from 1963 to 20X4 was 5.05 percent. See Exhibit 1.15 for comparison of the subject company to the portfolios in the Risk Premium Report.

We also compared the parameters of the Company to the combined market and size premiums, reflecting risk of the Company based on sales, operating income, and operating margin. The combined risk premium was 11.00 percent based on data in the *Valuation Handbook*. See Exhibit 1.16.

EXERCISE 46 What benchmark is the Duff & Phelps common stock equity risk premium return most often based on?

- a. S&P 500
- b. New York Stock Exchange
- c. Dow Jones Industrial Average
- d. Russell 5000

EXHIBIT 1.15 Comparison to the Historical Equity Risk Premiums by Characteristic

National Fastener & Machine Co.

Comparison to Historical Equity Risk Premiums by Characteristic

Based on the Duff & Phelps LLC 20X5 Valuation Handbook—Guide to Cost of Capital

Valuation Date: September 1, 20X5

			Valuation Handbook		
			Exhibits A	Exhibits B	
			Smoothed		
			Ave. Premium	Smoothed	
			over the	Premium over	
		Implied	Risk-Free Rate	CAPM	
Characteristic	Subject Co.	Category	$(\mathbf{RP}_{\mathrm{m+s}})$	(\mathbf{RP}_{s})	
(1) Market Value of Equity	\$30,100,000	25	13.92%	7.03%	
(2) Book Value of Equity	\$26,185,016	25	12.49%	5.57%	
(3) 3-Year Ave. Net Income	\$2,009,949	25	13.53%	6.49%	
(4) Market Value of Invested Capital	\$30,100,000	25	13.81%	6.76%	
(2) Total Assets	\$29,880,047	25	13.02%	6.01%	
(3) 3-Year Ave. EBITDA	\$4,083,138	25	13.24%	6.23%	
(5) Sales	\$35,853,691	25	12.40%	5.74%	
(6) Number of Employees	236	25	12.40%	6.05%	
		Min	12.40%	5.57%	
		Max	13.92%	7.03%	
		Mean	13.10%	6.24%	
		Median	13.13%	6.14%	
		Selected	13.10%	6.10%	

Notes

- (1) See Exhibit 1.25. Implied category assumption is based on reiterative process.
- (2) As of September 1, 20X5.
- (3) Three-Year Average, 20X2 to 20X4.
- (4) Market Value of the Equity plus Interest-Bearing Debt as of September 1, 20X5. Implied category assumption is based on reiterative process.
- (5) Twelve months ended September 1, 20X5.
- (6) As of December 31, 20X4, per management.

EXERCISE 47 In applying a Duff & Phelps CRSP size risk premium, what are some of the choices available to analysts?

- a. 10th-decile annual beta
- b. 10th-decile monthly OLS beta
- c. 10th-decile monthly sum beta
- d. 10A monthly OLS beta
- e. 10B monthly OLS beta
- f. Micro-cap annual beta
- g. Micro-cap monthly OLS beta
- h. Micro-cap sum beta
- i. 10W monthly OLS beta
- j. 10X monthly OLS beta
- k. 10Y monthly OLS beta
- l. 10Z monthly OLS beta
- m. All of the above

EXHIBIT 1.16 Comparison to Historical Equity Risk Premiums Ranked by Risk Measures

National Fastener & Machine Co.

Comparison to Historical Equity Risk Premiums Ranked by Risk Measures

Based on the Duff & Phelps LLC 20X5 Valuation Handbook—Guide to Cost of Capital

Valuation Date: September 1, 20X5

Coefficient of Variation of Operating Margin

	20X4	20X3	20X2	20X1	20X0
(1) Net Sales	37,135,207	37,117,830	34,223,772	30,915,122	28,520,510
(1) Operating Income	2,849,950	3,465,194	2,464,642	1,616,073	832,097
Operating Margin	7.7%	9.3%	7.2%	5.2%	2.9%

Standard Deviation of

Operating Margin 2.5% Average Operating Margin 6.5% Coefficient of Variation 38.1%

Coefficient of Variation of Return on Book Value of Equity

			20X4	20A3	20X2	20X1	20X0
(1)	Book Value		25,740,923	24,871,102	23,000,736	22,124,513	21,362,364
(1)	Adjusted Net Income		1,938,288	2,398,487	1,693,073	1,113,946	594,096
	Return on Book Equity		7.5%	9.6%	7.4%	5.0%	2.8%
	Standard Deviation of ROE	2.6%					
	Average ROE	6.5%					
	Coefficient of Variation	40.6%					

203/2

203/2

203/1

203/0

			Valuation
			Handbook
			Exhibit D
		Implied	Smoothed
Characteristic	Subject Co.	Category	Ave. Premium
Operating Margin	6.5%	20	11.67%
CV of Operating Margin	38.1%	6	11.29%
CV of Return on Book Equity	40.6%	13	9.81%
		Mean	10.92%
		Median	11.29%
		Selected	11.00%

Note:

(1) See Exhibits 1.3 and 1.4.

EXERCISE 48 Which of these rates of return are derived using Duff & Phelps data?

- a. Minority rates of return
- b. Control rates of return
- c. Majority rates of return
- d. Neutral

Beta is a measure of the systematic risk of a particular investment relative to the market for all investment assets. Betas for each of the guideline companies were obtained from a third-party licensed database. Based on these data (see Exhibit 1.17), we concluded to an unlevered beta of 0.61. The identified unlevered beta was then levered at the estimated long-term capital structure of National Fastener. Management is in the process of obtaining financing for the Company's operations at an estimated level of 20 percent of the invested capital of the business. This level of financing is within the range of the debt to invested capital of the guideline companies and just slightly above the median level of debt. It is also reasonable considering analysis of industry levels of debt financing.

EXHIBIT 1.17 Industry Beta Analysis

National Fastener & Machine Co.

Industry Beta Analysis

Valuation Date: September 1, 20X5

		Levered	Interest- Bearing Debt		Market Value of Equity		Total Invested Capital	Tax	Unlevered
Ticker	Guideline Companies	Beta (1)	(\$000s)	%	(\$000s)	%	(\$000s)	Rate	Beta
EML	The Eastern Co.	0.39	3,571	3.4%	101,295	96.6%	104,866	32.0%	0.38
PFIN	P & F Industries, Inc.	0.27	21,660	38.4%	34,703	61.6%	56,363	38.0%	0.19
STS	Supreme Industries, Inc.	0.64	8,667	6.5%	125,046	93.5%	133,713	31.8%	0.61
SCX	The L.S. Starrett Co.	1.21	20,104	17.4%	95,705	82.6%	115,809	38.0%	1.07
TWIN	Twin Disc, Inc.	nmf	13,802	8.3%	153,092	91.7%	166,894	28.4%	nmf
VC	Visteon Corp.	1.73	18,900	8.6%	200,164	91.4%	219,064	35.8%	1.63
			Median	8.4%		91.6%			0.61
			Mean	13.8%		86.2%			0.78

Selected Beta: 0.61

Estimated Company Levered Beta: <u>0.71</u>

Assumptions:

(2) Estimated Company Capital Structure

% of Debt to Invested Capital 20.0% % of Equity to Invested Capital 80.0%

(3) Estimated Effective Tax Rate 33.0%

Subject Company Levered Beta = Unlevered Beta \times [1 + [(Debt/Equity) \times (1 - Tax Rate)]]

Notes

- (1) As reported in third-party licensed database.
- (2) Based on analysis of the industry and discussions with management regarding plans to finance the operations.
- (3) Based on projected combined state and federal tax rate per management.

Based on an assumption of 20 percent debt and 80 percent equity as a percent of invested capital, the calculated levered beta was 0.71.

EXERCISE 49 When using the modified capital asset pricing model (MCAPM) to derive an equity cost of capital for a control interest, it is sometimes necessary to adjust beta for differences between the capital structure of the public companies and the capital structure of the subject company being valued. This is not necessary if the capital structure is assumed to be the same. Given

the following information, calculate the unlevered and relevered beta using the Hamada formula.

a. Average beta of guideline public companies = 1.4

Tax rate = 40%

Market value capital structure = 35% debt, 65% equity

The formula for unlevered beta is:

$$Bu = Bl / (1 + (1 - t) (Wd / We))$$

Where:

Bu = Beta unlevered

Bl = Beta levered

t = Tax rate for the company

Wd = Percentage of debt in the capital structure (at market value)

We = Percentage of equity in the capital structure (at market value)

b. Assuming that National Fastener has a capital structure of 25 percent debt and 75 percent equity, what would be the beta?

The formula to relever the beta is:

Bl = Bu (1 + (1 - t) (Wd / We))

For National Fastener, we considered industry risk premium for SIC codes 34, Fabricated Metal Products, Except Machinery and Transportation Equipment; 371, Motor Vehicles and Motor Vehicle Equipment; 3711, Motor Vehicles and Passenger Car Bodies; and 3714, Motor Vehicle Parts and Accessories. We did not rely on the data because these broad SIC categories are not representative of the risk of the subject company. While we did not rely on the industry risk premium in the BUM, we did not change the RP_c for the model but relied on the same RP_c as used in the other cost of capital models. Furthermore, industry risk premium is not appropriate for use in the Duff & Phelps Risk Premium Report's combined market and size risk premia data and the risk premium based on sales, operating income, and operating margin.

The final step is to add a company-specific premium that takes into account additional risks specific to the Company. These additional risks include:

- Company's depth of management. The Company relies on key executive leadership without a formal succession plan.
- *The growth potential in the Company's market*. The Company is projected to grow in the next few years through the acquisition of a new customer.
- *The stability of the Company's earnings and gross profits.* The Company has a consistent history of generating profits.
- *The financial structure of the Company.* The Company is financially sound.
- *The geographic location of the Company.* The Company is located in Anycity, Anystate. (See earlier discussion on the local economy.)

- The Company's order backlogs. The Company has a sufficient amount of contract backlogs.
- *The diversification of the Company's customer base.* The majority of the Company's revenue is generated from only a few customers. The Company could be negatively impacted should any of these customers be lost.

After considering the financial ratio analysis and these risk factors, plus the size of the Company as compared to the Duff & Phelps companies, it is our opinion that a company-specific premium of 2 percent is appropriate for the Company.

EXERCISE 50 A list of risk factors was previously presented for National Fastener to calculate the specific risk premium. Discuss the different methods for determining what the actual company-specific risk premium should be.

EXERCISE 51 Company specific risk premiums can be determined from Duff & Phelps data.

- a. True
- b. False

EXERCISE 52 Assume that the Duff & Phelps historical CRSP equity risk premium is 7 percent and the 10th-decile size premium is 5.78 percent. Assume that the relevered beta of the guideline companies is 0.71 under MCAPM and that the industry risk premium is not relied upon in the BUM. Calculate the cost of equity for National Fastener under the MCAPM and BUM methods.

EXERCISE 53 Assume that the Duff & Phelps supply side CRSP equity risk premium is 6.21 percent and the 10th-decile size premium is 5.78 percent. Assume that the relevered beta of the guideline companies is 0.71 under MCAPM and that the industry risk premium is not relied upon in the BUM. Calculate the cost of equity for National Fastener under the MCAPM and BUM methods.

EXERCISE 54 Assume that the Duff & Phelps historical market risk premium for use with the smoothed premium over CAPM is 5.05 percent and the 25th-size category premium is 6.10 percent. Calculate the cost of equity for National Fastener.

EXERCISE 55 Assume that the Duff & Phelps combined equity risk premium and size premium for the 25th-size category is 13.10 percent. Calculate the cost of equity for National Fastener.

EXERCISE 56 In addition to equity risk premium based on eight alternative measures of size, Duff & Phelps presents risk premium data based on three measures of risk that are not based initially on size. Name those three measures of risk.
1
2
3
EXERCISE 57 Assume that the analysis using the three alternative measures of risk from Duff & Phelps results in a cost of equity of 15.62 percent. What is the range of the seven costs of equity for National Fastener and what is the conclusion for the cost of equity? Explain your reasons and support.
Range of costs of equity:% to%
Concluded cost of equity%
Supporting reasons:

Given the range of costs of equity, we selected 16 percent (rounded) for National Fastener.

1.11.4.3.2 Cost of Debt Next, we determined the cost of debt. The Company has not historically relied on debt financing but intends to do so in the future. Based on the financial strength of the Company and discussions with management regarding expected lending rates, the Company's cost of debt was assumed to be 4.15 percent based on the Moody's Aaa rate as of September 1, 20X5. From this rate, which is called the debt rate, a 33 percent tax rate is deducted. The result is the after-tax cost of debt of 2.78 percent.

EXERCISE 58 Which of these factors causes the cost of debt to be tax-affected?

- a. Debt principal is tax deductible.
- b. Interest expense is tax deductible.
- c. It should not be tax-affected since equity is not tax-affected.
- d. Debt and interest are tax deductible.

1.11.4.3.3 Weighted Average Cost of Capital Finally, we determined the WACC using the debt and equity rates that were already calculated. The equity discount rate is multiplied by an equity percentage, and the debt discount rate is multiplied by a debt percentage as determined based on average capital structure for a company in this industry. Based on analysis of National Fastener's financial statements, the guideline companies, and statements by National Fastener's management that they would be adding financing (already bank approved) in the future, a normalized capital structure of 20.0 percent debt and 80.0 percent equity was assumed for National Fastener as of September 1, 20X5. The percentages were then multiplied by the equity and after-tax debt discount rates calculated earlier (16 percent and 2.78 percent) and then summed to arrive at the WACC discount rate. This rate was calculated to be 13 percent. See Exhibit 1.18.

EXHIBIT 1.18 Weighted Average Cost of Capital

	<u> </u>		
National Fastener & Machir Weighted Average Cost of Ca Valuation Date: September 1	apital		
(1) Cost of Equity		$k_e =$	16.00%
After-Tax Cost of Debt:	$\mathbf{k}_{\mathrm{d}} = \mathbf{K}_{\mathrm{b}}(1 - \mathbf{t})$		
(2) Borrowing Rate (K _b) (3) Estimated Tax Rate (t)			4.15% 33.0%
Cost of Debt		$k_d =$	2.78%
Weighted Average Cost of	of Capital (WACC	C)	
	Capital Structure	Cost	Weighted Cost
(4) Debt (4) Common Equity	20.0% 80.0%	2.78% 16.00%	0.56% 12.80%
		WACC =	13.36%
		Rounded =	<u>13.00%</u>

Notes:

- (1) See Exhibit 1.14.
- (2) Based on Moody's Aaa rate as of September 1, 20X5.
- (3) Based on projected combined state and federal tax rate per management.
- (4) Based on analysis of the industry and discussions with management regarding plans to finance the operations.

EXERCISE 59 Using the information in the text, calculate the weighted average cost of capital for National Fastener.
EXERCISE 60 Which methods can be used to determine the weights in the
weighted average cost of capital?
a. Iterative process
b. Guideline public companies
c. Aggregated public industry data d. Risk Management Associates
e. Book values
f. Anticipated capital structure
EXERCISE 61 Explain the iterative process for determining the weights in the weighted average cost of capital.
EXERCISE 62 Changing the amount of debt in the capital structure of the company has no effect on the return on equity.
a. True b. False
EXERCISE 63 When valuing a controlling interest in a company, should you use the optimal capital structure based on public data or the capital structure anticipated to be employed by the owner of the company?

From this amount, a 4 percent growth factor is deducted to arrive at a net cash flow capitalization rate for the next year. The 4 percent growth factor is a long-term growth component reflecting inflationary and other growth used to adjust the capitalization rate. It was also based on management's projection of growth.

Under the capitalization of cash flow method, the indicated amount of cash flow, estimated three different ways (trailing 12 months, most recent fiscal year, and straight historical average of normalized earnings for past three years), was grown by the anticipated long-term average growth rate of 4 percent; then capitalized at the capitalization rate, here 9 percent. The same methodology was used to capitalize cash flow in the terminal year of the discounted cash flow method.

EXERCISE 64 Calculate the capitalization rate from the information in the text and calculate the value based on the trailing 12 months cash flow.

EXERCISE 65 Items used to support growth rates in the capitalized cash flow method of the income approach include:

- a. Inflation
- b. Nominal gross domestic product
- c. Industry growth rate
- d. Actual historical company growth rate
- e. All of the above

1.11.5 Market Approach

1.11.5.1 Guideline Public Company Method A market approach using guideline public companies requires estimates of a multiple derived from publicly traded guideline companies and ongoing earnings (or a variation thereof, such as EBITDA) for the subject entity.

1.11.5.1.1 Search for Guideline Public Companies Guideline public companies can provide a reasonable basis for comparison to the relevant investment characteristics of the company being valued. They are most often publicly traded companies in the same or similar business as the valuation subject. Guideline companies are used as a basis to develop valuation conclusions with respect to a subject company under the presumption that a similar market may exist for the subject company as exists for the guideline companies.

Ideal guideline companies are in the same or similar business as the company being valued. However, if there is insufficient evidence in the same or similar business, an option may be to consider companies with an underlying similarity of relevant investment characteristics such as markets, products, growth, cyclical variability, and other salient factors. [Note: The selection of businesses in a completely different area may be difficult to support.]

We performed an independent search for guideline companies using a database of public companies. Some of the criteria were as follows:

- Companies listed under SIC codes 3451 (Screw Machine Products), 3452 (Bolts, Nuts, Screws, Rivets, and Washers), and 3714 (Motor Vehicle Parts and Accessories)
- A general search for "fastener" in company descriptions
- Confirmation that adequate financial data were available for the company
- Confirmation that the company's stock was actively traded on an exchange or in the over-the-counter market with price data available on a daily basis

We also considered a list of competitors and other companies provided by management. After discussing the prospective guideline companies with management, we concluded that six guideline public companies were similar enough to include in our analysis. These companies are discussed briefly below.²⁵

The Eastern Co. (NASDAQ: EML)—Designs, manufactures, and markets industrial and vehicular hardware throughout North America; manufactures electronic and mechanical locking devices, both keyed and keyless, for the computer, electronics, vending, and gaming industries; produces expansion shells for use in supporting the roofs of underground mines; and manufactures specialty malleable and ductile iron castings. Eastern's TTM revenues as of July 4, 20X5, were \$144.1 million.

P&F Industries, Inc. (NASDAQ: PFIN)—Imports, manufactures, and sells pneumatic hand tools primarily to the retail, industrial, and automotive markets. P&F also manufactures and distributes its own line of industrial pneumatic tools and parts to refineries, chemical plants, power generation facilities, heavy construction enterprises, and oil and mining companies. In addition, P&F is a developer, importer, and manufacturer of hardware for fencing, patio products, and door and window accessories. Its TTM revenues as of August 31, 20X5, were \$83.2 million.

Supreme Industries, Inc. (NYSE: STS)—Manufactures specialized commercial vehicles, including truck bodies, trolleys, and specialty vehicles that are attached to a truck chassis. Some examples of specialized commercial vehicles are dump bodies, utility bodies, and garbage packers. As of June 27, 20X5, Supreme's TTM revenues were \$257.3 million.

The L.S. Starrett Co. (NYSE: SCX)—Manufactures various measuring and cutting products throughout the world, including North America, the United Kingdom, Brazil, and China. Some of its products include precision tools, electronic gauges, optical vision and laser measuring equipment, custom engineered granite solutions, tape measures, levels, and band saw blades. TTM revenues as of August 31, 20X5, were \$241.6 million.

Twin Disc, Inc. (NASDAQ: TWIN)—Designs, manufactures, and sells marine and heavy-duty off-highway power transmission equipment. Products offered include marine transmissions, surface drivers, propellers, and boat management systems as well as power-shift transmissions, hydraulic torque converters, power take-offs, industrial clutches, and controls systems. Its TTM revenues as of August 31, 20X5, were \$265.8 million.

²⁵Descriptions of the guideline companies are largely drawn from SEC filings. Language has, in places, been extracted wholly or largely verbatim and/or substantially paraphrased.

Visteon Corp. (NYSE: VC)—Designs, engineers, and manufactures products for a wide range of original equipment vehicle manufacturers, including BMW, Ford, General Motors, Hyundai, Renault, and Toyota. Visteon's products include vehicle cockpit electronics, such as infotainment systems, audio systems, climate controls, and electronic control modules, and thermal energy management products, which include climate air handling modules, powertrain cooling modules, and engine induction systems. Its TTM revenues as of August 31, 20X5, were \$406.7 million.

EXERCISE 66 Size is often a consideration in selecting guideline public companies. The general criterion for using size as a selection parameter is:

- a. Two times
- b. Five times
- c. Ten times
- d. None of the above

EXERCISE 67 In the valuation of National Fastener, only one company, P&F Industries, Inc., was comparable in size, but all the guideline companies operate in the same industry and were not considered too big to provide growth, margin, and multiple data for National Fastener. Given that fact, which option would probably result in the best presentation of the GPCM in the valuation of National Fastener?

- a. Only use P&F Industries.
- b. Use all guideline public companies.
- c. Reject the guideline public company method.
- d. Use the guideline public company method but only as a reasonableness test for the other approaches.

EXERCISE 68 Guideline public company methods are not applicable to smaller businesses such as National Fastener.

- a. True
- b. False

EXERCISE 69 Which initial selection criteria are generally used by analysts in choosing guideline public companies?

- a. Size
- b. Return on equity
- c. Profit margin
- d. Industry similarity
- e. Similar products and services
- f. Growth rates
- g. Investors' similarities

We have chosen to use four multiples to value the Company: price to earnings and MVIC to earnings before interest, taxes, depreciation and amortization (EBITDA), to earnings before interest and taxes (EBIT), and to revenues. We also believe that the earnings, EBITDA, EBIT, and revenue multiples are appropriate because the Company has a strong income statement and is profitable. We have calculated trailing 12 months, most recent fiscal year, and three-year multiples because of the cyclical nature of the industry. Adjustments have been made to the financial statements of the guideline companies to reflect nonrecurring items. A summary of guideline company multiples is presented in Exhibit 1.19. A comparative financial analysis of guideline companies is presented in Exhibit 1.20. A summary of historical financial data, margins, and ratios for each of the guideline companies is presented in Exhibits 1.21 a through f.

EXHIBIT 1.19 Guideline Public Company Method: Ranking of Market Multiples

National Fastener & Machine Co. Guideline Public Company Method Ranking of Market Multiples

_	Most Recent 12 Months					
	Price to	Inves				
	Earnings	Net Revenues	EBIT	EBITDA		
The Eastern Co.	17.1	0.73	11.72	8.28		
P & F Industries, Inc.	10.4	0.68	9.21	6.17		
Supreme Industries, Inc.	12.2	0.52	8.54	6.94		
The L.S. Starrett Co.	15.5	0.48	10.88	5.98		
Twin Disc, Inc.	11.0	0.63	8.34	5.53		
Visteon Corp.	10.1	0.54	6.74	4.78		
Mean	12.7	0.60	9.24	6.28		
Median	11.6	0.58	8.88	6.08		
Coefficient of Variation	22.7%	16.4%	19.6%	19.3%		

_	Wiost Recent Lisear Tear				
	Price to	Inves			
	Earnings	Net Revenues	EBIT	EBITDA	
The Eastern Co.	13.1	0.74	8.82	6.82	
P & F Industries, Inc.	15.1	0.75	13.29	8.53	
Supreme Industries, Inc.	14.6	0.57	10.16	7.91	
The L.S. Starrett Co.	15.5	0.48	10.88	5.98	
Twin Disc, Inc.	11.0	0.63	8.34	5.53	
Visteon Corp.	10.0	0.58	6.44	4.61	
Mean	13.2	0.63	9.66	6.56	
Median	13.8	0.61	9.49	6.40	
Coefficient of Variation	17.1%	17.0%	24.4%	22.6%	

Most Recent Fiscal Year

_	Three-Year Averages						
	Price to	Inves	Invested Capital to				
	Earnings	Net Revenues	EBIT	EBITDA			
The Eastern Co.	12.9	0.71	8.67	6.83			
P & F Industries, Inc.	13.7	0.80	12.83	8.56			
Supreme Industries, Inc.	13.8	0.56	9.22	7.39			
The L.S. Starrett Co.	20.3	0.47	13.71	6.55			
Twin Disc, Inc.	17.2	0.61	11.62	6.70			
Visteon Corp.	12.5	0.67	8.03	5.42			
Mean	15.1	0.64	10.68	6.91			
Median	13.8	0.64	10.42	6.77			
Coefficient of Variation	20.0%	18.2%	22.1%	15.0%			

EXHIBIT 1.20 Guideline Public Company Method: Comparative Financial Analysis

National Fastener & Machine Co. Guideline Public Company Method Comparative Financial Analysis									
(\$000s)	Subject	Mean	Median	EML	PFIN	STS	SCX	TWIN	VC
Comparative Size Total Revenues	35,854	233,104	249,402	144,111	83,221	257,254	241,550	265,790	406,700
Total Assets	29,880	170,255	166,305	120,337	75,567	116,593	212,272	249,862	246,900
Total Market Capitalization	30,100	132,785	124,761	104,866	56,363	133,713	115,809	166,894	219,064
Asset Management Ratios									
Debt-Free Working Cap Turnover	2.2	2.9	2.5	2.4	2.6	5.2	2.2	2.3	2.8
Asset Turnover	1.2	1.4	1.2	1.2	1.2	2.2	1.1	1.0	1.5
Liquidity Ratios									
Debt-Free Current Ratio	7.1	4.63	4.41	0.9	4.8	3.8	6.1	3.2	4.0
Debt-Free Quick Ratio	4.9	2.27	2.24	2.8	1.5	1.8	2.7	1.2	3.5
Leverage Ratios									
Debt to Equity (Book)	%0.0	17.9%	12.0%	4.8%	51.2%	10.0%	17.6%	%6.6	14.1%
Debt to Capital (Book)	%0.0	14.0%	10.7%	4.5%	33.9%	9.1%	14.9%	%0.6	12.3%
Times Interest Earned	N/M	23.3	21.7	40.3	8.1	24.3	14.9	33.0	19.1
Profitability									
Net Profit Margin	6.3%	4.1%	4.1%	4.1%	4.0%	4.0%	7.6%	5.2%	4.9%
EBIT Margin	8.6%	%9.9	%8.9	6.2%	7.4%	6.1%	4.4%	7.5%	8.0%
EBITDA Margin	12.1%	%9.6	%6.6	8.8%	11.0%	7.5%	8.0%	11.3%	11.3%
Return on Assets	7.5%	6.1%	5.5%	5.2%	5.5%	9.3%	3.0%	5.5%	7.9%
Return on Common Equity (Book)	8.6%	10.4%	8.8%	7.5%	8.0%	12.4%	4.9%	9.5%	19.8%
Profitability (3-Year Averages)									
Net Profit Margin	5.5%	3.8%	3.7%	5.3%	3.6%	3.8%	1.9%	3.3%	4.9%
EBIT Margin	8.2%	6.3%	6.1%	8.2%	6.3%	%0.9	3.5%	5.3%	8.3%
EBITDA Margin	11.3%	9.4%	9.3%	10.4%	9.4%	7.5%	7.2%	9.5%	12.4%
3-Year Historical Annual Growth									
Net Revenues	4.2%	2.8%	-0.5%	-5.4%	11.9%	~9.0-	-0.5%	-3.5%	14.6%
Net Income	7.0%	54.2%	14.4%	-5.8%	5.1%	%2'9	258.5%	38.7%	22.2%
Earnings Before Interest & Taxes	7.4%	32.3%	14.1%	-7.0%	4.6%	%6.0	147.3%	23.7%	24.3%
Earnings Before Int., Taxes, Depr. & Amort.	8.9%	%8.6	7.8%	-5.4%	3.3%	2.0%	30.2%	12.3%	16.6%

EXHIBIT 1.21 Guideline Public Company Method: Detail by Company

The Eastern Co. EML					
	12 Months				'X2-'X4
FINANCIAL	Ended		al Year Ende		Growth
STATEMENT DATA (Tho. \$)	20X5/06	20X4/12	20X3/12	20X2/12	Rate
Net Revenues	144,111	140,825	142,458	157,509	-5.4%
Depreciation & Amortization	3,722	3,486	2,825	3,440	0.7%
Interest Expense	222	255	323	369	-17.0%
Earnings Before Taxes	8,707	11,529	10,114	13,225	-6.6%
Net Income	5,924	7,661	6,902	8,626	-5.8%
Net Profit Margin	4.1%	5.4%	4.8%	5.5%	
Effective Tax Rate	32.0%	33.5%	31.8%	34.8%	
Cash, Equiv., Mkt. Sec. & Accts Rec.	33,266	32,899	36,273	36,851	-5.5%
Total Current Assets	71,251	71,291	70,994	71,824	-0.4%
Total Current Liabilities	12,961	13,446	13,615	14,904	-5.0%
Net Working Capital	58,290	57,845	57,379	56,920	0.8%
Short-Term Interest-Bearing Debt	1,071	1,071	1,786	1,429	-13.4%
Debt-Free Net Working Capital	59,361	58,916	59,165	58,349	0.5%
Total Assets	120,337	121,271	113,858	115,854	2.3%
Average Total Assets	117,677	117,564	114,856		
Long-Term Interest-Bearing Debt	2,500	3,214	4,286	6,071	-27.2%
Common Equity	75,137	74,975	81,505	71,582	2.3%
Average Common Equity	79,400	78,240	76,543		
Interest-Bearing Debt to Invested Capital	4.5%	5.4%	6.9%	9.5%	
ADJUSTED EARNINGS (Tho. \$)	_				
Earnings Before Taxes (as reported)	8,707	11,529	10,114	13,225	-6.6%
Gain (loss) on sale of equipment and other assets	(2)	(69)	(116)	2	
Provision for doubtful accounts	(13)	(38)	(106)	(147)	
Total Adjustments	15	107	223	146	
Adjusted Earnings Before Taxes	8,722	11,636	10,337	13,370	-6.7%
Estimated Income Tax Rate	32.0%	33.5%	31.8%	34.8%	
Adjusted Net Income	5,934	7,732	7,054	8,721	-5.8%
Adjusted Net Profit Margin	4.1%	5.5%	5.0%	5.5%	
Adjusted Debt-Free Net Income	6,085	7,902	7,274	8,962	-6.1%
Adj. Earnings Before Interest & Taxes	8,944	11,890	10,659	13,740	-7.0%
Adjusted EBIT Margin	6.2%	8.4%	7.5%	8.7%	
Adj. Earnings Before Int., Taxes, Depr. & Amort.	12,666	15,377	13,485	17,179	-5.4%
Adjusted EBITDA Margin	8.8%	10.9%	9.5%	10.9%	

The Eastern Co. EML

MARKET CAPITALIZATION (Tho. \$)	At 20X5/06
Short-Term Interest-Bearing Debt	1,071
Long-Term Interest-Bearing Debt	2,500
Total Interest-Bearing Debt	3,571
Preferred Equity (Book)	0
Common Equity	101,295
Total Equity	101,295
Total Invested Capital	104,866
Shares Outstanding at July 29, 20X5	6,245
Price at September 1, 20X5	\$16.22

FINANCIAL RATIOS	Most Recent Year	3-Year Average
Debt-Free Working Capital Turnover	2.4	2.5
Asset Turnover	1.2	
Debt-Free Current Ratio	6.0	5.7
Debt-Free Quick Ratio	2.8	2.8
Debt to Equity (Book)	4.8%	7.9%
Debt to Capital (Book)	4.5%	7.3%
Times Interest Earned	40.3	39.0
Net Profit Margin	4.1%	5.3%
EBIT Margin	6.2%	8.2%
EBITDA Margin	8.8%	10.4%
Return on Assets	5.2%	
Return on Common Equity (Book)	7.5%	

	Most Recen	t 12 Months	Most Recen	t Fiscal Year	3-Year A	verage
MARKET MULTIPLES	Parameter	Multiple	Parameter	Multiple	Parameter	Multiple
Price/Earnings	5,934	17.1	7,732	13.1	7,836	12.9
Price/Book (Common Equity)	75,137	1.3	74,975	1.4	N/M	N/M
Invested Capital/Revenues	144,111	0.7	140,825	0.7	146,931	0.7
Invested Capital/EBIT	8,944	11.7	11,890	8.8	12,096	8.7
Invested Capital/EBITDA	12,666	8.3	15,377	6.8	15,347	6.8

P & F Industries, Inc. PFIN

	11.114				
	12 Months				'X2-'X4
FINANCIAL	Ended	Fisc	al Year End	ed	Growth
STATEMENT DATA (Tho. \$)	20X5/06	20X4/12	20X3/12	20X2/12	Rate
Net Revenues	83,221	75,035	76,066	59,871	11.9%
Depreciation & Amortization	3,016	2,363	1,912	2,307	1.2%
Interest Expense	756	540	490	526	1.3%
Earnings Before Taxes	5,297	3,777	4,604	3,296	7.0%
Net Income	3,139	2,080	3,225	5,441	-38.2%
Net Profit Margin	3.8%	2.8%	4.2%	9.1%	
Effective Tax Rate	40.7%	44.9%	30.0%	0.0%	
Cash, Equiv., Mkt. Sec. & Accts Rec.	13,369	10,558	9,152	7,370	19.7%
Total Current Assets	41,218	37,553	34,123	33,129	6.5%
Total Current Liabilities	24,049	23,626	7,346	12,428	37.9%
Net Working Capital	17,169	13,927	26,777	20,701	-18.0%
Short-Term Interest-Bearing Debt	15,414	14,984	820	3,253	114.6%
Debt-Free Net Working Capital	32,583	28,911	27,597	23,954	9.9%
Total Assets	75,567	73,076	53,241	55,157	15.1%
Average Total Assets	68,688	63,159	54,199		
Long-Term Interest-Bearing Debt	6,246	6,493	6,903	7,363	-6.1%
Common Equity	42,269	39,991	38,730	35,088	6.8%
Average Common Equity	41,451	39,361	36,909		
Interest-Bearing Debt to Invested Capital	33.9%	34.9%	16.6%	23.2%	
ADJUSTED EARNINGS (Tho. \$)	_				
Earnings Before Taxes (as reported)	5,297	3,777	4,604	3,296	7.0%
Loss on sale of fixed assets	(18)	(14)	(7)	(2)	
Recovery of (provision for) losses on A/R, net	(47)	90	42	(53)	
Total Adjustments	65	(76)	(35)	55	
Adjusted Earnings Before Taxes	5,362	3,701	4,569	3,351	5.1%
Estimated Income Tax Rate	38.0%	38.0%	30.0%	38.0%	
Adjusted Net Income	3,327	2,296	3,200	2,079	5.1%
Adjusted Net Profit Margin	4.0%	3.1%	4.2%	3.5%	
Adjusted Debt-Free Net Income	3,796	2,631	3,544	2,405	4.6%
Adj. Earnings Before Interest & Taxes	6,118	4,241	5,059	3,877	4.6%
Adjusted EBIT Margin	7.4%	5.7%	6.7%	6.5%	
Adj. Earnings Before Int., Taxes, Depr. & Amort.	9,134	6,604	6,971	6,184	3.3%
Adjusted EBITDA Margin	11.0%	8.8%	9.2%	10.3%	

P & F Industries, Inc. PFIN

MARKET	At
CAPITALIZATION (Tho. \$)	20X5/06
Short-Term Interest-Bearing Debt	15,414
Long-Term Interest-Bearing Debt	6,246
Total Interest-Bearing Debt	21,660
Preferred Equity (Book)	0
Common Equity	34,703
Total Equity	34,703
Total Invested Capital	56,363
Shares Outstanding at August 12, 20X5	3,615
Price at September 1, 20X5	\$9.60

	Most	3-Year
FINANCIAL RATIOS	Recent Year	Average
Debt-Free Working Capital Turnover	2.6	2.6
Asset Turnover	1.2	
Debt-Free Current Ratio	4.8	4.4
Debt-Free Quick Ratio	1.5	1.1
Debt to Equity (Book)	51.2%	34.6%
Debt to Capital (Book)	33.9%	24.9%
Times Interest Earned	8.1	8.5
Net Profit Margin	4.0%	3.6%
EBIT Margin	7.4%	6.3%
EBITDA Margin	11.0%	9.4%
Return on Assets	5.5%	
Return on Common Equity (Book)	8.0%	

	Most Recent	t 12 Months	Most Recen	t Fiscal Year	3-Year A	verage
MARKET MULTIPLES	Parameter	Multiple	Parameter	Multiple	Parameter	Multiple
Price/Earnings	3,327	10.4	2,296	15.1	2,525	13.7
Price/Book (Common Equity)	42,269	0.8	39,991	0.9	N/M	N/M
Invested Capital/Revenues	83,221	0.7	75,035	0.8	70,324	0.8
Invested Capital/EBIT	6,118	9.2	4,241	13.3	4,392	12.8
Invested Capital/EBITDA	9,134	6.2	6,604	8.5	6,586	8.6

Supreme Industries, Inc. STS

FINANCIAL	12 Months Ended	Fis	scal Year Ende	·d	'X2-'X4 Growth
STATEMENT DATA (Tho. \$)	20X5/06	20X4/12	20X3/12	20X2/12	Rate
Net Revenues	257,254	236,309	246,806	239,111	-0.6%
Depreciation & Amortization	3,626	3,746	3,695	3,314	6.3%
Interest Expense	644	526	505	783	-18.1%
Earnings Before Taxes	15,057	12,471	17,122	12,474	0.0%
Net Income	10,270	8,470	11,198	12,409	-17.4%
Net Profit Margin	4.0%	3.6%	4.5%	5.2%	
Effective Tax Rate	31.8%	32.1%	34.6%	0.5%	
Cash, Equiv., Mkt. Sec. & Accts Rec.	32,307	33,469	28,383	21,728	24.1%
Total Current Assets	67,924	63,101	65,923	61,007	1.7%
Total Current Liabilities	18,652	18,653	28,343	22,363	-8.7%
Net Working Capital	49,272	44,449	37,580	38,644	7.2%
Short-Term Interest-Bearing Debt	667	667	667	17	527.4%
Debt-Free Net Working Capital	49,938	45,116	38,247	38,661	8.0%
Total Assets	116,593	110,942	113,531	105,088	2.7%
Average Total Assets	114,467	112,236	109,309		
Long-Term Interest-Bearing Debt	8,000	8,333	9,000	14,089	-23.1%
Common Equity	87,049	81,032	74,080	67,163	9.8%
Average Common Equity	82,320	77,556	70,622		
Interest-Bearing Debt to Invested Capital	9.1%	10.0%	11.5%	17.4%	
ADJUSTED EARNINGS (Tho. \$)	_				
Earnings Before Taxes (as reported)	15,057	12,471	17,122	12,474	0.0%
Provision for doubtful accounts	(7)	(7)	(63)	(30)	
Gain (loss) on sale of PP&E, net	60	(153)	290	353	
Total Adjustments	(53)	160	(227)	(323)	
Adjusted Earnings Before Taxes	15,004	12,631	16,895	12,151	2.0%
Estimated Income Tax Rate	31.8%	32.1%	34.6%	38.0%	
Adjusted Net Income	10,234	8,579	11,050	7,539	6.7%
Adjusted Net Profit Margin	4.0%	3.6%	4.5%	3.2%	
Adjusted Debt-Free Net Income	10,674	8,936	11,380	8,024	5.5%
Adj. Earnings Before Interest & Taxes	15,648	13,157	17,399	12,934	0.9%
Adjusted EBIT Margin	6.1%	5.6%	7.0%	5.4%	
Adj. Earnings Before Int., Taxes, Depr. & Amort.	19,274	16,903	21,094	16,248	2.0%
Adjusted EBITDA Margin	7.5%	7.2%	8.5%	6.8%	

Supreme Industries, Inc. STS

MARKET CAPITALIZATION (Tho. \$)	At 20X5/06
Short-Term Interest-Bearing Debt	667
Long-Term Interest-Bearing Debt	8,000
Total Interest-Bearing Debt	8,667
Preferred Equity (Book)	0
Common Equity	125,046
Total Equity	125,046
Total Invested Capital	133,713
Shares Outstanding at July 23, 20X5	14,940
Price at September 1, 20X5	\$8.37

	Most	3-Year
FINANCIAL RATIOS	Recent Year	Average
Debt-Free Working Capital Turnover	5.2	6.0
Asset Turnover	2.2	
Debt-Free Current Ratio	3.8	2.9
Debt-Free Quick Ratio	1.8	1.3
Debt to Equity (Book)	10.0%	15.1%
Debt to Capital (Book)	9.1%	13.0%
Times Interest Earned	24.3	25.3
Net Profit Margin	4.0%	3.8%
EBIT Margin	6.1%	6.0%
EBITDA Margin	7.5%	7.5%
Return on Assets	9.3%	
Return on Common Equity (Book)	12.4%	

	Most Recent	12 Months	Most Recent	Fiscal Year	3-Year A	verage
MARKET MULTIPLES	Parameter	Multiple	Parameter	Multiple	Parameter	Multiple
Price/Earnings	10,234	12.2	8,579	14.6	9,056	13.8
Price/Book (Common Equity)	87,049	1.4	81,032	1.5	N/M	N/M
Invested Capital/Revenues	257,254	0.5	236,309	0.6	240,742	0.6
Invested Capital/EBIT	15,648	8.5	13,157	10.2	14,497	9.2
Invested Capital/EBITDA	19,274	6.9	16,903	7.9	18,082	7.4

The L.S. Starrett Co. SCX

	12 Months				'X3-'X5
FINANCIAL	Ended	Fis	scal Year Ende	d	Growth
STATEMENT DATA (Tho. \$)	20X5/06	20X5/06	20X4/6	20X3/6	Rate
Net Revenues	241,550	241,550	247,134	243,797	-0.5%
Depreciation & Amortization	8,717	8,717	9,358	9,675	-5.1%
Interest Expense	713	713	800	968	-14.2%
Earnings Before Taxes	9,942	9,942	12,057	796	253.4%
Net Income	5,244	5,244	6,712	(162)	N/M
Net Profit Margin	2.2%	2.2%	2.7%	-0.1%	
Effective Tax Rate	47.3%	47.3%	44.3%	120.4%	
Cash, Equiv., Mkt. Sec. & Accts Rec.	59,274	59,274	68,668	65,287	-4.7%
Total Current Assets	133,413	133,413	146,902	133,948	-0.2%
Total Current Liabilities	23,599	23,599	35,686	23,945	-0.7%
Net Working Capital	109,814	109,814	111,216	110,003	-0.1%
Short-Term Interest-Bearing Debt	1,552	1,552	10,548	1,557	-0.2%
Debt-Free Net Working Capital	111,366	111,366	121,764	111,560	-0.1%
Total Assets	212,272	212,272	231,443	230,794	-4.1%
Average Total Assets	221,858	221,858	231,119		
Long-Term Interest-Bearing Debt	18,552	18,552	10,804	24,252	-12.5%
Common Equity	114,430	114,430	136,314	126,742	-5.0%
Average Common Equity	125,372	125,372	131,528		
Interest-Bearing Debt to Invested Capital	14.9%	14.9%	13.5%	16.9%	
ADJUSTED EARNINGS (Tho. \$)	_				
Earnings Before Taxes (as reported)	9,942	9,942	12,057	796	253.4%
Unrealized transaction gains	6	6	4	23	
Loss on disposal of building	0	0	(89)	0	
Total Adjustments	(6)	(6)	85	(23)	
Adjusted Earnings Before Taxes	9,936	9,936	12,142	773	258.5%
Estimated Income Tax Rate	38.0%	38.0%	38.0%	38.0%	
Adjusted Net Income	6,164	6,164	7,533	480	258.5%
Adjusted Net Profit Margin	2.6%	2.6%	3.0%	0.2%	
Adjusted Debt-Free Net Income	6,607	6,607	8,029	1,080	147.3%
Adj. Earnings Before Interest & Taxes	10,649	10,649	12,942	1,741	147.3%
Adjusted EBIT Margin	4.4%	4.4%	5.2%	0.7%	
Adj. Earnings Before Int., Taxes, Depr. & Amort.	19,366	19,366	22,300	11,416	30.2%
Adjusted EBITDA Margin	8.0%	8.0%	9.0%	4.7%	

The L.S. Starrett Co. SCX

MARKET CAPITALIZATION (Tho. \$)	At 20X5/06
Short-Term Interest-Bearing Debt	1,552
Long-Term Interest-Bearing Debt	18,552
Total Interest-Bearing Debt	20,104
Preferred Equity (Book) Common Equity	0 95,705
Total Equity	95,705
Total Invested Capital	115,809
Shares Outstanding at August 24, 20X5	6,231
Price at September 1, 20X5	\$15.36

FINANCIAL RATIOS	Most Recent Year	3-Year Average
Debt-Free Working Capital Turnover	2.2	2.1
Asset Turnover	1.1	
Debt-Free Current Ratio	6.1	6.0
Debt-Free Quick Ratio	2.7	2.8
Debt to Equity (Book)	17.6%	17.9%
Debt to Capital (Book)	14.9%	15.1%
Times Interest Earned	14.9	11.0
Net Profit Margin	2.6%	1.9%
EBIT Margin	4.4%	3.5%
EBITDA Margin	8.0%	7.2%
Return on Assets	3.0%	
Return on Common Equity (Book)	4.9%	

	Most Recen	t 12 Months	Most Recen	t Fiscal Year	3-Year A	verage
MARKET MULTIPLES	Parameter	Multiple	Parameter	Multiple	Parameter	Multiple
Price/Earnings	6,164	15.5	6,164	15.5	4,726	20.3
Price/Book (Common Equity)	114,430	0.8	114,430	0.8	N/M	N/M
Invested Capital/Revenues	241,550	0.5	241,550	0.5	244,160	0.5
Invested Capital/EBIT	10,649	10.9	10,649	10.9	8,444	13.7
Invested Capital/EBITDA	19,366	6.0	19,366	6.0	17,694	6.5

Twin Disc, Inc. TWIN

	1 1/11/1				
	12 Months				'X3-'X5
FINANCIAL	Ended	Fi	iscal Year End	ed	Growth
STATEMENT DATA (Tho. \$)	20X5/06	20X5/06	20X4/06	20X3/06	Rate
Net Revenues	265,790	265,790	263,909	285,282	-3.5%
Depreciation & Amortization	10,161	10,161	10,667	10,838	-3.2%
Interest Expense	606	606	936	1,435	-35.0%
Earnings Before Taxes	15,900	15,900	8,096	9,237	31.2%
Net Income	11,385	11,385	3,870	4,251	63.7%
Net Profit Margin	4.3%	4.3%	1.5%	1.5%	
Effective Tax Rate	28.4%	28.4%	52.2%	54.0%	
Cash, Equiv., Mkt. Sec. & Accts Rec.	66,819	66,819	64,976	67,055	-0.2%
Total Current Assets	169,830	169,830	180,097	188,472	-5.1%
Total Current Liabilities	57,054	57,054	56,980	63,503	-5.2%
Net Working Capital	112,776	112,776	123,117	124,969	-5.0%
Short-Term Interest-Bearing Debt	3,571	3,571	3,604	3,681	-1.5%
Debt-Free Net Working Capital	116,347	116,347	126,721	128,650	-4.9%
Total Assets	249,862	249,862	266,985	285,458	-6.4%
Average Total Assets	258,424	258,424	276,222		
Long-Term Interest-Bearing Debt	10,231	10,231	14,800	23,472	-34.0%
Common Equity	139,528	139,528	151,584	142,504	-1.0%
Average Common Equity	145,556	145,556	147,044		
Interest-Bearing Debt to Invested Capital	9.0%	9.0%	10.8%	16.0%	
ADJUSTED EARNINGS (Tho. \$)	_				
Earnings Before Taxes (as reported)	15,900	15,900	8,096	9,237	31.2%
Restructuring of operations	(3,282)	(3,282)	(961)	(708)	
Impairment charge	0	0	0	(1,405)	
Loss on sale of plant assets	(215)	(215)	(26)	(287)	
Total Adjustments	3,497	3,497	987	2,400	
Adjusted Earnings Before Taxes	19,397	19,397	9,083	11,637	29.1%
Estimated Income Tax Rate	28.4%	28.4%	38.0%	38.0%	
Adjusted Net Income	13,889	13,889	5,635	7,220	38.7%
Adjusted Net Profit Margin	5.2%	5.2%	2.1%	2.5%	
Adjusted Debt-Free Net Income	14,323	14,323	6,216	8,110	32.9%
Adj. Earnings Before Interest & Taxes	20,003	20,003	10,019	13,072	23.7%
Adjusted EBIT Margin	7.5%	7.5%	3.8%	4.6%	
Adj. Earnings Before Int., Taxes, Depr. & Amort.	30,164	30,164	20,686	23,910	12.3%
Adjusted EBITDA Margin	11.3%	11.3%	7.8%	8.4%	

Twin Disc, Inc. TWIN

	1 W 11 4
MARKET	At
CAPITALIZATION (Tho. \$)	20X5/06
Short-Term Interest-Bearing Debt	3,571
Long-Term Interest-Bearing Debt	10,231
Total Interest-Bearing Debt	13,802
Preferred Equity (Book)	0
Common Equity	153,092
Total Equity	153,092
Total Invested Capital	166,894
Shares Outstanding at August 19, 20X5	11,323
Price at September 1, 20X5	\$13.52

FINANCIAL RATIOS	Most Recent Year	3-Year Average
Debt-Free Working Capital Turnover	2.3	2.2
Asset Turnover	1.0	
Debt-Free Current Ratio	3.2	3.2
Debt-Free Quick Ratio	1.2	1.2
Debt to Equity (Book)	9.9%	13.7%
Debt to Capital (Book)	9.0%	11.9%
Times Interest Earned	33.0	17.6
Net Profit Margin	5.2%	3.3%
EBIT Margin	7.5%	5.3%
EBITDA Margin	11.3%	9.2%
Return on Assets	5.5%	
Return on Common Equity (Book)	9.5%	

	Most Recent 12 Months		Most Recent Fiscal Year		3-Year Average	
MARKET MULTIPLES	Parameter	Multiple	Parameter	Multiple	Parameter	Multiple
Price/Earnings	13,889	11.0	13,889	11.0	8,915	17.2
Price/Book (Common Equity)	139,528	1.1	139,528	1.1	N/M	N/M
Invested Capital/Revenues	265,790	0.6	265,790	0.6	271,660	0.6
Invested Capital/EBIT	20,003	8.3	20,003	8.3	14,365	11.6
Invested Capital/EBITDA	30,164	5.5	30,164	5.5	24,920	6.7

Visteon Corp. VC

	12 Months				'X2-'X4
FINANCIAL	Ended	Fis		Growth	
STATEMENT DATA (Tho. \$)	20X5/06	20X4/12	20X3/12	20X2/12	Rate
Net Revenues	406,700	375,450	318,550	285,750	14.6%
Depreciation & Amortization	13,350	13,500	13,100	12,950	2.1%
Interest Expense	1,700	1,850	2,300	2,400	-12.2%
Earnings Before Taxes	20,400	13,050	45,100	16,800	-11.9%
Net Income	13,100	6,850	39,250	11,450	-22.7%
Net Profit Margin	3.2%	1.8%	12.3%	4.0%	
Effective Tax Rate	35.8%	47.5%	13.0%	31.8%	
Cash, Equiv., Mkt. Sec. & Accts Rec.	171,000	109,100	146,450	100,350	4.3%
Total Current Assets	196,350	156,700	187,650	133,150	8.5%
Total Current Liabilities	50,050	91,600	90,100	77,600	8.6%
Net Working Capital	146,300	65,100	97,550	55,550	8.3%
Short-Term Interest-Bearing Debt	1,450	7,100	5,300	4,800	21.6%
Debt-Free Net Working Capital	147,750	72,200	102,850	60,350	9.4%
Total Assets	246,900	266,150	301,350	257,800	1.6%
Average Total Assets	264,675	283,750	279,575		
Long-Term Interest-Bearing Debt	17,450	41,950	31,200	23,650	33.2%
Common Equity	134,400	43,250	96,000	69,250	-21.0%
Average Common Equity	99,975	69,625	82,625		
Interest-Bearing Debt to Invested Capital	12.3%	53.1%	27.5%	29.1%	
ADJUSTED EARNINGS (Tho. \$)	_				
Earnings Before Taxes (as reported)	20,400	13,050	45,100	16,800	-11.9%
Restructuring expense	(2,850)	(2,800)	(1,800)	(2,250)	
Loss on debt extinguishment	(250)	(1,150)	(100)	(300)	
Asset impairment and losses on divestitures	(8,450)	(16,300)	0	(1,200)	
Pension settlement gain	1,150	1,150	0	0	
Gain on asset sales and business divestitures	0	0	23,500	950	
Total Adjustments	10,400	19,100	(21,600)	2,800	
Adjusted Earnings Before Taxes	30,800	32,150	23,500	19,600	28.1%
Estimated Income Tax Rate	35.8%	38.0%	38.0%	31.8%	
Adjusted Net Income	19,778	19,946	14,579	13,358	22.2%
Adjusted Net Profit Margin	4.9%	5.3%	4.6%	4.7%	
Adjusted Debt-Free Net Income	20,870	21,094	16,006	14,994	18.6%
Adj. Earnings Before Interest & Taxes	32,500	34,000	25,800	22,000	24.3%
Adjusted EBIT Margin	8.0%	9.1%	8.1%	7.7%	
Adj. Earnings Before Int., Taxes, Depr. & Amort.	45,850	47,500	38,900	34,950	16.6%
Adjusted EBITDA Margin	11.3%	12.7%	12.2%	12.2%	

Visteon Corp. VC

	, .
MARKET CAPITALIZATION (Tho. \$)	At 20X5/06
Short-Term Interest-Bearing Debt	1,450
Long-Term Interest-Bearing Debt	17,450
Total Interest-Bearing Debt	18,900
Preferred Equity (Book)	0
Common Equity	200,164
Total Equity	200,164
Total Invested Capital	219,064
Shares Outstanding at July 31, 20X5	2,021
Price at September 1, 20X5	\$99.02

	Most	3-Year	
FINANCIAL RATIOS	Recent Year	Average	
Debt-Free Working Capital Turnover	2.8	4.3	
Asset Turnover	1.5		
Debt-Free Current Ratio	4.0	2.0	
Debt-Free Quick Ratio	3.5	1.5	
Debt to Equity (Book)	14.1%	64.2%	
Debt to Capital (Book)	12.3%	36.6%	
Times Interest Earned	19.1	12.9	
Net Profit Margin	4.9%	4.9%	
EBIT Margin	8.0%	8.3%	
EBITDA Margin	11.3%	12.4%	
Return on Assets	7.9%		
Return on Common Equity (Book)	19.8%		

	Most Recen	t 12 Months	Most Recen	t Fiscal Year	3-Year A	verage
MARKET MULTIPLES	Parameter	Multiple	Parameter	Multiple	Parameter	Multiple
Price/Earnings	19,778	10.1	19,946	10.0	15,961	12.5
Price/Book (Common Equity)	134,400	1.5	43,250	4.6	N/M	N/M
Invested Capital/Revenues	406,700	0.5	375,450	0.6	326,583	0.7
Invested Capital/EBIT	32,500	6.7	34,000	6.4	27,267	8.0
Invested Capital/EBITDA	45,850	4.8	47,500	4.6	40,450	5.4

EXERCISE 70 Which of these are commonly used guideline public company valuation multiples?

- a. Price/earnings
- b. Invested capital/revenues
- c. Price/gross profits
- d. Invested capital/book value of equity
- e. Invested capital/EBITDA
- f. Invested capital/EBIT
- g. Price/assets
- h. Invested capital/debt-free net income
- i. Invested capital/debt-free cash flow

EXERCISE 71 When using the guideline public company method, at what point in time are the prices of the public companies' stock valued?

- a. 30-day average
- b. As of valuation date
- c. Six-month average
- d. Three-year average

EXERCISE 72 What type of value is the result of the application of the guideline public company method?

- a. Control
- b. Minority
- c. Neutral

1.11.5.1.2 Guideline Public Company Method Conclusion of Value on a Marketable, Control Interest Basis National Fastener is smaller in size and less leveraged than the public guideline set, but generally more profitable than the guidelines. The three-year revenue growth rate of National Fastener has been higher than the guideline companies. Considering these and other factors outlined above, we applied the median guideline company market multiples for the periods analyzed to the parameters of the Company, as shown in Table 1.17.

 TABLE 1.17
 Total Selected Values—Guideline Public Company Method

	Calculated Value
Invested Capital	\$27,000,000
Add: Excess Working Capital	\$ 1,781,159
Less: Interest-Bearing Debt	\$ —
Value on a Marketable, Control Interest Basis	\$28,781,159
Indicated Value of 100% of the Equity (Rounded)	\$28,800,000

The following multiples were applied to the subject company parameters: equity to net earnings and of invested capital to revenue, EBIT, and EBITDA. In concluding to the value of the Company, we relied primarily on the indications of value derived from the EBITDA multiples for the most recent trailing 12 months and three-year average. We added the estimated excess debt-free working capital to the indicated operating value of the Company. See Exhibit 1.22 for a summary of the guideline public company method.

EXHIBIT 1.22 Guideline Public Company Method: Summary

National Fastener & Machine Co. Guideline Public Company Method Summary

				Less: Interest	-
	Earnings Parameter	Selected Multiple (1)	Invested Capital	Bearing Debt	Equity Value
Most Recent 12 Months					
Equity Multiples Price/Earnings	\$2,243,297	11.62			\$26,068,151
Business Enterprise Multiples Invested Capital/Net Revenues Invested Capital/Earnings Before	35,853,691	0.58	20,912,673	0	20,912,673
Int. & Taxes	3,069,650	8.88	27,254,651	0	27,254,651
Invested Capital/EBITDA	4,344,027	6.08	26,391,382	0	26,391,382
Most Recent Fiscal Year					
Equity Multiples Price/Earnings	\$1,938,288	13.84			\$26,822,249
Business Enterprise Multiples Invested Capital/Net Revenues Invested Capital/Earnings Before Int. & Taxes	37,135,207 2,886,633	0.61 9.49	22,492,589 27,398,034	0	22,492,589 27,398,034
Invested Capital/EBITDA	4,149,358	6.40	26,555,648	0	26,555,648
Three-Year Averages Equity Multiples Price/Earnings	\$2,009,949	13.78	, ,		\$27,688,333
Business Enterprise Multiples Invested Capital/Net Revenues Invested Capital/Earnings Before	36,158,936	0.64	23,234,376	0	23,234,376
Int. & Taxes	2,966,558	10.42	30,914,545	0	30,914,545
Invested Capital/EBITDA	4,083,138	6.77	27,622,913	0	27,622,913
	Selected	Value of 100	% of Equity		\$27,000,000
	Plus: Excess D	ebt-Free Work	ing Capital		1,781,159
Indicated	l Value of 100°	% of Equity, R	Rounded (2)		<u>\$28,800,000</u>

Notes

⁽¹⁾ Selected multiples equal median multiples less a 0.0% fundamental discount.

⁽²⁾ See Exhibit 1.12 for calculation of excess DFNWC.

Based on the application of the guideline public company method, the indicated value of 100 percent of the equity of National Fastener as of September 1, 20X5, was \$28.8 million (operating value of \$27.0 million plus \$1.8 million in excess working capital).

EXERCISE 73 In selecting multiples from guideline public companies for application to a subject company such as National Fastener, what options do analysts typically have?

- a. Mean average of the multiples
- b. Median average of the multiples
- c. Individual guideline company multiples
- d. Average multiples with a fundamental discount
- e. All of the above

EXERCISE 74 Which of these time periods can be used to derive valuation multiples from publicly traded companies?

- a. Most recent four quarters
- b. Most recent fiscal year-end
- c. Three-year average
- d. Five-year average
- e. One-year projected
- f. Three-year future average
- **1.11.5.2 Guideline Company Transactions Method** It is possible to develop an indication of value of a company based upon the price multiples indicated by merger and acquisition transactions of companies in the same or a similar industry in recent years. In order to use merger and acquisition (M&A) information in a valuation engagement, the following two conditions must be met:
 - 1. The target company must be similar to the company being valued in at least some respects.
 - 2. One must be able to obtain details of the merger or acquisition transaction. If at least one of the parties in the M&A transaction (either the purchaser or the seller) is a public company, relevant information is often available.

EXERCISE 75 Which of these are general transaction databases considered by analysts in valuing companies?

- a. Pratt's Stats
- b. RMA

- c. Institute of Business Appraisersd. DoneDealse. Bizcomps
- f. Mergerstat Review

EXERCISE 76 to use transaction	What is one of the most significant problems when attempting n data?

- 1.11.5.2.1 Pratt's Stats Database The Pratt's Stats database provides a list of transactions of companies in various industry sectors. We searched for transactions in SIC codes 3451 (Screw Machine Products), 3452 (Bolts, Nuts, Screws, Rivets, and Washers), and 3714 (Motor Vehicle Parts and Accessories), as well as NAICS codes 332722 (Bolt, Nut, Screw, Rivet, and Washer Manufacturing) and 336310 (Motor Vehicle Gasoline Engine and Engine Parts Manufacturing), that occurred between September 1, 20X0, and September 1, 20X5. We excluded transactions in which the target company's operations were not similar to National Fastener and/or in which the target company's revenues were not between \$3.0 million and \$300.0 million. Seven transactions in Pratt's Stats involved targets within our search criteria, and these transactions are included in our analysis. Using this database, we calculated multiples based on market value of total invested capital (TIC) to gross revenues, EBITDA, and EBIT.
- **1.11.5.2.2 Public Stats Database** The Public Stats database provides a list of transactions of companies in various industry sectors. Using the same criteria as used to search Pratt's Stats, a search of the Public Stats database yielded no results.
- 1.11.5.2.3 Database Conclusion of Value on a Marketable, Control Interest Basis We considered multiples of invested capital (TIC) to revenue, TIC to earnings before interest and taxes (EBIT), and TIC to earnings before interest, taxes, depreciation, and amortization (EBITDA). The implied multiples of revenue, EBITDA, and EBIT for the Company based on the conclusion of value under the guideline public company method and the discounted cash flow method were within the range of the transaction multiples. We did not rely on the guideline company transactions method, but did use it as a check for reasonableness of the conclusions of the other valuation methods.

See Exhibit 1.23 for the analysis of the multiples of the transactions in Pratt's Stats and comparison to the implied subject company multiples from the conclusions of the guideline public company method and discounted cash flow method.

The selected multiples were applied to the revenue, EBIT, and EBITDA parameters of the Company for the most recent 12 months, most recent fiscal year, and three-year average, 20X2 to 20X4. Based on the analysis, the concluded selected value of 100 percent of the equity of the Company was \$29,700,000 before adjustment for excess debt-free working capital. The concluded value of the equity of the Company under the transaction method was \$31,500,000, as shown on Exhibit 1.24.

EXERCISE 77	Is a 100 percent controlling interest marketable or nonmarketable?

1.12 LACK OF MARKETABILITY DISCOUNT

EXERCISE 78 Discounts for lack of marketability/liquidity can be applied to 100 percent control interests in a company such as National Fastener.

- a. True
- b. False

EXERCISE 79 Which discounts for lack of marketability studies and/or data are available in determining discounts?

- a. Mergerstat Review
- b. Restricted stock studies
- c. IPO studies
- d. Court cases
- e. Flotation costs
- f. CAPM
- g. Ibbotson Associates
- h. Quantitative Marketability Discount Model (QMDM)
- i. Option pricing models

EXHIBIT 1.23 Guideline Company Transactions Method: Detail

National Fastener & Machine Co. Market Approach: Guideline Comp Valuation Date: September 1, 20X	tener & N oach: Gui te: Septen	National Fastener & Machine Co. Market Approach: Guideline Company Valuation Date: September 1, 20X5	National Fastener & Machine Co. Market Approach: Guideline Company Transactions Method (1 Valuation Date: September 1, 20X5	a) F) F	Ì
Date	SIC Code	SIC Code Acquirer	Target	Description	TIC	Revenues	EBITDA	Depreciation	EBIT	Expense	EBT		4	EBIT
2/4/20X5	3714	N/A	N/A	ManufacturinglMfg—Boats	\$6,390,000	6,453,863	801,175	12,212	788,963	12,250	776,713	66.0	7.98	8.10
8/29/20X4	3714	NN, Inc.	Autocam Corporation, Inc.	Manufactures precision-machine components for OEMs and Tier 1 automotive suppliers worldwide	\$320,769,000	\$320,769,000 233,484,000 35,775,000 16,663,000 19,112,000 2,741,000 16,371,000 1.37	35,775,000	16,663,000	19,112,000	2,741,000	16,371,000	1.37	8.97 16.78	16.78
S/1/20X4	3714	CLARCOR Inc.	Diesel Fuel Filtration Business of Stanadyne Corporation	Design, manufacture, and supply of original equipment diesel fuel filtration products	\$327,569,000	\$327,569,000 107,798,000 39,862,000	39,862,000	3,309,000	3,309,000 36,553,000 7,522,000 29,031,000 3.04	7,522,000	29,031,000	3.04	8.22	8.96
12/19/20X3	3714	Universal Truckload Services, Inc.	Westport Axle Corporation	Assembles and sells heavy-duty truck axles and other forged machine components	\$126,442,000	58,387,000	8,179,000	2,069,000	6,110,000	999,000	5,442,000 2.17	2.17	15.46 20.69	20.69
2/19/20X3	3429	Hillman Companies, Inc.	H. Paulin & Co., Limited	Manufactures and distributes bolts, nuts, screws, industrial fasteners, fluid system components, metal stampings, automotive parts, and screw machine components	\$103,416,000 145,985,000	145,985,000	6,060,000	976,000	5,084,000	252,000	4,832,000 0.71	0.71	17.07 20.34	20.34
12/27/20X2	3714	N/A	N/A	Manufacturer of custom accessories for ATVs, UTVs, side x sides, golf carts, lowspeed vehicles (LSV), and recreational vehicles	\$12,500,000	8,338,322	1,683,277	32,989	1,650,288		1,650,288	1.50	7.43	7.57
3/23/20X2	3714	Park Ohio Industries, Inc.	Fluid Routing Solutions, Inc.	A leading manufacturer of industrial hose products and fuel filler and hydraulic fluid assemblies	\$97,500,000	\$97,500,000 179,383,233 12,608,397	12,608,397	4,160,938	8,447,459	831,038	7,616,421	0.54	7.73 11.54	11.54
									Mean			1.47		13.43
									Median			1.37	8.22	11.54
									Min			0.54	7.43	7.57
									Max			3.04	17.07	20.69
									Coefficient of Variation	f Variation		09.0	0.39	0.43
							Implied Subje	Implied Subject Company Multiples	fultiples			LTM	LTM	LTM
							Guideline Pul	Guideline Public Company Method—Conclusion	Method—Cor	nclusion		0.80	6.63	9.38
							Discounted C	Discounted Cash Flow Method—Conclusion	nod—Conclus	sion		0.88	7.23	10.23

(1) Data from Pratt's Stats.

EXHIBIT 1.24 Guideline Company Transactions Method: Summary

National Fastener & Machine Co. Guideline Transactions Method Summary				,	
	Earnings Parameter	Selected Multiple (1)	Invested Capital	Less: Interest- Bearing Debt	Equity Value
Most Recent 12 Months					
Business Enterprise Multiples Invested Capital/Net Revenues Invested Capital/Earnings Before Interest & Taxes Invested Capital/EBITDA	35,853,691 3,069,650 4,344,027	1.2 9.8 7.0	41,868,564 30,115,240 30,342,766	0 0 0	41,868,564 30,115,240 30,342,766
Most Recent Fiscal Year					
Business Enterprise Multiples Invested Capital/Net Revenues Invested Capital/Earnings Before Interest & Taxes Invested Capital/EBITDA	37,135,207 2,886,633 4,149,358	1.2 9.8 7.0	43,365,069 28,319,724 28,983,013	0 0 0	43,365,069 28,319,724 28,983,013
Three-Year Average, 20X2 to 20X4					
Business Enterprise Multiples Invested Capital/Net Revenues Invested Capital/Earnings Before Interest & Taxes Invested Capital/EBITDA	36,158,936 2,966,558 4,083,138	1.2 9.8 7.0	42,225,017 29,103,844 28,520,469	0 0 0	42,225,017 29,103,844 28,520,469
		Selected Value	Selected Value of 100% of Equity		\$29,700,000
	Plu	Plus: Excess Debt-Free Working Capital (2)	Working Capital (2)		1,781,159
	Indic	ated Value of 100%	Indicated Value of 100% of Equity, Rounded		\$31,500,000

Notes:

⁽¹⁾ Selected multiples equal the median multiples less a 15% fundamental discount. (2) See notes to Exhibit 1.12 and text for additional information.

EXERCISE 80 Although a 100 percent control interest is valued in National Fastener, numerous other levels of ownership interests can exist in a closely held company. Provide some examples of other levels of ownership.

A marketability/liquidity discount is intended, among other things, to account for the issues a controlling owner must face as he begins to liquidate his control interest in the company. A number of studies and cases over the years have attempted to identify this discount.

EXERCISE 81 A discount for lack of marketability/liquidity should be applied to all of the valuation methods used in the valuation of National Fastener.

- a. True
- b. False

1.13 RECONCILIATION OF VALUES

The selected guideline public companies are fairly comparable to National Fastener and provide valuable market data for purposes of valuation analysis. The discounted cash flow method represents an analysis of management's expectations for the growth and profitability of the business in the future. In concluding to a value for National Fastener, we relied on the value indications under both of these methods.

The guideline company transactions provide market data for purposes of valuation analysis of National Fastener. However, as is often the case with this method, we lack full details on the transactions, and we therefore rely on the transaction method as a corroborating method to check the reasonableness of the multiples implied from the guideline public company method and discounted cash flow method.

As shown on Exhibit 1.25, the indicated value of 100 percent of the equity of National Fastener based on the guideline public company method of the market approach is \$28,800,000 and based on the income approach is \$31,400,000. The concluded fair market value of the Company as of September 1, 20X5, was \$30,100,000.

FXHIBII	1.25	Summary of Findings

National Fastener & Machine Co. **Summary of Findings** Valuation Date: September 1, 20X5 Value Indication Asset Approach Net Assets \$26,185,016 Income Approach Capitalized Cash Flows to Invested Capital \$20,000,000 Discounted Cash Flows to Invested Capital \$31,400,000 Market Approach Guideline Public Company Method \$28,800,000 Guideline Company Transactions Method \$31,500,000

EXERCISE 82 Which method can be used to correlate and reconcile value?

\$30,100,000

a. Straight average of the indications of value

Selected Value of 100% of the Equity

- b. Numerical weights assigned to each of the value indications
- c. Qualitative judgment in selection of value
- d. All of the above

1.14 ADDENDUM: DISCOUNT CASE STUDY EXERCISES

1.14.1 Exercise A

Assume that we are determining the fair market value of a minority nonmarketable interest in a company for gift tax purposes. The minority marketable value derived by various methods is \$100 per share. We are in a state where you need over 50 percent for full control. What is the relative discount for lack of marketability (DLOM) in these situations?

a.	Value of a 10 percent interest with one 90 percent owner

b. V	Value of a 10 percent interest with nine other 10 percent owners
c. V	Value of a 50 percent interest with one other 50 percent owner
d. V	Value of a 33.33 percent interest with two other 33.33 percent owners
e. V	Value of a 2 percent interest with two 49 percent owners
Agair poses alone liquid	2 Exercise B In, assume we are determining the fair market value of a company for gift tax pure. In this case study, we are valuing a 100 percent controlling interest on a stand basis in a closely held company. What is the discount for lack of marketability lity in these situations where the pre-discount value is determined by using: 2/E ratios from control transactions information (i.e., Pratt's Stats)
b. P	P/E ratios from guideline public companies
	Discounted cash flow (DCF) with a discount rate determined using Duff & Phelps information

d.	Capitalized cash flow method
_	
e.	Asset approach

Valuation Case Study Exercises: Solutions and Explanations

EXERCISE 1 Which of the following is the *as of* date for valuation?

- a. Any time within one year
- b. As of a single point in time
- c. As of a single point in time or six months later
- d. Date that the report is signed

ANSWER: b. As of a single point in time

The valuation date is always as of a single point in time, typically a day. Valuation of a business is a dynamic, not static, exercise. Values can change constantly, such that a value today may be very different from the value a year from now or even just a few months from now. In the estate tax area, valuations are as of the date of death or six months later. However, this is only for estate tax. The date that the analyst signs the report usually does not coincide with the as of date. The signature date is most often after the valuation date.

EXERCISE 2 This is a detailed report per SSVS. What other types of reports are allowed under SSVS?

ANSWER: a. Summary report

- b. Calculation report
- c. Oral report

EXERCISE 3 The purpose of the valuation of National Fastener is to assist management in internal operational and tax planning. What other purposes are there?

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ANSWER: Valuations are used for a variety of purposes, including estate tax, income tax, gift tax, ESOPs (employee stock ownership plans), marital dissolution, buying companies, selling companies, shareholder oppression cases, dissenting rights cases, financial reporting, reorganization and bankruptcy, minority stockholder disputes, various types of litigation, and internal planning.

EXERCISE 4 If the analyst belongs to more than one valuation organization with standards, that analyst must comply with the standards of each organization to which he or she belongs.

- a. True
- b. False

ANSWER: a. True

A valuation analyst is responsible only for adherence to the standards of the associations and organizations to which he belongs. For example, a CPA has to comply only with the AICPA standards. That CPA may elect to follow other standards, say, USPAP, but is not required to do so.

EXERCISE 5 Which of these are standards of value?

- a. Fair market value, fair value financial reporting, investment value
- b. Fair value investment reporting, fair value state actions, intrinsic value
- c. Investment value, intrinsic value, equal value
- d. Fair market value, equal value, investment value

ANSWER: a. Fair market value, fair value financial reporting, investment value

There are five standards of value: fair market value, investment value, intrinsic value, fair value financial reporting, and fair value state actions.

EXERCISE 6 Valuation conclusions can be presented as:

- a. A range of values
- b. A single value
- c. An estimate of value
- d. All of the above

ANSWER: d. All of the above

Value conclusions can be presented in a variety of formats. It is most often either a single value or a range of values. Values are always estimates, since judgment is applied.

EXERCISE 7 This valuation is being done on a marketable, control interest basis. It is also on a control standalone basis. Name the six levels of value that are considered in a valuation.

ANSWER: a. Control strategic

- b. Minority/Control standalone liquid
- c. Minority liquid
- d. Minority nonmarketable
- e. Control liquid
- f. Control standalone

Control strategic can refer to level of value in a public or a private company. An example of minority/control standalone liquid is the value resulting from the application of the guideline public company method. Some analysts consider the result a minority value. In more recent years, more analysts consider the level of value from the guideline public company method as both minority and control. An example of control liquid is the value derived from the application of the income approach (with control cash flows) where the discount or cap rate is based on returns from the public marketplace. Control standalone is the value of a private company after application of the income approach with a discount to reflect the lesser liquidity of a control interest in a private company versus public stock. An income approach using a rate of return derived from public company data and adjusted for a size risk premium likely reflects a liquid value, but not as liquid as a large company stock. Many small public companies are highly illiquid with large bid/ask spreads (that may contribute to the small size premia).

Publicly traded guideline company data used to calculate a subject value would indicate a marketable liquid value, but the degree of liquidity depends upon the liquidity of the guideline companies used. The guideline company transactions method presumably provides a control, illiquid but marketable conclusion of value. The asset approach would likely indicate a control marketable value, depending on the type of assets and the methods used to value the assets of the subject company. Minority nonmarketable is the value after the consideration of and/or application of all discounts for lack of control and lack of marketability.

Some of these "levels" of value may be higher or lower than the others depending on the circumstances. The DLOM is considered primarily with the bottom three levels for a private company.

This valuation is prepared on a marketable, controlling interest basis.

The valuation industry lacks consensus on the application of discounts for lack of marketability/liquidity in the valuation of controlling interests. Opponents of marketability discounts generally contend that the lack of marketability is reflected in the pricing of the controlling interest. Proponents believe some discount for lack of marketability/liquidity should be made over and above the applied discount rate or price multiple based on public markets. They argue that when comparisons are made to liquid public stocks in the application of a valuation method, liquidity may be embedded in the private company value. In this case, a discount may be appropriate.

EXERCISE 8 The subject of this exercise is a C corporation, but analysts will frequently be required to value noncontrolling interests in S corporations. Valuation of S corporations is one of the most controversial issues in business valuations today. The main issue is how to tax affect S corporation income and, if appropriate, compute an S-corp adjustment. What five models are often considered or used in valuing S corporations?

ANSWER: 1. Treharne

- 2. Van Vleet
- 3. Mercer
- 4. Grabowski
- 5. Fannon

EXERCISE 9 We are valuing a 100 percent controlling interest in National Fastener. The percentage of ownership of individual shareholders is not an issue here. However, assume we are valuing the 55 percent of Tony Atkins as opposed to the 100 percent in National Fastener. The value of a 55 percent interest in National Fastener would be calculated as 55 percent of the 100 percent control value in National Fastener.

- a. True
- b. False

ANSWER: b. False

A 55 percent interest in the Company may not be equal to 55 percent of the 100 percent controlling interest value. The sum of the parts may not equal the whole. Although Tony still controls the corporation with his 55 percent interest, a nuisance value may possibly be attributable to the other three 15 percent interests. Tony does not have complete control and could be exposed at some time in the future to a dissenting rights action or shareholder oppression action. As such, a 55 percent interest would probably be worth somewhat less than a proportional amount of the 100 percent controlling interest value in National Fastener.

EXERCISE 10 Revenue Ruling 59-60 is only applicable to estate, gift, and income tax valuations.

- a. True
- b. False

ANSWER: b. False

Technically, Revenue Ruling 59-60 should be followed when valuing interests for estate, gift, and income taxes. However, Revenue Ruling 59-60 is often relied on and quoted for other valuations as well. It has withstood the test of time.

EXERCISE 11 These are the only eight tenets of value in Revenue Ruling 59-60 that need to be considered.

- a. True
- b. False

ANSWER: b. False

Although there are eight main tenets of value contained in Revenue Ruling 59-60, there are a multitude of other important factors contained in the Revenue Ruling that must also be considered. Other factors include key person discounts, operating versus holding companies, acceptable approaches and methods, and types of historical information.

EXERCISE 12 What types of industries would most likely be affected by anticipated changes in interest rates?

ANSWER: a. Residential housing

- b. Banking
- c. Auto
- d. Manufacturing

Although all industries are ultimately affected by changes in interest rates, these industries would be affected more because changes in interest rates change both supply and demand as well as profit margins.

EXERCISE 13 What two economic indicators are probably the most important in valuation?

- a. Unemployment levels and gross domestic product (GDP)
- b. Dow Jones Industrial Average and Producer Price Index
- c. GDP and inflation
- d. Inflation and unemployment levels

ANSWER: c. GDP and inflation

Although all economic indicators can be important, typically the two most important ones are historical and anticipated changes in GDP, which measures the real growth of the U.S. economy, and inflation, typically measured through changes in the Consumer Price Index. These two factors affect all industries and can be important in choosing growth rates in both the discounted cash flow and capitalized cash flow methods of the income approach.

EXERCISE 14 In valuing a small, geographically concentrated business, which of these types of economic data should be considered?

- a. International, national, regional, local
- b. National, regional, local
- c. Regional, local
- d. Local only

ANSWER: b. National, regional, local

Although a small, geographically concentrated business would most likely be affected by local and regional data, the national outlook should also be analyzed in preparing the business valuation. It is true that there are often differences in both the local and regional economy versus the national economy. However, in many industries, what is happening at the national level will eventually trickle down to the regional and local levels. There are exceptions to this rule and each valuation can be different. While the international economic situation could impact the national economic data, it is unlikely that the international economic situation would directly affect a small local business.

EXERCISE 15 Which industry outlook factors are generally the most important in supporting valuation assumptions?

- a. Growth rates, profit margins, and risk
- b. Regulatory and legal issues
- c. Unemployment figures
- d. Minority discounts and/or control premiums

ANSWER: a. Growth rates, profit margins, and risk

When applicable and available, the industry data should tie to the assumptions used in the valuation for growth rates, profit margins, and risk factors. Regulatory and legal issues and unemployment figures are also important but only to the extent that they affect growth, profits, and risks. Discounts and premiums are separate issues.

EXERCISE 16 What is the most important use of historical financial data?

- a. To determine how the company has performed
- b. To assist in supporting anticipated performance
- c. To highlight profitability
- d. To determine average profits

ANSWER: b. To assist in supporting anticipated performance

All of the items listed here are important components of a historical review of financial data. However, when applicable, the main purpose of the historical review is to support anticipated performance and the assumptions in the valuation models. The analysis of the historical operating performance of a company also indicates how well the management team is performing overall and can lead to information concerning trends. Alternatively, history may not repeat itself and/or history may not be indicative of future performance. For example, the company may not have performed well in the past because of such factors as loss of a key person or litigation. The absence of those items going forward would indicate better performance. The analysis of the historical information should also be made in light of the local, regional, and national economy, as well as the industry outlook. All these items can be used to support assumptions in the valuation models.

EXERCISE 17 Analysts typically spread five years of financial statements because:

- a. Revenue Ruling 59-60 requires five years.
- b. USPAP and SSVS require five years.
- c. An economic cycle is often captured in five years.
- d. Most business plans are based on five years of projections.

ANSWER: c. An economic cycle is often captured in five years. There is no magic to looking at five years of data. In some industries, only the most recent year or just a few years are relevant. In other industries, five to ten years may be more appropriate. The underlying theme is that it captures enough financial information to indicate trends, the performance of the company, and a reasonable economic cycle. Although Revenue Ruling 59-60 suggests that five years of data be reviewed, it is not required. USPAP and SSVS do not have any requirements concerning the number of years of financial information. Although it may be true that many projections include five years of data, this has no real relevance in terms of a historical review of information.

EXERCISE 18 The main drawbacks of publicly available benchmark financial ratios are:

- a. There are very few SIC codes.
- b. They calculate the ratios incorrectly.
- c. The companies that make up the data cannot be used to determine pricing ratios or capitalization rates.
- d. The information is from public companies.

ANSWER: c. The companies that make up the data cannot be used to determine pricing ratios or capitalization rates.

Most of the national databases do have fairly extensive amounts of information by SIC code, and the ratios are typically calculated properly. Most of the information is from closely held companies.

The main drawback of the data is that none of databases are tied to pricing ratios or valuation multiples such as price to earnings or invested capital to EBITDA. There is also no tie to any type of discount or capitalization rate. Therefore, some analysts believe that these types of comparisons are less meaningful. Alternatively, when using the guideline public company method of the market approach, ratios can be tied to valuation multiples. Analysts may observe how the subject company compares to the various ratios of the public companies, then make adjustments to the public company multiples to reflect those differences. Such analysis cannot be performed when using public benchmark data without references or ties to valuation multiples or capitalization rates. However, they can help in a general risk assessment.

It is also important to recognize that many of the ratios are calculated differently and that consistency is important when comparing the subject company being valued to the ratios in the benchmark data.

EXERCISE 19 Indicate whether you believe that National Fastener is a better or worse performer based on the financial ratios and trends previously presented.

ANSWER: Although each ratio is important, some are more useful than others. For example, profit margins, growth, and leverage ratios are often more important than other ratios. In general, it appears that National Fastener is more liquid. In terms of activity ratios, it appears that they are underperforming based on fixed assets, but this may be due to owning more of their fixed assets as opposed to leasing them. In terms of leverage, it appears that the Company uses less debt than its industry counterparts and could add debt if it chooses. The Company's return on equity ratio and return on assets ratio have improved over the period under analysis and are currently approximately the same as the industry. The company's revenue growth was a compound average of 4 percent from 20X2 to 20X4. Overall, it appears that National Fastener is outperforming its peers based on the benchmark data presented. The automotive industry is cyclical, which is reflected in the past performance of the Company and its peers.

EXERCISE 20 All three approaches to value must be applied in all valuations.

- a. True
- b. False

ANSWER: b. False

Although it is true that all three approaches to value should be considered in each valuation, they need not all be applied in every valuation. Most analysts do not use the asset approach (tangible and intangible assets) in valuing an operating company because increases in the accuracy of the appraisal, if any, are not worth the time and expense of having all the assets valued. The value of the aggregated assets, including intangible assets, is reflected in the value derived from the income and market approaches. The asset approach is often the primary approach in valuing investment or holding companies and may be relevant when the net asset values are more than the values from the income and market approaches, which could indicate economic obsolescence of the assets.

EXERCISE 21 In what type of valuation setting is the excess cash flow method most often used?

- a. ESOPs (employee stock ownership plans)
- b. Estate tax
- c. Dissenting rights
- d. Marital dissolution

ANSWER: d. Marital dissolution

Although the excess cash flow method can be used in any valuation, it is most often utilized in marital dissolutions. Analysts may use this method because the court in a jurisdiction is familiar with it. In some situations, exclusion of the excess cash flow method could be perceived as an omission.

EXERCISE 22 On which Revenue Ruling is the excess cash flow method based?

- a. Revenue Ruling 59-60
- b. Revenue Ruling 83-120
- c. Revenue Ruling 68-609
- d. Revenue Ruling 77-287

ANSWER: c. Revenue Ruling 68-609. The excess cash flow method, sometimes referred to as the formula method or the excess earnings method, was first discussed in ARM 34, which was used to determine goodwill in breweries due to Prohibition. This eventually led to Revenue Ruling 68-609. Revenue Ruling 59-60 contains the basic tenets and procedures for valuing closely held businesses. Revenue Ruling 83-120 deals with valuation of preferred stock. Revenue Ruling 77-287 deals with the valuation of restricted securities.

EXERCISE 23 Which method(s) is (are) considered valid under the income approach?

- a. Guideline public company method
- b. Discounted cash flow method
- c. Capitalized cash flow method
- d. Excess cash flow method

ANSWER: b. Discounted cash flow method, and

c. Capitalized cash flow method

Discounted cash flow and capitalized cash flow are the two main methods under the income approach. There are variations of these two methods. The guideline public company method is a market approach, and the excess cash flow method is a hybrid of the income and asset approaches.

EXERCISE 24 In which situation(s) would a capitalized cash flow method be more applicable?

- a. When a company's future performance is anticipated to change from its prior performance
- b. In litigation settings
- c. When a steady historical or pro forma level of cash flow is anticipated to be earned with a constant growth in the future
- d. When valuing very small businesses

ANSWER: c. When a steady historical or pro forma level of cash flow is anticipated to be earned with a constant growth in the future, and

d. When valuing very small businesses

Capitalized cash flow methods are most often used when future performance is anticipated to be at a steady rate, based on either a historical figure, such as an average or recent year, or a pro forma single figure. Discounted cash flow is most often used when future performance is anticipated to be different from the past. Both discounted cash flow and capitalized cash flow methods can be and are used in litigation, although some analysts believe that the capitalized cash flow method is easier to support because it is easier to explain. Capitalized cash flow methods are most often performed in valuations of small businesses, since that is frequently the basis upon which they are bought and sold.

EXERCISE 25 List the two main bases when using the capitalized cash flow (CCF) or discounted cash flow (DCF) methods of the income approach.

ANSWER: 1. Direct equity 2. Invested capital

The two primary bases are direct equity methods of valuation, in which interest expense and debt principal are included, or to use invested capital methods, in which interest expense and debt principal are excluded. Theoretically, the use of both models should give you a similar result. Both methods can be used in most valuations, but depending on circumstances one method may be better than the other. For example, the invested capital method may be used in control valuations where the capital structure of the company is anticipated to change. Alternatively, in a minority valuation, some analysts believe that the direct equity method is more appropriate, since the minority shareholder cannot change the capital structure of the company. It is often a matter of preference.

EXERCISE 26 Under the direct equity basis, what are the components of net cash flow?

ANSWER:

Net income after tax

Plus: depreciation/amortization and noncash charges

Minus: capital expenditure requirements
Plus/minus: working capital requirements

Plus: new debt principal paid in Minus: debt principal paid out

EXERCISE 27 For the invested capital basis of the income approach, list the components of net cash flow.

ANSWER:

Net income after tax

Plus: interest expense times 1 minus the tax rate
Plus: depreciation/amortization and noncash charges

Minus: capital expenditure requirements

Plus/minus: working capital requirements (debt-free)

EXERCISE 28 What is the difference between minority cash flows and control cash flows?

ANSWER: The difference between control cash flows and minority cash flows is normalization adjustments. Normalization adjustments for control include excess compensation and perquisites. When such amounts are added back, it is considered a control value. When such amounts exist and are left in as expenses, it is considered a minority value, since the minority shareholder cannot change the policies of the control owner.

EXERCISE 29 Which adjustment(s) are made when valuing both minority and control cash flows?

- a. Nonrecurring items
- b. Nonoperating assets
- c. Excess compensation
- d. Perquisites
- e. Taxes

ANSWER: a. Nonrecurring items,

- b. Nonoperating assets, and
- e. Taxes

Adjustments are made to cash flows to calculate a normalized amount of cash flows into perpetuity. Nonrecurring items are typically removed from the cash flows. Most analysts will also adjust the P&L for the effect of removing nonoperating assets from the balance sheet. For example, there may be an adjustment for interest income associated with excess working capital, as is the situation here with National Fastener. Excess compensation and perquisites are adjusted only in control cash flows. When using after-tax rates of return, taxes are typically an expense in minority and control cash flows.

EXERCISE 30 Assume the company does not have any control adjustments and the company is run to the benefit of all shareholders without any shareholders taking out cash flow over or above what they are entitled. Is this value control or minority?

ANSWER: The value would clearly be control standalone, since the capitalized cash flow is the cash flow of the entire company reflecting the benefits to all shareholders. Since the current owner of the company is operating to the benefit of all shareholders, it becomes a minority value as well. However, it is also a minority value only to the extent that the current owners continue their policies. Policies can change and/or new owners can come in, which increases the risk such that a discount for a lack of control or minority interest may still be appropriate. A possible adjustment for lack of control may be appropriate to reflect the risk of potential future detrimental changes to the minority interest(s) from either the owner or the policies or both.

EXERCISE 31 List some of the nonoperating/excess assets that are sometimes encountered in a business valuation.

ANSWER: Marketable securities

Cash

Inventory

Working capital

Land

Buildings

Condominiums

Boats

EXERCISE 32 In valuing a controlling interest in a corporation, most analysts agree that the nonoperating and/or excess assets of the business must be removed from the cash flows and valuation of the operating business, and then be added back at fair market value.

- a. True
- b. False

ANSWER: a. True

The rate of return requirements for excess assets and/or nonoperating assets are often less than the cost of capital of the company. As such, including the income and expenses of the nonoperating/excess assets in the P&L, and capitalizing such amounts at a higher rate of return, will undervalue the company. In some situations, nonoperating assets generate no income. The capitalization of cash flow without adjustment for such assets would result in a zero value for those assets. This is why these types of assets are typically removed from the balance sheet with appropriate P&L adjustments, and then added back to the operating value of the business.

EXERCISE 33 In valuing a minority interest of a company, most analysts agree that the nonoperating and/or excess assets of the business must be removed from the cash flows and valuation of the operating business, and then be added back at fair market value.

- a. True
- b. False

ANSWER: a. True

Most analysts believe that the same methodology should be employed as in valuing a controlling interest; that is, value the nonoperating or excess assets separately and make the related P&L adjustments. They would then apply a discount for lack of control and a discount for lack of marketability to the

nonoperating asset value before adding it to the company's discounted operating value. Other analysts believe that a minority stockholder has no access to these types of assets and the P&L should be as it is, reflecting the way the company operates. The assets are not separately valued and added back. This can create a situation where the value of nonoperating/excess assets may be zero, which is difficult to defend.

EXERCISE 34 In the valuation of National Fastener, one of the periods that the analyst decided to use was a straight average of the adjusted income before income taxes for three historical years. Besides a straight average, what other method(s) can be used to determine the appropriate cash flow to be capitalized into perpetuity?

- a. Weighted average
- b. Most recent fiscal year
- c. Most recent trailing 12 months
- d. Trend line analysis/next year's budget
- e. DCF average of next three years

ANSWER: a. Weighted average,

- b. Most recent fiscal year,
- c. Most recent trailing 12 months, and
- d. Trend line analysis/next year's budget

The first four items can be considered in valuing and determining how cash flow should be capitalized. An example of a weighted average is (3, 2, 1), which would be used for a three-year average, with the most recent year given the weight of 3, the second year 2, and the most distant year 1. Some analysts will use (5, 4, 3, 2, 1) for five years of data. The weighted average is typically used when the analyst believes there may be an increasing trend but wants to reflect the possibility of potential underperforming years. Fiscal year-end and trailing 12 months are typically used when there is anticipation that the most recent information is indicative of the future. Next year's budget may be used if the analyst believes it is more indicative of the potential performance of the company. DCF is typically used when historical cash flows are not anticipated to continue to grow at a steady level. DCF and capitalized cash flow methods do not average future years.

EXERCISE 35 Analysts will generally use a straight historical average where the earnings and cash flows are more volatile.

- a. True
- b. False

ANSWER: a. True

In the case of National Fastener, the automotive industry is fairly cyclical such that it is reasonable to consider a straight historical average. The analyst also recognized that the Company has improved margins reflected in the trailing 12 months cash flow and that the financial performance of the company would improve with the addition of an important customer near term, which is reflected better in the DCF method. The other methods are often more appropriate where there is more of a trend in the historical results.

EXERCISE 36 Which situation is most appropriate when adjusting cash flows for depreciation and capital expenditures?

- a. Capital expenditures should be similar to or exceed depreciation.
- b. Depreciation should exceed capital expenditures.
- c. The actual unadjusted amounts should be capitalized.

ANSWER: a. Capital expenditures should be similar to or exceed depreciation.

A common mistake made in business valuation is to capitalize cash flow into perpetuity where the depreciation greatly exceeds the future capital expenditure requirements. This is obviously an impossible situation, since future capital expenditures have to be made in order to generate future depreciation. Many analysts will normalize depreciation and capital expenditures by making them equal or similar. This equalization process is a simplifying assumption, since capital expenditures would exceed depreciation due to the inflationary pressure in a stable business. However, this can have an effect on value. There are situations in which depreciation/amortization can exceed capital expenditures within a definite period of time. This occurs when there is a previous purchase of a long-life asset such as a building, or where goodwill or other intangible assets are amortized over a longer period of time. In those situations, it may be appropriate to calculate separately the value of the tax benefit for the finite period during which depreciation exceeds capital expenditures. See Chapter 5 of *Financial Valuation Applications and Models*, 4th edition, for additional information.

EXERCISE 37 Assuming taxes are to be deducted, what two choices may be made in making the tax adjustments?

- a. Tax each year historically, then calculate an average.
- b. Taxes should never be deducted in the value of an S corporation.
- c. Make all adjustments in the historical period pre-tax, determine the average, and then deduct for taxes.

ANSWER: a. Tax each year historically, then calculate an average, and

b. Make all adjustments in the historical period pre-tax, determine the average, and then deduct for taxes.

Some analysts will compute taxes in each of the historical years used in the calculation of average income as opposed to making all the adjustments pretax, calculating the average, and then adjusting for taxes. When the annual tax rates are the same, this will not have an impact. However, in C corporations, where taxes may differ for each year due to certain types of planning, an average of five years after-tax income may be different from the average of five years pre-tax, which is aggregated with one tax amount applied to it. In some years, the actual taxes might have been lower than the marginal rate. As such, some analysts believe that an average tax-affected rate is more appropriate. Other analysts believe that the company will eventually end up paying close to the marginal rate into perpetuity, and that would be the more appropriate rate.

EXERCISE 38 Which economic benefit stream(s) can be used for cash flow in a capitalized cash flow method?

- a. After-tax income
- b. Pre-tax income
- c. Net cash flow
- d. EBITDA (earnings before interest, taxes, depreciation, and amortization)
- e. Revenues
- f. Debt-free net income
- g. Debt-free cash flow

- ANSWER: a. After-tax income
 - b. Pre-tax income
 - c. Net cash flow
 - d. Debt-free net income
 - e. Debt-free cash flow

Cash flow is used in many business valuations. In certain circumstances, particularly with small businesses, income may be capitalized on both an after-tax and a pre-tax basis. However, income in these cases approximates cash flow (see below). Also, a pre-tax capitalization rate should be applied to pre-tax income/ cash flow. Debt-free net income, after-tax income with interest expense added back, is used in the invested capital basis. Debt-free cash flow is debt-free net income with depreciation added back. Although theoretically EBITDA could be a capitalizable amount, it is more often used in the market approach than the income approach. Revenues are seldom capitalized in the income approach, although they can be capitalized through the market approach.

Some debate occurs in the valuation industry concerning the use of either cash flow or income when performing the income approach, but the point is frequently moot because analysts often make depreciation and capital expenditures similar or somewhat different (capital expenditures exceed depreciation). The only other real adjustment would be incremental working capital. Not all

businesses require incremental working capital, particularly cash businesses or businesses whose receivables are turned quickly. As such, and particularly in small businesses, cash flow and income may be similar. However, many businesses require working capital to fund growth. In those situations, working capital should be considered as a cash outflow. Cash flow in a growing business would typically be less than income in those businesses with working capital needs. Debt would also have to be normalized with regard to debt principal in and debt principal out. If they are normalized, they may net out to net income.

EXERCISE 39 When is it more appropriate to use a discounted cash flow method instead of a capitalized cash flow method?

ANSWER: If a company anticipates growing at a steady rate in the future, it is unnecessary to prepare a discounted cash flow method. In such cases, a capitalized cash flow method is sufficient. Discounted cash flow methods are typically used when short-term growth is anticipated to be different from long-term growth and/or the company's cash flow has not reached a stabilized or normalized period that can be capitalized into perpetuity.

For illustrative purposes, a capitalization of cash flows was prepared for National Fastener, as well as a discounted cash flow analysis. In practice, only one method would generally be prepared, relied upon, and presented if the income approach was applicable. In the near term, National Fastener is expected to grow at rates above the long-term perpetuity growth rate. As such, a discounted cash flow approach can better capture expectations for the future cash flows of the Company.

EXERCISE 40 In the terminal year of a discounted cash flow analysis, analysts often use the simplifying assumption that depreciation equals capital expenditures.

- a. True
- b. False

ANSWER: a. True

In order to determine operating cash flows, we have subtracted capital expenditures from net income (pre-interest and after-tax) and added back total depreciation. We have assumed that expectations regarding these items are offsetting at their historical levels, as they have been relatively stable historically. This is a simplifying assumption since there may be some difference between capital expenditures, which are purchased in current dollars, and depreciation, which is in historical dollars.

EXERCISE 41 When using the direct equity basis instead of the invested capital basis, assumptions of capital structure can be avoided.

a. True

b. False

ANSWER: b. False

One of the reasons often given for using the direct equity basis is that the analyst can avoid making assumptions of capital structure with regard to the percent debt and equity a company will use. However, a direct equity model requires assumptions of normalized debt principal in and debt principal out. An assumption to normalize the amount of debt that is used in a company inherently requires an assumption of a capital structure. As such, debt is a consideration in using the direct-equity basis.

EXERCISE 42 When using the invested capital basis to determine a control value, the analyst should always use an optimal capital structure in the weighted average cost of capital.

a. True

b. False

ANSWER: b. False

Although many analysts will use an optimal capital structure, frequently based on a review of public company capital structures, it is not always the basis to use for control value. If the management of a company decides to operate with a different capital structure than the industry, application of management's capital structure assumptions would result in a control value on a standalone basis reflecting the current policies of management.

EXERCISE 43 Name the two methods most often used to derive a cost of equity in the income approach.

ANSWER: 1. Modified capital asset pricing model (MCAPM)

2. Build-up method

Controversy exists in the valuation industry regarding whether the MCAPM should be used to value small businesses. Some analysts believe that MCAPM should not be used to value even large businesses. The only difference between the MCAPM and the build-up method is the use of beta. It is often difficult to find betas for small publicly traded companies that could be applicable to small private companies. Betas may be derived from many sources and calculated in many

different ways. As such, betas on the same date can differ for the same public company. Sometimes betas are available to be used in a MCAPM for small companies. Some industries include large numbers of public small companies from which betas may be derived. However, if there are no reasonably similar companies whose betas could be used as a proxy for the small closely held company, then the build-up method may be the best method to use. However, if the betas are reasonable and can be used, then the MCAPM may be considered as well. Each of these situations is fact- and circumstance-specific and could differ, depending on the type of company, the industry of the subject company, and the size of the company.

EXERCISE 44 Should build-up method and MCAPM rates of return be applied to income or cash flow?

ANSWER: The general consensus is that these are cash flow rates of return. They are also rates of return after corporate tax but before personal investor tax. The rates of return are based on dividends and capital appreciation. Dividends are paid after-tax by public corporations, and capital appreciation is also after-tax due to retained earnings used to grow the business. However, these returns are pre-tax to an individual investor. According to Duff & Phelps, traditional rates of return derived using their data, whether MCAPM or build-up method, should be applied to after-tax cash flows.

EXERCISE 45 Why are long-term 20-year U.S. Treasury coupon bonds most often used for the risk-free rate of return in both the build-up method and the MCAPM?

ANSWER: Most analysts use a 20-year risk-free rate of return from a U.S. Treasury bond because the data used to derive the equity risk premium have been calculated based on this 20-year Treasury bond benchmark for all periods analyzed by the studies (the equity risk premium will be explained in depth later). The rate reflects a long-term investment, an assumption used in most closely held business valuations. Twenty years is the bond that has been in existence over a long period of time.

EXERCISE 46 What benchmark is the Duff & Phelps common stock equity risk premium return most often based on?

- a. S&P 500
- b. New York Stock Exchange
- c. Dow Jones Industrial Average
- d. Russell 5000

ANSWER: The risk premium used in this report is from the S&P 500. This is the most commonly used benchmark for determining equity premiums for the marketplace.

EXERCISE 47 In applying a Duff & Phelps CRSP size risk premium, what are some of the choices available to analysts?

- a. 10th-decile annual beta
- b. 10th-decile monthly OLS beta
- c. 10th-decile monthly sum beta
- d. 10A monthly OLS beta
- e. 10B monthly OLS beta
- f. Micro-cap annual beta
- g. Micro-cap monthly OLS beta
- h. Micro-cap sum beta
- i. 10W monthly OLS beta
- j. 10X monthly OLS beta
- k. 10Y monthly OLS beta
- l. 10Z monthly OLS beta
- m. All of the above

ANSWER: m. All of the above

In the valuation of National Fastener, the analysts decided to use the CRSP 10th-decile size premium (return in excess of CAPM) based on a monthly OLS beta. All of these small stock premiums are the premiums in excess of CAPM that Duff & Phelps uses to derive a size risk premium. Some analysts will use the 10th decile, whereas others will use the micro-cap strata, which are the 9th and 10th deciles. Opinions differ as to which size premiums should be used based on the type of beta. They could be monthly OLS (ordinary least squares) betas, annual betas, or sum betas. OLS betas rely on nonlagged market data. Annual betas are based on annual return data. Sum betas are sometimes referred to as lagged betas and reflect the fact that small stock market reactions may lag the market by a certain amount of time. Some analysts use a micro-cap small stock risk premium because the average includes more companies. For Duff & Phelps, in 20X5, the micro-cap risk premium was 3.74 percent versus the 5.78 percent used for the 10th decile. The 10B decile risk premium was 8.94 percent. Although the 10B decile risk premium is based on smaller companies, it is also based on a lower number of companies that make up the average. No clear standard currently exists for selecting size risk premiums, although for small companies the 10th-decile and micro-cap categories seem to be most used. If larger companies/categories are used for the size premium, an additional adjustment may be made to specific company risk. Duff & Phelps also reports on 10W, 10X, 10Y, and 10Z, which have even fewer companies than 10A or 10B. Also, all of the subdecile 10 categories contain many risky companies, particularly 10z.

EXERCISE 48 Which of these rates of return are derived using Duff & Phelps data?

- a. Minority rates of return
- b. Control rates of return
- c. Majority rates of return
- d. Neutral

ANSWER: d. Neutral

Another issue is whether the resultant rate represents a minority or controlling interest return. Given that the underlying data used by Duff & Phelps (and formerly Ibbotson) in its empirical studies represent minority interest returns in publicly traded companies, many analysts have concluded that the resulting rates derived from the use of this method already incorporate the attributes of minority ownership. Duff & Phelps (and formerly Ibbotson), however, argue that the rates derived from its data are neutral and incorporate neither control nor minority characteristics. The rationale is that most publicly traded companies optimize shareholder returns as a key corporate strategy and that the arrival of a new controlling owner would not be able to improve such returns unless that owner were a strategic buyer (which then may shift the standard of value away from FMV). There is no proof that such a control position could improve the shareholder returns. This issue was further discussed in an article by Eric Vander Linden in the December 1998 Business Valuation Review quarterly newsletter, titled "Cost of Capital Derived from Ibbotson Data Equals Minority Value?" Vander Linden concludes, after reference to several other recognized sources, that adjustments for control versus minority attributes are done through the numerator (cash flow) and not the denominator (rate of return). This view is also presented by the American Institute of Certified Public Accountants, the American Society of Appraisers, the Institute of Business Appraisers, and the National Association of Certified Valuators and Analysts in their business valuation courses.

EXERCISE 49 When using the modified capital asset pricing model (MCAPM) to derive an equity cost of capital for a controlling interest, it is sometimes necessary to adjust beta for differences between the capital structure of the public companies and the capital structure of the subject company being valued. This is not necessary if the capital structure is assumed to be the same. Given the following information, calculate the unlevered and relevered beta using the Hamada formula.

a. Average beta of guideline public companies = .66Tax rate = 33 percent

Market value capital structure = 10 percent debt, 90 percent equity The formula for unlevered beta is:

$$Bu = Bl / (1 + (1 - t) (Wd / We))$$

Where:

Bu = Beta unlevered

Bl = Beta levered

t = Tax rate for the company

Wd = Percentage of debt in the capital structure (at market value)

We = Percentage of equity in the capital structure (at market value)

b. Assuming that National Fastener has a capital structure of 20 percent debt and 80 percent equity, what would be the beta? The formula to relever the beta is:

$$Bl = Bu (1 + (1 - t) (Wd / We))$$

EXERCISE 50 A list of risk factors was previously presented for National Fastener to calculate the company-specific risk premium. Discuss the different methods for determining what the actual company-specific risk premium should be.

ANSWER: In this valuation, the analyst made a selection of an aggregate 2 percent risk premium. This was based on the analyst's judgment concerning the additional risk of the previously described items. This is a common method of selecting company-specific risk premiums. Other methods that can be used are some type of numerical system placed on the categories (i.e., -3, -2, -1, 0, 1, 2, 3). However, this sometimes implies accuracy that may not exist and may be difficult to defend in a litigation setting. Other analysts use a plus and minus system to determine the potential amount of company-specific risk.

EXERCISE 51 Company-specific risk premiums can be determined from Duff & Phelps data.

a. True

b. False

ANSWER: b. False

Company-specific risk premium data are not included in editions of the Duff & Phelps LLC *Valuation Handbook—Guide to Cost of Capital*. In fact, there are no empirical studies indicating company-specific risk premiums. This is a judgment area for the analyst.

EXERCISE 52 Assume that the Duff & Phelps historical CRSP equity risk premium is 7 percent and the 10th-decile size premium is 5.78 percent. Assume that the relevered beta of the guideline companies is 0.71 under MCAPM and that the industry risk premium is not relied upon in the BUM. Calculate the cost of equity for National Fastener under the MCAPM and BUM methods.

ANSWER:

BUM Method

 R_f = Risk-free rate of return = 2.62% RP_m = Equity risk premium = 7.00% RP_s = Size premium = 5.78% RP_c = Company specific risk = 2.00% RP_c = Cost of equity = 17.40%

 $K_e = \text{Cost of equity} = 1/.40$

MCAPM Method

 R_f = Risk-free rate of return = 2.62%

Beta = 0.71

 RP_m = Equity risk premium = 7.00% RP_s = Size premium = 5.78% RP_c = Company-specific risk = 2.00% K_e = Cost of equity = 15.39%

EXERCISE 53 Assume that the Duff & Phelps supply-side CRSP equity risk premium is 6.21 percent and the 10th-decile size premium is 5.78 percent. Assume that the relevered beta of the guideline companies is 0.71 under MCAPM and that the industry risk premium is not relied upon in the BUM. Calculate the cost of equity for National Fastener under the MCAPM and BUM methods.

ANSWER:

BUM Method

 R_f = Risk-free rate of return = 2.62% RP_m = Equity risk premium = 6.21% RP_s = Size premium = 5.78% RP_c = Company-specific risk = 2.00% K_e = Cost of equity = 16.61%

MCAPM Method

 R_f = Risk-free rate of return = 2.62%

Beta = 0.71

 RP_m = Equity risk premium = 6.21% RP_s = Size premium = 5.78% RP_c = Company-specific risk = 2.00% K_e = Cost of equity = 14.83%

EXERCISE 54 Assume that the Duff & Phelps historical market equity risk premium is 5.05 percent and the 25th-size portfolio premium is 6.10 percent. Calculate the cost of equity for National Fastener.

ANSWER:

Beta = 0.71 RP_m = Equity risk premium = 5.05% RP_s = Size premium = 6.10% RP_c = Company-specific risk = 2.00% K_c = Cost of equity = 14.32%

 R_f = Risk-free rate of return = 2.62%

EXERCISE 55 Assume that the Duff & Phelps combined equity risk premium and size premium for the 25th-size portfolio is 13.10 percent. Calculate the cost of equity for National Fastener.

ANSWER:

 $\begin{array}{lll} R_f & = Risk\mbox{-free rate of return} = 2.62\% \\ (RP_m \& RP_s) = Risk \mbox{ premium} & = 13.10\% \\ RP_c & = Company\mbox{-specific risk} = 2.00\% \\ K_c & = Cost \mbox{ of equity} & = 17.72\% \\ \end{array}$

EXERCISE 56 In addition to equity risk size premiums based on eight alternative measures of size, Duff & Phelps presents risk premium data based on three measures of risk that are not based initially on size. Name those three measures of risk.

ANSWER:

- 1. Five-year average operating margin
- 2. Coefficient of variation of the operating margin
- 3. Coefficient of variation of the return on equity over five years

EXERCISE 57 Assume that the analysis using the three alternative measures of risk from Duff & Phelps results in a cost of equity of 15.62 percent. What is the range of the seven costs of equity for National Fastener and what is the conclusion for the cost of equity? Explain your reasons and support.

ANSWER:

Range of costs of equity: 14.32% to 17.72%

Concluded cost of equity: 16%

Supporting reasons: The mean average and median average are 15.99 percent and 15.62 percent, respectively. The range is fairly narrow at 3.4 percent. A cost of equity somewhere inside the range is reasonable. See *Financial Valuation Applications and Models*, 4th edition, for further information, particularly Chapter 6 addendums and the report that is part of Chapter 11.

EXERCISE 58 Which of these factors causes the cost of debt to be tax-affected?

- a. Debt principal is tax deductible.
- b. Interest expense is tax deductible.
- c. It should not be tax-affected since equity is not tax-affected.
- d. Debt and interest are tax deductible.

ANSWER: b. Interest expense is tax deductible. Principal is never tax deductible for a corporation (ESOP exception). Since interest expense is a cost of debt and is tax deductible, an adjustment for taxes is appropriate. Equity returns derived by using Duff & Phelps data are already on an after-tax basis, so no adjustments need to be made to equity returns.

EXERCISE 59 Using the information in the text, calculate the weighted average cost of capital for National Fastener.

ANSWER: 80% (16%) + 20% (2.78%) = 13.36%

EXERCISE 60 Which methods can be used to determine the weights in the weighted average cost of capital?

- a. Iterative process
- b. Guideline public companies
- c. Aggregated public industry data
- d. Risk Management Associates
- e. Book values
- f. Anticipated capital structure

- ANSWER: a. Iterative process
 - b. Guideline public companies
 - c. Aggregated public industry data
 - f. Anticipated capital structure

Both guideline public company information and aggregated public industry data are often viewed as optimal capital structures with the idea that public companies use an optimal amount of debt to lower their weighted average cost of capital. This assumes the subject company can access a similar amount of debt. Iterative processes can be used for both minority and controlling interests but are more typically used in minority valuations. Clients will often have an anticipated capital structure that can also be employed. Risk Management Associates and book value information are all based on book values, not fair market values. The weights to be used in the weighted average cost of capital are fair market value weights, not book value weights.

EXERCISE 61 Explain the iterative process for determining the weights in the weighted average cost of capital.

ANSWER: The analyst will make an initial capital structure assumption to value the company. Then using the actual debt of the company, the analyst will calculate the percent of debt in the capital structure implied by the initial value conclusion. If the implied capital structure weighting is different than the assumed weighting, the analyst uses multiple reiteration calculations of the capital structure assumption until it reconciles to the capital structure that is in existence based on the value of debt. The use of spreadsheets makes this reiteration process easy to accomplish.

EXERCISE 62 Changing the amount of debt in the capital structure of the company has no effect on the return on equity.

- a. True
- b. False

ANSWER: b. False

As the assumption of capital structure of the company changes through an iterative process, increases in the level of debt may increase the rates of return on equity as well. The more debt the company assumes, the higher the return on equity. This can be reflected directly through the use of MCAPM by levering and unlevering betas based on the different debt levels. If the build-up method is used, the adjustment is based more on judgment.

EXERCISE 63 When valuing a controlling interest in a company, should you use the optimal capital structure based on public data or the capital structure anticipated to be employed by the owner of the company?

ANSWER: This answer depends on the type of valuation being performed. The valuation could be from the perspective of a sale to an owner that could employ a different capital structure. The company may be valued on a standalone basis, and the owners may want to know what it is worth to them with the existing or anticipated capital structure. In the valuation of National Fastener, the Company was valued using industry capital weights, which were consistent with management's expectations.

EXERCISE 64 Calculate the capitalization rate from the information in the text and calculate the value based on the trailing 12 months cash flow.

ANSWER: (13% - 4%) = 9%

\$1,759,370 / .09 = \$19,548,552

EXERCISE 65 Items used to support growth rates in the capitalized cash flow method of the income approach include:

- a. Inflation
- b. Nominal gross domestic product
- c. Industry growth rate
- d. Actual historical company growth rate
- e. All of the above

ANSWER: e. All of the above

The selection of the growth rate can have a tremendous impact on the value conclusion. Value is very sensitive to growth. Many analysts use the inflation rate as the perpetual growth rate in the capitalized capital cash flow method. Others use the average nominal (real and inflation) growth of the GDP of the United States (as considered in the case of National Fastener), which has been

6 to 6.5 percent when measured from 1926 to the present. Others also use prospective (10-year forecast) information (real GDP and inflation) from sources like the *Livingston Survey* (Federal Reserve Bank of Philadelphia), which has been around 5 percent. Still other analysts use what they believe to be the anticipated or long-term industry growth rate. Economic and industry information can be helpful in supporting the growth rate. A company's historical growth is also a consideration.

EXERCISE 66 Size is often a consideration in selecting guideline public companies. The general criterion for using size as a selection parameter is:

- a. Two times
- b. Five times
- c. Ten times
- d. None of the above

ANSWER: d. None of the above

There is really no general criterion for selecting guideline public companies based on size. A rule of thumb used by some analysts is no greater than 10 times revenue. However, this is not always applicable. Analysts adjust for size not so much because the guideline public companies are larger but because size typically indicates that the company is more diversified both in product lines and geography. Furthermore, larger companies tend to have more management depth.

EXERCISE 67 In the valuation of National Fastener, only one company, P&F Industries, Inc., was comparable in size, but all the guideline companies operate in the same industry and were not considered too big to provide growth, margin, and multiple data for National Fastener. Given that fact, which option would probably result in the best presentation of the GPCM in the valuation of National Fastener?

- a. Only use P&F Industries.
- b. Use all guideline public companies.
- c. Reject the guideline public company method.
- d. Use the guideline public company method but only as a reasonableness test for the other approaches.

ANSWER: b. Use all guideline public companies.

The guideline public companies are somewhat larger than the subject company but were determined to be similar in terms of industry, products, operations, growth, and margin opportunities. As such, the guideline public company data was deemed to be reliable for application in the guideline public company method. **EXERCISE 68** Guideline public company methods are not applicable to smaller businesses such as National Fastener.

- a. True
- b. False

ANSWER: b. False

Some analysts believe that guideline public companies are not applicable to small businesses. Such analysts may be surprised by the number of potential publicly traded companies that are similar in size in certain industries. At the very least, in valuing a small company, a quick review of public companies should be undertaken to determine if there are any similar companies.

EXERCISE 69 Which initial selection criteria are generally used by analysts in choosing guideline public companies?

- a. Size
- b. Return on equity
- c. Profit margin
- d. Industry similarity
- e. Similar products and services
- f. Growth rates
- g. Investors' similarities

ANSWER: a. Size

- d. Industry similarity
- e. Similar products and services

Analysts typically screen initially by industry similarity, including similar products and services, and then by size. Once an initial selection of companies is made, profit margins, return on equity, and growth rates may also be considered. However, these are typically not used in the initial screening. Some analysts will also look at similarity in terms of investor preferences. They believe that the selection process for guideline public companies can be expanded outside the particular industry in which the company operates. They will look for similar investment characteristics such as growth, return on equity, profit margin, and so forth. Their belief is that a prudent investor would invest in companies that have similar characteristics regardless of industry. Generally, the courts have been reluctant to accept companies outside the subject company's industry that are not at least somewhat similar in product, market, and so on.

EXERCISE 70 Which of these are commonly used guideline public company valuation multiples?

- a. Price/earnings
- b. Invested capital/revenues
- c. Price/gross profits
- d. Invested capital/book value of equity
- e. Invested capital/EBITDA
- f. Invested capital/EBIT
- g. Price/assets
- h. Invested capital/debt-free net income
- i. Invested capital/debt-free cash flow

ANSWER: a. Price/earnings

- b. Invested capital/revenues
- e. Invested capital/EBITDA (widely used)
- f. Invested capital/EBIT
- h. Invested capital/debt-free net income
- i. Invested capital/debt-free cash flow

A variety of multiples can be used to value a company. In the valuation of National Fastener, the analyst used invested capital to net revenues, EBITDA and EBIT, and price to equity. This is a judgment area, and the analyst should consider all potential multiples and decide which ones may be the best fit. It is preferable for the numerator and denominator to be similar. For example, if price of equity is in the numerator, then the earnings' parameters should be the earnings available to equity in the denominator. If the numerator is invested capital, then the denominator should be the earnings' parameters available for invested capital. Price/gross profit, invested capital/book value of equity, and price to assets would not be the best multiples to use here.

EXERCISE 71 When using the guideline public company method, at what point in time are the prices of the public companies' stock valued?

- a. 30-day average
- b. As of valuation date
- c. Six-month average
- d. Three-year average

ANSWER: b. As of valuation date

Valuation theory holds that the value should be at a single point in time, typically as of a single day. Whatever the day the valuation is, that is the day the stock price should be used. Some analysts develop multiples based on the current price divided by a projected income or cash flow figure. They believe that this multiple better represents the price of the stock to the anticipated performance of the company. This assumes reasonable unbiased projected income or cash flow.

EXERCISE 72 What type of value is the result of the application of the guideline public company method?

- a. Control
- b. Minority
- c. Neutral

ANSWER: c. Neutral

Some analysts argue that the underlying stocks are minority such that the application of a valuation multiple would result in a minority value. Others argue that the valuation multiples are basically inverted capitalization rates (earnings, not net cash flow) derived from the public market. As such, the underlying theory about minority/control being in the cash flows for the income approach should also apply to the market approach. If that is true, then the application of valuation multiples would be neutral and control/minority would, like the income approach, be an adjustment to the earnings' parameter to which the valuation multiples are applied.

EXERCISE 73 In selecting multiples from guideline public companies for application to a subject company such as National Fastener, what options do analysts typically have?

- a. Mean or harmonic mean average of the multiples
- b. Median average of the multiples
- c. Individual guideline company multiples
- d. Average multiples with a fundamental discount
- e. All of the above

ANSWER: e. All of the above

Some analysts use an average of multiples to derive a value. Some use a mean average that is the sum of the indications divided by the number of indications or a harmonic mean based on averaging the reciprocals of the data points. Others believe that the median average is a better fit because it excludes outliers since it is the midpoint. Still other analysts believe that you should look at each guideline company separately, decide which ones are more comparable, and rely on those multiples rather than an average of the multiples. Many analysts will use averages, then take a fundamental discount from the average to reflect the subject company's differences. This fundamental discount is often used to adjust for size and/or other factors.

EXERCISE 74 Which of these time periods can be used to derive valuation multiples from publicly traded companies?

- a. Most recent four quarters
- b. Most recent fiscal year-end

- c. Three-year average
- d. Five-year average
- e. One-year projected
- f. Five-year future average

- **ANSWER:** a. Most recent four quarters
 - b. Most recent fiscal year-end
 - c. Three-year average
 - d. Five-year average
 - e. One-year projected

Analysts must decide whether the multiples derived from publicly traded companies should be the most recent multiples, typically based on an annual fiscal year-end or four-quarter trailing figure or a multiple of some average earnings such as a three-year or five-year average. If it is believed that an average multiple would be more indicative of future performance of a company, then that may be more appropriate. Many analysts use both—the most recent period as well as a historical period—and weight them according to what they think would be most indicative of the future value and performance of the company. Some analysts also use a multiple based on a one-year projected annual earnings parameter typically forecasted by investment banking houses that follow the company. Occasionally an analyst will use a multiple of a future amount over one year forward, but a multiple of a five-year average is not recommended.

EXERCISE 75 Which of these are general transaction databases considered by analysts in valuing companies?

- a. Pratt's Stats
- b. RMA
- c. Institute of Business Appraisers
- d. DoneDeals
- e. Bizcomps
- f. Mergerstat Review

ANSWER:

- a. Pratt's Stats
- c. Institute of Business Appraisers
- d. DoneDeals
- e. Bizcomps
- f. Mergerstat Review

RMA provides book value ratios of companies, not pricing data.

EXERCISE 76 What is one of the most significant problems when attempting to use transaction data?

ANSWER: One of the common mistakes made in the application of transaction multiples is to aggregate the transactions from the different databases. This will result in an inaccurate valuation, since each of the databases collects and presents its data in a different format. Some of the databases use invested capital multiples, some use equity multiples, some include working capital, some include debt, some include inventory, and so on. When using these databases, if they are different, it is recommended that information from each database be used and applied separately to the subject company's earnings parameters. This will avoid any possible inaccuracies. The other major problem is the absence of meaningful detail about the transactions, which often makes the method unsupportable or to be used only as a corroborating method.

EXERCISE 77 Is a 100 percent controlling interest marketable or nonmarketable?

ANSWER: The term *marketable*, as it applies to a 100 percent controlling interest, assumes the entire company can be sold in a reasonable amount of time. It does not mean the company is liquid. The price of the transaction should reflect some reasonable amount of time to sell the company such that marketability issues are included in the value. The marketability, or lack thereof, is already reflected in the transaction price(s) when using the guideline company transaction method.

While many experts agree, in theory, on the need for a discount for lack of marketability/liquidity on controlling interests in a privately held company, no direct empirical evidence is available to support such a discount. The initial public offering and restricted stock studies used to develop discounts for lack of marketability are based on minority interests, not controlling interests.

EXERCISE 78 Discounts for lack of marketability/liquidity can be applied to 100 percent controlling interests in a company such as National Fastener.

- a. True
- b. False

ANSWER: a. True

There is continuing controversy about whether discounts for lack of market-ability/liquidity should be applied to controlling interests, particularly 100 percent controlling interests, as in National Fastener. Some analysts believe that a 100 percent interest is marketable and no discount would apply. Other analysts believe that it depends on the underlying methodology used to derive

the prediscount value. For example, when using valuation multiples or rates of return derived from public company data, the rates of return, or multiples, reflect the fact that the public stock can be sold in a very short amount of time, typically receiving cash within three days. You cannot sell a company and receive cash within three days. These analysts believe that the underlying method assumes such marketability or liquidity, which does not exist in a controlling interest in a private company. Thus, some level of discount may be appropriate. There are no known studies to determine discounts for lack of marketability/ liquidity of a 100 percent controlling interest in a business. Many analysts rely on discount for lack of marketability studies for minority interests and, using their judgment, reduce the discount to reflect the 100 percent control. Option models and the time period differences for restricted stock may be useful here as well. No discount for lack of liquidity was taken for National Fasteners.

EXERCISE 79 Which discount for lack of marketability studies and/or data are available in determining discounts?

- a. Mergerstat Review
- b. Restricted stock studies
- c. IPO studies
- d. Court cases
- e. Flotation costs
- f. CAPM
- g. Duff & Phelps
- h. Quantitative Marketability Discount Model (QMDM)
- i. Option pricing models

ANSWER: b. Restricted stock studies

- c. IPO studies
- e. Flotation costs
- h. QMDM
- i. Option pricing models

Analysts typically rely on restricted stock studies, which compare restricted or letter stocks to their publicly traded counterparts. Some analysts also use IPO studies, based on the comparison of transactions of interests in companies within months (or years) of when they went public. Flotation costs are sometimes considered when valuing much larger companies. However, their application assumes that the subject company is an IPO candidate. QMDM is the Quantitative Marketability Discount Model, which looks at holding periods for investments for minority interests in closely held companies. It is a present-value technique that has gained increased acceptance currently. Option pricing models like Finnerty and Longstaff have gained visibility in recent years. *Mergerstat Review* reports control premiums; MCAPM is the model for deriving

discount rates; and Duff & Phelps contains data for calculating risk premiums. Court cases will indicate discounts for lack of marketability, but they are very fact- and circumstance-specific and should seldom be relied on in determining discounts. Knowledge of court cases can be important, but they should not be used as the primary method for discounts.

EXERCISE 80 Although a 100 percent controlling interest is valued in National Fastener, numerous other levels of ownership interests can exist in a closely held company. Provide some examples of other levels of ownership.

ANSWER: 100 percent ownership

Less than 100 percent ownership but greater than majority

Majority interest Operating control

Two 50 percent interests

Largest minority block of stock

Minority with swing vote

Minority can elect board member Pure minority (no control rights).

Each of these may have a different discount for lack of control and/or lack of marketability/liquidity.

EXERCISE 81 A discount for lack of marketability/liquidity should be applied to all of the valuation methods used in the valuation of National Fastener.

- a. True
- b. False

ANSWER: b. False

As previously mentioned, the discounted cash flow method, capitalized cash flow method, and the guideline public company method are based on pricing and rate of return data on securities that can be sold with cash received within three days. This option does not exist for National Fastener. As such, a small discount for lack of marketability/liquidity, subjectively derived and based on judgment, may be applied by some analysts. In the application of the transaction databases, the transaction prices already reflect any potential discount for lack of marketability. No discount is applied. A 100 percent control interest may be marketable but it is not liquid.

EXERCISE 82 Which method can be used to correlate and reconcile value?

- a. Straight average of the indications of value
- b. Numerical weights assigned to each of the value indications
- c. Qualitative judgment in selection of value
- d. All of the above

ANSWER: d. All of the above

In correlating and reconciling values, many analysts simply average all of the indications of value. This implies that each method has equal weight, validity, and accuracy. This is seldom the case in a business valuation, including the situation here with National Fastener, in which the guideline company transaction method was given no weight. Other analysts will assign weights to each of the methods, such as 0.5 to the income approach, 0.2 to the guideline public company approach, 0.1 to transactions, and so on. However, this may again imply accuracy that does not exist. Also, applying only a 10 percent weight on a method may be indicating that the method may not be very supportable. In the valuation of National Fastener, the analyst considered each of the methodologies and decided that the discounted cash flow method under the income approach and the guideline public company method under the market approach were the most relevant.

2.1 ADDENDUM: DISCOUNT CASE STUDY EXERCISES

EXERCISE A Assume that we are determining the fair market value of a minority nonmarketable interest in a company for gift tax purposes. The minority marketable value derived by various methods is \$100 per share. We are in a state where you need over 50 percent for full control. What is the relative discount for lack of marketability (DLOM) in these situations?

- a. Value of a 10 percent interest with one 90 percent owner
- b. Value of a 10 percent interest with nine other 10 percent owners
- c. Value of a 50 percent interest with one other 50 percent owner
- d. Value of a 33.33 percent interest with two other 33.33 percent owners
- e. Value of a 2 percent interest with two 49 percent owners

ANSWER: a. This is a typical minority ownership with very few rights. The 90 percent owner has full control, and, absent any shareholder oppression or dissenting rights issues, can pretty much do what she wants concerning the direction of the company, including selling the company and distributions. The 10 percent owner is almost completely at the mercy of the 90 percent owner.

- b. This is a much better situation than *a*, since no one has control. A 10 percent owner would need to team up with five other owners to control the company. As such, they have more potential for influence than the situation in *a*.
- c. In owning a 50 percent interest with one other 50 percent owner, each owner possesses veto power. Although neither owner can do anything without agreement of the other owner, a single owner can veto anything the other owner does. This is a better situation than in *a* or *b*. A discount for lack of control and marketability would still be applicable, but not as great as in *a* and *b*.
- d. In this situation, there is more ability to influence the company since a one-third owner would only have to team up with another one-third owner. There is some risk that two one-third owners could collaborate on the direction of the company.
- e. This is the classic situation of swing value. Each one of the owners may be willing to couple with the 2 percent owner to direct the company. However, there are many situations where there are two major owners of a company with a small minority share where the two major owners collaborate. This may not necessarily be to the benefit of the small minority owner. The value of a 2 percent interest may go up when the two 49 percent owners are in a dispute.

EXERCISE B Again, assume we are determining the fair market value of a company for gift tax purposes. In this case study, we are valuing a 100 percent controlling interest on a standalone basis in a closely held company. What is the discount for lack of marketability/liquidity in these situations where the prediscount value is determined by using:

- a. P/E ratios from control transactions information (i.e., Pratt's Stats)
- b. P/E ratios from guideline public companies
- c. Discounted cash flow (DCF) with a discount rate determined using Duff & Phelps information
- d. Capitalized cash flow method
- e. Asset approach
- **ANSWER:** a. Many analysts believe that the application of control transaction information results in a value that already reflects the marketability of the company. This is because most control transactions are of private companies.
- b. Some analysts believe that when using P/E ratios from public companies, the marketability and liquidity of the public company stocks are inherent in the multiples when applied to a private company. That level of liquidity does not exist, even for a 100 percent interest. In those situations, some analysts will take a discount for lack of marketability based on the DLOM studies for minority interests, which are then reduced based on judgment.
- c. This is similar to *b*. Since the discount rate is determined using Duff & Phelps information based on publicly traded company rates of return, they too, reflect much greater marketability and liquidity than exists in a 100 percent controlling interest in a private company. Some analysts believe that some level of discount may be appropriate based on judgment.
- d. Same situation for capitalized cash flow as for DCF when using Duff & Phelps information.
- e. When valuing a company through an asset approach, the marketability of the asset is included in the individual values of those assets. A discount for lack of marketability may be appropriate, since selling an entire company may be more difficult than selling individual assets. Some analysts will apply some level of discount, again usually based on DLOM studies based on minority interests reduced for the 100 percent controlling interest being valued.

Financial Valuation Applications and Models Companion Exercises and Test Questions

This chapter comprises exercise and test questions taken from the book *Financial Valuation Applications and Models*, 4th edition. You should read the book, answer the questions, and then proceed to the Answer Grid of this chapter. Good luck! The reader should note that questions are grouped according to chapter and similar subject matter but do not necessarily follow the chapter order of *FVAM*.

3.1 CHAPTER 1: INTRODUCTION TO FINANCIAL VALUATION

- 1. Which of the following is/are a purpose of a valuation?
 - a. Income tax
 - b. Divorce
 - c. Corporate planning
 - d. Litigation
 - e. Going concern value
 - f. Fair market value
- 2. Which of the following is/are considered a type of interest in a business that can be valued?
 - a. 100 percent control
 - b. 50 percent interest with one other 50 percent owner
 - c. Minority
 - d. Majority without control
 - e. Minority with control

3.	Articles of incorporation and bylaws are seldom useful in determining value. a. True b. False
4.	Name the five organizations that have adopted the <i>International Glossary of Business Valuation Terms</i> .
	1
	2
	3
	4
	5.
5.	Relying on the wrong standard of value can result in a very different value. a. True b. False
6.	Which of the following is/are considered standards of value? a. Investment value b. Actual value c. Intrinsic value d. Going concern value e. Fair market value f. Fair value (state rights) g. Fair value (financial reporting) h. Liquidation value
7.	Treasury regulations and Revenue Rulings define fair market value. a. True b. False
8.	Which of the following is/are components of the fair market value definition? a. Willing buyer b. Most probable price c. Not under compulsion d. Control e. Willing seller f. Knowledge of relevant facts g. Normalization adjustments h. Lack of marketability
9.	Fair market value is the standard of value in divorce. a. True b. False
10.	Investment value is the value: a. To a particular investor b. To a hypothetical investor c. In the marketplace d. In tax valuations

- 11. ASC 820 requires which standard of value?
 - a. Fair market value
 - b. Fair value (financial reporting)
 - c. Fair value (state rights)
 - d. Investment value
- 12. All states have the same definition of fair value (state rights).
 - a. True
 - b. False
- 13. The SEC sets the standard of value for financial reporting.
 - a. True
 - b. False
- 14. Which of the following statements is/are true?
 - a. Fair value (financial reporting) assumes a hypothetical buyer and seller.
 - b. Fair market value assumes a hypothetical buyer and seller.
 - c. Fair value (state rights) assumes a hypothetical buyer and seller.
- 15. Investment value always assumes that the investor has control.
 - a. True
 - b. False
- 16. Which of the following is/are considered a premise of value?
 - a. Intrinsic value
 - b. Going concern value
 - c. Orderly liquidation value
 - d. Depreciated value
 - e. Fair market value
 - f. Fair value
 - g. Forced liquidation value
- 17. The intangible elements that result from factors such as having a trained workforce, an operational plant, and the necessary licenses, systems, and procedures in place is/are considered in what premises of value?
 - a. Fair value (financial reporting)
 - b. Fair market value
 - c. Orderly liquidation value
 - d. Going concern value
- 18. Investment value and intrinsic value are the same.
 - a. True
 - b. False
- 19. Forced liquidation value assumes an instant sale on the date of the valuation.
 - a. True
 - b. False
- 20. Which of the following statements is/are true?
 - a. Price and cost equal value.
 - b. Value is based on what a business's profits and cash flows are historically.
 - c. Value is forward-looking, so a discounted cash flow method using expected projected cash flows must be used.

- 21. The valuation date is/are which of the following?
 - a. The date the report is signed.
 - b. The date the analysis is finished.
 - c. The effective date of the valuation.
 - d. The date the report is sent to the client.
- 22. Which of the following is/are approaches to value?
 - a. Guideline public company
 - b. Transactions
 - c. Discounted cash flow
 - d. Capitalized cash flow
 - e. Excess cash flow
 - f. Income
 - g. Market
 - h. Asset
- 23. Which of the following statements is/are true?
 - a. All valuation approaches must be considered.
 - b. All valuation approaches must be applied.
 - c. All valuation methods must be applied.
 - d. Indications of value should be averaged.
 - e. There are four main approaches to value.
- 24. The income approach is always the preferred approach in valuing a business.
 - a. True
 - b. False
- 25. In valuing a business, most analysts agree that only facts known or knowable at the valuation date should be considered.
 - a. True
 - b. False

3.2 CHAPTER 2: STANDARDS OF VALUE

- 1. Which of the following are standards of value?
 - a. Fair market value
 - b. Subsequent value
 - c. Fair value (financial reporting)
 - d. Fair value (state rights)
 - e. Fair value (federal)
 - f. Intrinsic value
 - g. Investment value
- 2. Standards of value and premises of value are the same.
 - a. True
 - b. False

- 3. The standard of value for estate and gift tax is fair market value.
 - a. True
 - b. False
- The standard of value has no influence on the consideration and application of discounts.
 - a. True
 - b. False
- 5. Which of the following are general premises of value?
 - a. Value in exchange
 - b. Personal goodwill value
 - c. Value to the holder
 - d. Highest and best use value
- 6. Which of the following are operational premises of value?
 - a. Practice goodwill value
 - b. Value in the most likely market
 - c. Going concern value
 - d. Liquidation value
- 7. Most states do not recognize discounts in fair value cases.
 - a. True
 - b. False
- 8. Fair value for financial reporting is an entry value.
 - a. True
 - b. False
- 9. The standard of value in divorce is determined state by state.
 - a. True
 - b. False
- 10. Shareholder agreements should never be considered in a valuation for tax purposes.
 - a. True
 - b. False

3.3 CHAPTER 3: RESEARCH AND ITS PRESENTATION

- 1. Which of the following statements concerning research is/are true?
 - a. Analysts should start with a plan.
 - b. 10-Ks of public companies are good sources of industry information.
 - c. The author and publisher of information are not important as long as the information is good.
 - d. Trade associations are poor sources of information since they are biased.

a. Trueb. False

2.	Name five business financial databases that are sources of information for valuations.			
	1			
	2			
	3.			
	4			
	5.			
3.	Which of the following is/are external factors that can affect value? a. Interest rates b. Inflation c. Management competence d. Product or service diversification e. Technological changes f. Dependence on natural resources g. Inventory controls			
	h. Legislation			
4.	The Federal Reserve's <i>Beige Book</i> contains economic information through reports from interviews with key business professionals, economists, and market experts. a. True b. False			
5.	Which of the following is/are important considerations in industry research? a. Growth prospects b. Dominant economic traits c. Competitive forces d. Potential market changes e. Profitability f. Regulations			
6.	Which of the following is/are sources for transaction information? a. Pratt's Stats b. Public company 10-Ks c. RMA d. Bizcomps e. DoneDeals f. Federal Reserve System g. Integra h. IBA i. Mergerstat Review			
7.	EDGAR stands for Electronic Disclosure Government Analysis and Retrieval.			

- 8. Which of the following statements concerning EDGAR is/are true?
 - a. Contains information on thousands of companies.
 - b. Includes more private companies than public companies.
 - c. Established by the Department of Justice.
 - d. All eligible companies must file on EDGAR unless they receive a hardship exemption.
- 9. Industry and economic research is informative but is seldom relied on in actually supporting values.
 - a. True
 - b. False
- 10. A canned management questionnaire should not be used in a valuation.
 - a. True
 - b. False

3.4 CHAPTER 4: FINANCIAL STATEMENT AND COMPANY RISK ANALYSIS

- 1. Which of the following is/are considered elements of valuation analysis?
 - a. An estimate of the amount of future economic benefit
 - b. Assessment of risk
 - c. An assessment of the probability that projected future economic benefits will be realized
- 2. Which of the following is/are steps in financial statement analysis?
 - a. Industry comparisons
 - b. Ratios
 - c. Common sizing
 - d. Spreading
 - e. Normalizing
 - f. Key person discount
 - g. Marketability discount
 - h. Identifying guideline companies
- 3. Only audited statements can be relied on in a valuation.
 - a. True
 - b. False
- 4. CPA analysts must take responsibility for the financial statements relied on in a valuation even if they did not prepare them.
 - a. True
 - b. False
- 5. Analysts should spread five years of historical financial statements.
 - a. True
 - b. False

- 6. Which of the following statements concerning financial statement adjustments is/are true?
 - a. Historical statements are used to help predict future performance.
 - b. Historical statements should not be adjusted to cash flow if they are GAAP statements.
 - c. Historical statements help analysts understand a company but are not helpful in projecting future performance.
 - d. Adjustments are made to better reflect true operating performance.
 - e. Historical statement analysis should enable a company to be compared to prior performance.
 - f. Historical statement analysis should enable a company to be compared to industry peer data.
- 7. Which of the following is/are considered normalization adjustments?
 - a. Unusual items
 - b. Lack of marketability
 - c. Nonoperating assets
 - d. Control
 - e. Nonconformance with GAAP
 - f. Extraordinary items
 - g. Change in accounting principles
 - h. Nonrecurring items
- 8. Which of the following is/are considered unusual, nonrecurring, or extraordinary items?
 - a. Gain or loss on a sale of a business unit or assets
 - b. Losses
 - c. High profits
 - d. Interest income on operating cash
 - e. Capital expenditures exceeding depreciation in any one year
- 9. Which of the following is/are typical nonoperating assets?
 - a. Excess compensation
 - b. Boat
 - c. Condo
 - d. Excess working capital
 - e. Raw land not currently used
 - f. Art
 - g. Excess cash
 - h. Planes
 - i. Autos used in the business
 - j. Antiques
 - k. Cash reserves for bonding
- 10. Changing from LIFO to FIFO is normal so it is not considered a change in accounting principles.
 - a. True
 - b. False

- 11. The Gross, Heck, Adams, Dallas, Wall, and Gallagher tax court cases opined that:
 - a. You tax-affect S corporations.
 - b. You do not tax-affect S corporations.
 - c. Facts and circumstances dictate whether you tax-affect S corporations or not.
 - d. You tax-affect S corporations because the IRS Appeals Manual says to do so.
- 12. A change to a company's capital structure is considered a control adjustment.
 - a. True
 - b. False
- 13. Which of the following is/are true concerning common-sizing normalized financial statements?
 - a. They provide insight into a company's historical operating performance.
 - b. They facilitate an assessment of relationships between and among certain accounts.
 - c. They identify trends or unusual items.
 - d. They can be used to make comparisons to public companies or industry data.
- 14. Review Exhibits 4.4 through 4.9 and comment on any perceived trends for Ale's. Also, review these schedules and comment on any factors that may need to be considered in a valuation of Ale's.
- 15. Which of the following statements is/are true regarding financial ratios and ratio analysis?
 - a. They are the most commonly used tools in financial analysis.
 - b. They do little to help us understand the future prospects of a company.
 - c. They include such groupings of ratios as liquidity, performance, profitability, leverage, and growth.
 - d. They provide a quantitative method for calculating rates of return.
 - e. Risk Management Association (RMA) calculates ratios based on year-end versus average beginning- and ending-year balances.
 - f. Time series analysis compares a specified company's ratios to other companies or industry benchmarks.
 - g. Cross-sectional analysis compares a company's ratios over a specified historical time period.
- 16. It doesn't matter whether you compare year-end ratios with information based on average beginning- and ending-year data.
 - a. True
 - b. False
- 17. Analysts should be familiar with how benchmark industry ratios are calculated, their scope, as well as limitations in the data.
 - a. True
 - b. False
- 18. Review Exhibits 4.10 through 4.12 and comment on any perceived trends for Ale's. Also, review these schedules and comment on any factors that may need to be considered in a valuation of Ale's.

- 19. Which of the following is/are considered specific company risk assessment models or analyses?
 - a. Porter
 - b. McKinsey 7-S
 - c. Macro-environmental
 - d. SWOT
 - e. Normalization
 - f. Ibbotson
 - g. Mergerstat Review
 - h. RMA
- 20. The DuPont model considers which factors?
 - a. Current ratio
 - b. Working capital turnover
 - c. Growth
 - d. Profit margins
 - e. Asset turnover
 - f. Leverage

3.5 CHAPTER 5: INCOME APPROACH

- 1. The income approach is probably the most widely recognized approach in business valuation.
 - a. True
 - b. False
- 2. An investment in the equity of a company will compensate the investor for which of the following factors?
 - a. The time the funds are committed
 - b. Inflation
 - c. Uncertainty
 - d. Risk
 - e. The time value of money
- 3. The income approach has a numerator and a denominator.
 - a. True
 - b. False
- 4. Which of the following statements is/are true concerning the income approach?
 - a. It is forward looking.
 - b. Value is equal to future cash flow discounted at the opportunity cost of capital.
 - c. Economic benefit is always cash flow.

e. Net cash flow is net income after tax plus depreciation.

5. Name the three income approach methods.

b. False

d. Investor expectations include the real rate of return, inflation, and risk.

	1,
	2
	3
6.	The excess cash flow method is a hybrid of both the income approach and the asset approach. a. True b. False
7.	CPA analysts must attest to and verify any financial information they rely on. a. True b. False
8.	Normalizing adjustments result in a control value when using the income approach. a. True b. False
9.	Which of the following categories is/are considered normalizing adjustments in the income approach? a. Ownership characteristics b. Taxes c. Marketability d. Key person e. Extraordinary, nonrecurring, and unusual items f. Nonoperating assets and liabilities g. Synergies, if applicable h. Trapped capital gains taxes i. Information access and reliability
10.	Which of the following, when applicable, is/are considered control adjustments? a. Excess fringe benefits b. Nonbusiness expenses c. Related-party transactions at arm's length d. Purchases from a sister company owned by the same person at prices that were negotiated at arm's length e. Perquisites
11.	The discount rate determines whether the application of the income approach results in a minority or control value. a. True b. False
12.	Normalization adjustments are typically made pre-tax. a. True

13.	Which of the following is/are examples of potential nonoperating assets? a. Plane
	b. Boat
	c. Expensive cars
	d. Adjacent vacant land with no plans for future use e. Unsold and unused excess plant facilities
14.	There is no adjustment to the income statement for unused raw land since it does not produce income. a. True b. False
15.	Fair market value should always include synergistic value. a. True b. False
16.	In many small companies, income and cash flow are the same or similar. a. True b. False
17.	Only cash flow can be discounted or capitalized in the income approach. a. True b. False
18.	Concerning net cash flow, which of the following statements is/are true?a. It is the most common measure of future economic benefit.b. It is equivalent to dividends or distributions paid.c. It is the measure that most rate-of-return data are based on.d. It should be used only in the direct equity method, not the invested capital method.
19	List the six components of net cash flow to equity.
1).	
	1
	2
	3
	4
	5
	6,
20.	Net cash flow direct to equity is a debt-inclusive model. a. True b. False
21.	List the five components of net cash flow to invested capital.
•	1
	2.

	3
	4.
	5
22.	Net cash flows to invested capital include interest expense and debt principal. a. True b. False
23.	List the five most common methodologies by which to estimate future economic benefits from historical data.
	1
	2
	3
	4
	5.
24.	Company A has the following historical normalized cash flows: 20X5 (most recent year) \$500,000; 20X4 \$480,000; 20X3 \$400,000; 20X2 \$200,000; 20X1 \$380,000. Calculate the simple average, a weighted average, and the trend line static method. Which result gives the best indication of anticipated future cash flows? Explain your answer. a. Simple average b. Weighted average c. Trend line static method d. Current cash flow Best indication explanation:
25.	Discounted cash flow (DCF) models should use five years of projections. a. True b. False
26.	In a DCF model, the period beyond the projected discrete period is called the explicit period.

27. Which of the following statements concerning DCF models is/are true?

year convention is generally preferred.

a. For companies that have fairly even cash flows throughout the year, the mid-

a. True b. False

- b. Some analysts believe that the end-of-year convention better reflects when dividends/distributions are paid.
- c. The midyear convention may not be as applicable in a seasonable business.
- d. The midyear convention generally results in a value similar to discounting monthly cash flows.
- 28. The terminal value in a DCF model is often the majority of the value.
 - a. True
 - b. False
- 29. The Gordon Growth Model can be used in a capitalized cash flow (CCF) model or a DCF model.
 - a. True
 - b. False
- 30. Which of the following statements is/are true regarding the excess cash flow model?
 - a. The return on net tangible assets should be the debt rate after tax.
 - b. Revenue Ruling 68-609 states that the excess earnings method should always be used in valuing a business.
 - c. There is no direct method for determining the cap rate to capitalize excess cash flow into intangible asset/goodwill value.
 - d. The cap rate developed in the capitalized cash flow method can be used to check the values and returns in the excess cash flow method.

3.6 CHAPTER 6: COST OF CAPITAL

- 1. The cost of capital is an expected rate of return that the market requires to attract funds to a particular investment.
 - a. True
 - b. False
- 2. The cost of capital depends on the investor, not the investment.
 - a. True
 - b. False
- 3. Which of the following statements concerning cost of capital is/are true?
 - a. It is an opportunity cost.
 - b. It involves the principle of substitution.
 - c. It is investor-driven.
 - d. It is market-driven.
 - e. It includes risk.
 - f. It includes a real rate of return.
 - g. It excludes inflation.
 - h. Cost of capital equals discount rate.
 - i. It equals expected rate of return, which is expected dividends/distributions plus expected capital appreciation.

- 4. Which of the following is/are cost of capital methods?
 - a. Build-up model
 - b. Modified capital asset pricing model
 - c. Capital asset pricing model
 - d. Weighted average cost of capital
 - e. Price to earnings
 - f. Excess earnings
 - g. Specific company risk
- 5. Discount rate equals capitalization rate plus growth.
 - a. True
 - b. False
- 6. Long-term growth rates are used in both the DCF and CCF models.
 - a. True
 - b. False
- 7. Which of the following factors is/are typically considered in determining growth rates?
 - a. Subject company historical growth
 - b. Subject company projected growth as prepared by management
 - c. Industry growth
 - d. Inflation
 - e. Gross domestic product
 - f. Analyst judgment
- 8. Which of the following factors is/are considered a risk category in the cost of capital?
 - a. Maturity risk
 - b. Lack of marketability
 - c. Minority
 - d. Systematic
 - e. Unsystematic
- 9. Systematic risk can be captured by beta.
 - a. True
 - b. False
- 10. Investors cannot diversify unsystematic risk away.
 - a. True
 - b. False
- 11. The calculation of unsystematic risk involves judgment.
 - a. True
 - b. False
- 12. Which of the following factors is/are primary sources of unsystematic risk?
 - Size
 - b. Lack of marketability
 - c. Minority
 - d. Industry (nonbeta)
 - e. Specific company attributes

13.	Which of the following resources is/are sources of size equity risk premiums for a discount rate? a. Mergerstat Review b. Duff & Phelps c. Emory d. FMV Opinions
14.	Which of the following is/are considered macro-environmental forces? a. Economic b. Technological c. Company strengths d. Company weaknesses e. Company opportunities f. Company threats g. Sociocultural h. Demographic i. International j. Political
15.	Name the five main industry-related risk factors according to Michael E. Porter. a. Threat of new entrants b. Bargaining power of suppliers c. Bargaining power of customers d. Company strengths e. Industry strengths f. Threat of substitutes g. Company threats h. Rivalry among existing firms
16.	Which of the following factors is/are considered potential risks particular to a small business? a. Key person b. Thin management c. Access to financing d. Industry e. Economic f. Lack of marketability g. Minority h. Lack of diversification
17.	List the four components of a build-up model for computing equity returns for a small private company. Include the formula inputs and the actual name. Exclude the industry risk premium.

- 18. The risk-free rate is typically based on a 10-year U.S. Treasury bond.
 - a. True
 - b. False
- 19. Which of the following size premiums and/or type of data can be considered based solely on Duff & Phelps information?
 - a. Micro-cap NYSE and equivalent ASE and NASDAQ companies
 - b. 10th-decile NYSE and equivalent ASE and NASDAQ companies
 - c. 10A NYSE and equivalent ASE and NASDAQ companies
 - d. 10B NYSE and equivalent ASE and NASDAQ companies
 - e. In excess of CAPM with a OLS beta
 - f. In excess of CAPM with an annual beta
 - g. In excess of CAPM with sum beta
 - h. Average return on the market (large stocks) minus the average return on micro-cap stocks since 1926
- 20. Some analysts include the Duff & Phelps industry risk premium in the modified CAPM but not the build-up model.
 - a. True
 - b. False
- 21. Duff & Phelps data can be used to directly determine specific company risk.
 - a. True
 - b. False
- 22. Which of the following statements concerning Duff & Phelps data is/are the general position of Duff & Phelps concerning its data?
 - a. It is based on after-tax cash flows from the entities.
 - b. It represents discount and capitalization rates as-if publicly traded.
 - c. Discount rates are neutral as to minority or control.
 - d. It is based on earnings returns.
 - e. Industry risk premiums can be used in MCAPM but not CAPM.
- 23. Theoretically, all securities would fall on the securities market line and the return reflects risk (beta).
 - a. True
 - b. False
- 24. Which two components is/are in the MCAPM but not the CAPM?

	1
	2.
25.	What is the only difference between MCAPM and build-up?

- 26. All betas are calculated the same so it doesn't matter which source of betas you use.
 - a. True
 - b. False

- 27. Given the formula for unlevering a beta (Bu) and using the following information, calculate the levered beta for the subject company.
 - From guideline public company data:
 - Levered beta is 1.4.
 - Tax rate is 40 percent.
 - Market value capital structure is 35 percent debt, 65 percent equity.
 - For the subject company:
 - Tax rate is 36 percent.
 - Market value capital structure is 20 percent debt, 80 percent equity.
 - Bu = Bl / $[1 + (1 t) (W_d/W_e)]$.
- 28. Given the following information, calculate the weighted average cost of capital (WACC) for the subject company.

 $W_d = 30$ percent

 $W_e = 70$ percent

 $R_f = 6$ percent

 $RP_m = 7$ percent

 $RP_s = 6$ percent

 $RP_c = 3$ percent

Relevered beta = 1.2

Tax rate = 40 percent

 K_d (pre-tax) = 8 percent

- 29. Which of the following factors concerning the price-to-earnings (P/E) method is/ are true?
 - a. It is based on public company multiples.
 - b. It is pre-tax.
 - c. When inverted, the P/E ratio is a capitalization rate.
 - d. The capitalization rate is an earnings rate, not a cash flow rate.
 - e. It includes assumptions of growth.
- 30. Which of the following statements concerning the Duff & Phelps Risk Premium Report portfolios data is/are true?
 - a. It includes eight different measures of size.
 - b. It allows for 25 magnitudes of size for the companies in the data.
 - c. It includes both public and private company data.
 - d. It goes back to 1963, not 1926 like CRSP data (previously published by Ibbotson).
 - e. It includes risk measures including operating margin, coefficient of variation in operating margin, and coefficient of variation of return on equity.

3.7 CHAPTER 7: INTERNATIONAL COST OF CAPITAL

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3.8 CHAPTER 8: MARKET APPROACH

- 1. The use of statistics in valuation replaces qualitative judgment.
 - a. True
 - b. False
- 2. Statistics can be used in the following areas of valuation:
 - a. Calculation of market multiples of public companies
 - b. Picking market multiples of public companies
 - c. Determining the effect of one variable on another variable
 - d. Determining averages
- 3. Which of the following is/are considered an average?
 - a. Mean
 - b. Mode
 - c. Median
 - d. Correlation
 - e. Regression
 - f. R squared
 - g. Harmonic mean
- 4. Which of the following statements is/are true?
 - Correlation analysis summarizes the strength of the relationship between factors.
 - b. Correlation coefficients (r) are between 0 and 1.
 - c. An (r) of 0 denotes no relationship.
 - d. Regression analysis (linear) shows how to predict one of the variables using the other one.
 - e. Coefficient of determination says how much of the variability of Y is explained by X.
 - f. R squared stands for regression analysis.
 - g. Harmonic mean is a straight average.
- 5. Guideline companies generally have the following traits in the market approach:
 - a. They are in the same or similar industry.
 - b. They are the same in size.
 - c. They should not be more than 10 times the revenue size of the subject company.
 - d. They should have similar capital structures.
 - e. They should have similar profit margins.
 - f. They must be publicly traded.
 - g. Sufficient information should exist for the guideline company for it to be used as a primary value indicator.

- 6. Which of the following is/are market approach methods?
 - a. Guideline public companies
 - b. Guideline company transactions
 - c. Excess earnings
 - d. Rules of thumb
 - e. Subject company transactions
 - f. Subject company acquisitions
- 7. Guideline company transactions are control values.
 - a. True
 - b. False
- 8. The application of the guideline public company method results only in a control value.
 - a. True
 - b. False
- 9. Which of the following statements is/are true concerning the guideline company transaction method?
 - a. It results in a nonmarketable value.
 - b. It results in a liquid value.
 - c. It results in an illiquid value.
 - d. The result is a value assuming the marketability of the guideline companies that were acquired.
- 10. Which of the following statements is/are true concerning the guideline public company method?
 - a. It results in a marketable value.
 - b. It results in a nonmarketable value.
 - c. It may result in a liquid value.
 - d. It results in an illiquid value.
 - e. The result is a value assuming the marketability of the guideline public companies' stock.
- 11. The application of the market approach includes intangible assets and goodwill to the extent they exist.
 - a. True
 - b. False
- 12. The market approach is forward looking.
 - a. True
 - b. False
- 13. The price of a public company stock includes anticipated growth.
 - a. True
 - b. False
- 14. Name five major sources of transaction data.

1.	
2	
۷.	

3.	
4. .	
5.	

- 15. Which of the following statements is/are true concerning the guideline company transaction method?
 - a. It generally relies on full disclosure of details about the transactions.
 - b. It can include acquisitions of both public and private companies.
 - c. Only P/E multiples are valid.
 - d. Noncompete agreements are excluded.
 - e. All the expenses are normalized.
 - f. It is important to distinguish whether the transaction is an asset or stock deal.
- 16. The guideline company transaction method is generally (and relatively) a better method than the guideline public company method when valuing very small businesses.
 - a. True
 - b. False
- 17. You should always consider the guideline public company method when valuing any company.
 - a. True
 - b. False
- 18. The level of detailed information is the same for the guideline public company method and the guideline company transaction method.
 - a. True
 - b. False
- 19. Which of the following statements concerning the guideline public company method is/are correct?
 - a. The prices of the stocks should be on or near the valuation date.
 - b. The financial statement data of the public companies must match the date of the stock prices.
 - c. Only audited statements of the public companies should be used.
- 20. 10-Ks and 10-Qs of public companies are audited.
 - a. True
 - b. False
- 21. Which of the following statements is/are true concerning the selection process for guideline public companies?
 - a. Management of the subject company is often a good source for companies.
 - b. Management often thinks its company is unique.
 - c. If a small division of a diversified public company is the only part of that public company that is similar to the subject company, it should be used as a guideline company.
 - d. Industry publications and websites can be good sources for potential guideline companies.
 - e. After industry similarities, size is often the next most important selection criterion.

22.	Low volume and/or infrequent trades may indicate that a public company's stock price may not be indicative of value. a. True b. False
23.	It is better to have a larger number of guideline public companies that are only somewhat similar than a small number that are more similar. a. True b. False c. Based on facts and circumstances
24.	Based on examination of Exhibits 8.1 and 8.2, determine the comparability of the subject company to the guideline public companies. Assume all are similar in terms of the industry. Decide how you would apply multiples based on these comparisons: specific companies, mean, median, percentiles, averages with fundamental discount, and so on. Write your comments in the following space.
25.	Which of the following financial information periods can be used in calculating guideline public company multiples? a. Trailing four quarters b. Most recent fiscal year end
	c. Three-year average
	d. Five-year average e. One-year forecast
26	
26.	List the two main numerators for deriving market multiples:
	1
	2
27.	Which of the following multiples is/are correct?
	a. MVEq/net income after tax
	b. MVEq/pre-tax income c. MVIC/net income after tax
	d. MVIC/pre-tax income
	e. MVEq/book value of equity
	f. MVIC/EBITDA
	g. MVIC/EBIT

28. Rules of thumb are often a primary method for determining value.

i. MVIC/debt-free net income after tax

a. True

h. MVIC/revenue

b. False

29.	Negative	multiples	s should	be re	lied on.

- a. True
- b. False

30.	Based on your comparisons from Exhibit 8.1, choose multiples and values for
	the subject company based on the multiples presented in Exhibits 8.2 and 8.3
	Again, assume all the guideline companies are equally similar based on the
	industry. Write your results in the following space.

3.9 CHAPTER 9: ASSET APPROACH

- 1. Which of the following statements is/are true concerning the asset approach?
 - a. Book value equals fair market value.
 - b. Book value balance sheets are often the starting point for the asset approach.
 - c. The asset approach does not include intangible assets.
 - d. Book value seldom equals fair market value.
- 2. Some asset book values on the balance sheet are often similar to fair market value.
 - a. True
 - b. False
- 3. Unless purchased as part of a transaction, intangible assets are usually not on the books.
 - a. True
 - b. False
- 4. Which of the following statements concerning the asset approach is/are true?
 - a. The asset approach should be considered in every business valuation.
 - b. The asset approach is more commonly applied in valuing operating companies that sell products and/or services.
 - c. The asset approach is more commonly used in valuations for purchase price allocations for financial reporting purposes.
 - d. The book value of real estate is usually pretty close to fair market value.
 - e. The asset approach is sometimes used in valuing very small companies and/or professional practices where there is little or no company or practice intangible assets and goodwill value.
 - f. When valuing a business, valuing intangible assets in an operating company is common and provides increased accuracy for the valuation conclusion.

- 5. Revenue Ruling 59-60 ignores the asset approach.
 - a. True
 - b. False
- 6. Control and minority issues are not a concern in applying the asset approach.
 - a. True
 - b. False
- 7. Notes to financial statements can contain useful information about contingent liabilities.
 - a. True
 - b. False
- 8. Which of the following statements is/are true concerning real estate and equipment appraisal?
 - a. Market value equals fair market value in real estate appraisal.
 - b. The income approach is often used in real estate but not equipment appraisal.
 - c. The cost approach is the most common approach in real estate appraisal.
- 9. As in business valuation, there are three approaches to value for real estate and equipment appraisal.
 - a. True
 - b. False
- 10. Economic obsolescence reflects the fact that an asset is not earning a required rate of return.
 - a. True
 - b. False

3.10 CHAPTER 10: VALUATION DISCOUNTS AND PREMIUMS

- 1. The two main discounts are the discount for lack of marketability (DLOM) and the discount for lack of control (DLOC).
 - a. True
 - b. False
- 2. The DLOC and the minority discount are the same.
 - a. True
 - b. False
- 3. When applying the DLOM and the DLOC, you should add them together and then apply the aggregated discount.
 - a. True
 - b. False

- 4. General benchmark DLOCs are derived from control premium studies.
 - a. True
 - b. False
- 5. Which of the following statements is/are true concerning discounts and premiums?
 - a. They are either entity-level or shareholder-level.
 - b. They must all be applied sequentially.
 - c. DLOMs and DLOCs are applied to all valuation methods.
- 6. Control premiums:
 - a. Are based on public company acquisitions.
 - b. Include synergistic or strategic premiums when present.
 - c. Quantify the value of controlling the destiny of a company.
- 7. Which of the following statements is/are true?
 - a. Control often means a lesser or no DLOM.
 - b. DLOMs for control and minority are the same since a DLOM only reflects the lack of marketability of the entire company.
 - c. There is no relationship between DLOCs and DLOMs.
- 8. Control adjustments to earnings/cash flow:
 - a. Should be made in every valuation.
 - b. Are often made when valuing a controlling interest.
 - c. Are made before applying a control premium.
- 9. A 50/50 percent ownership arrangement contains which of the following rights?
 - a. Swing vote
 - b. Cumulative voting
 - c. Veto power
 - d. Right of first refusal
- 10. All other things being equal, in the same company, which of the following 25 percent interests is worth relatively less (i.e., would have greater discounts)?
 - a. Four 25 percent interests
 - b. One 25 percent interest with one 75 percent interest
 - c. Two 25 percent interests with one 50 percent interest
 - d. 25 percent interests with no other shareholder holding more than 10 percent
- 11. A greater-than-50-percent interest always gives full control.
 - a. True
 - b. False
- 12. When the interest being valued represents a minority position, nonvoting stock is generally valued slightly less than voting stock.
 - a. True
 - b. False

- 13. General benchmark minority and lack-of-control discounts is/are derived from which of the following sources?
 - a. Court cases
 - b. Mergerstat Review data
 - c. Thin air
 - d. Restricted stock studies
- 14. The formula for calculating a DLOC from control premium data is:
 - a. 1 divided by control premium
 - b. 1 divided by (1 + control premium)
 - c. 1 minus [1 divided by (1 + control premium)]
 - d. (1 divided by control premium) times 100
- 15. *Mergerstat Review* data allow the analyst to segregate the pure control premium and the synergistic/acquisition premium.
 - a. True
 - b. False
- 16. Which of the following valuation methodologies result(s) in a control value where the cash flows have been adjusted for control items?
 - a. Discounted cash flow method
 - b. Guideline company transaction method
 - c. Guideline public company method
 - d. Capitalized cash flow method
- 17. Which of the following statements is/are true?
 - a. Actively traded public stock is marketable.
 - b. Actively traded public stock is liquid.
 - c. Minority stock is marketable.
 - d. Minority stock is liquid.
 - e. 100 percent control is marketable.
 - f. 100 percent control is liquid.
- 18. There is direct empirical evidence supporting a DLOM for a controlling interest.
 - a. True
 - b. False
- 19. Which of the following studies can be relied on when selecting DLOMs?
 - a. Restricted stock
 - b. Quantitative marketability discount model (QMDM)
 - c. Initial public offering
 - d. Emory
 - e. Willamette
 - f. Hitchner
 - g. Revenue Ruling 77-287
 - h. Revenue Ruling 59-60
- 20. Which of the following statements is/are true concerning the Emory studies?
 - a. They include transactions of a company within 12 months of an IPO.
 - b. They include failed IPOs.

- c. They include only stock option transactions.
- d. They are adjusted to reflect the rise or fall of a company's stock price after the
- e. Discounts have typically been in the range of 60 percent to 65 percent.
- 21. Which of the following statements is/are true concerning restricted stock studies?
 - a. They include only publicly traded companies.

	b. They are based on control transactions of a company's stock.c. Stocks are restricted for two years in all the studies.d. Recent studies have resulted in lower average discounts.
22.	Name four option-pricing models for computing a DLOM?
	1
	2
	3
	4
23.	Which of the following factors is/are considered in the QMDM? a. Control value of the stock b. Expected holding period c. Required rate of return over the holding period d. Expected dividend payments
24.	Name at least five factors that can affect the marketability of a minority interest in a private business.
	1
	2
	3
	4
	5
25.	Which of the following tax court cases is/are famous for the method used to select a DLOM? a. Branson b. Mandelbaum

- - b. Mandelbaum
 - c. Sheffield
 - d. Weinberger
- 26. Some discounts are applied after the prediscount value is determined, and some are incorporated into the cost of capital in the income approach or the multiples in the market approach.
 - a. True
 - b. False

- 27. Which of the following is/are discounts or affect discounts that can be considered in a valuation?
 - a. Key person
 - b. Restrictive agreement language
 - c. Information access and reliability problems
 - d. Trapped capital gains
 - e. Blockage
 - f. Market absorption
 - g. Small company
 - h. Lack of diversification
- 28. It is generally acceptable to take the average of various DLOM studies and apply that average to the subject company.
 - a. True
 - b. False
- 29. Dr. Mukesh Bajaj et al. have provided further support for the typical averages in the IPO and restricted stock DLOM studies.
 - a. True
 - b. False
- 30. A private company that pays substantial dividends/distributions would generally have a lesser DLOM than the same company that pays little or no dividends/ distributions.
 - a. True
 - b. False

3.11 CHAPTER 11: REPORT WRITING

- 1. Reports must be prepared for every valuation.
 - a. True
 - b. False
- 2. Reports must contain sufficient detail to allow another qualified analyst to re-create or replicate the work.
 - a. True
 - b. False
- 3. Which of the following factors should be included in a report?
 - a. What the analyst was asked to do
 - b. The fee
 - c. Standard of value
 - d. Information relied on

- e. Names of all people who worked on the engagement
- f. Procedures that were performed
- g. Assumptions and limiting conditions
- h. Conclusion and reconciliation
- 4. Which of the following types of reports is/are allowed by the Uniform Standards of Professional Practice (USPAP) for a business valuation?
 - a. Appraisal report
 - b. Summary appraisal report
 - c. Restricted appraisal report
 - d. Limited appraisal report
 - e. Other appraisal report
- 5. All valuation analysts are required to adhere to the reporting requirements of USPAP in every engagement.
 - a. True
 - b. False
- 6. Outside of USPAP, analysts generally produce two types of reports, complete/detailed and other.
 - a. True
 - b. False
- 7. SSVS VS Section 100 requires reports to contain enough information for the reader to be able to replicate all the information and data and calculations.
 - a. True
 - b. False
- 8. Revenue Ruling 59-60 contains detailed reporting requirements.
 - a. True
 - b. False
- 9. Which of the following factors is/are often considered in the analysis of industry conditions section of a report?
 - a. Identity of the industry
 - b. Description of the industry
 - c. Suppliers
 - d. Government regulations
 - e. Marketability of the companies that make up the industry
 - f. Key person issues
 - g. Risks
- 10. The financial statement analysis should include at least five years of financial statement information.
 - a. True
 - b. False
- 11. Reports should include a quantitative method of reconciling various values derived by different valuation methods.
 - a. True
 - b. False

- 12. Which of the following types of reports is/are allowed in SSVS VS Section 100?
 - a. Valuation engagement—detailed report
 - b. Oral report
 - c. Appraisal report
 - d. Valuation engagement—summary report
 - e. Restricted use report
 - f. Calculation report
- 13. SSVS VS Section 100 dictates how long reports are supposed to be.
 - a. True
 - b. False
- 14. Summary or letter reports should not be relied on by clients.
 - a. True
 - b. False
- 15. Which of the following statements concerning assumptions and limiting conditions is/are true?
 - a. They can reduce the risk to the analyst.
 - b. They inform the reader of what the analyst did and did not do.
 - c. They should not be provided in valuation reports prepared in a litigation setting.

3.12 CHAPTER 12: BUSINESS VALUATION STANDARDS

- 1. Name the four major U.S. associations that grant certifications in valuation:
 - a. AICPA, ASA, IBA, CFA
 - b. AICPA, ASA, CFE, CFA
 - c. AICPA, NACVA, IBA, ASA
 - d. AICPA, IBA, NACVA, CFA
- 2. CPAs are required to follow the Uniform Standards of Professional Practice (USPAP).
 - a. True
 - b. False
- 3. The IRS has recently adopted USPAP.
 - a. True
 - b. False
- 4. The AICPA SSVS VS Section 100 only applies to CPAs who are ABVs.
 - a. True
 - b. False

5.	Which of the following organizations has/have adopted the <i>International Glossary of Business Valuation Terms</i> ? a. AICPA b. AIMR c. NACVA d. IBA e. CICBV f. IRS g. ASA h. Appraisal Foundation
6.	Business valuation appraisers must abide by the specific standards for real estate and personal property in their business valuations. a. True b. False
7.	USPAP Standard Rule 3, Review Appraisal, is applicable only to real estate and personal property appraisers. a. True b. False
8.	 Which of the following statements concerning USPAP is/are true? a. There are 10 standards rules. b. Statements on Appraisal Standards are only for explanatory purposes and do not have the weight of a standards rule. c. Advisory opinions are for explanatory purposes only and do not have the weight of a standards rule. d. Standards 9 and 10 address development and reporting for business valuation. e. The definitions, preamble, ethics rule, record keeping rule, competency rule, scope of work rule, jurisdictional exception rule, and the supplemental standards affect business appraisers.
9.	The IRS has business valuation guidelines. a. True b. False
10.	Name the two types of analyses/engagements covered under SSVS VS Section

3.13 CHAPTER 13: VALUATION OF PASS-THROUGH ENTITIES

100.

3.14 CHAPTER 27D: VALUATION ISSUES IN PREFERRED STOCK

and

3.15 CHAPTER 27E: RESTRICTED STOCK VALUATION

and

3.16 CHAPTER 27G: VALUATION ISSUES RELATED TO STOCK OPTIONS AND OTHER SHARE-BASED COMPENSATION

- 1. The biggest issue in valuing pass-through entities is taxes.
 - a. True
 - b. False
- 2. Which of the following Tax Court cases disallowed the application of taxes at the entity level?
 - a. Gross
 - b. Wall
 - c. Mandelbaum
 - d. Jelke
 - e. Adams
 - f. Heck
 - g. Dallas
- 3. There is still some controversy concerning the application of taxes in control valuations and minority valuations.
 - a. True
 - b. False
- 4. In valuing a pass-through entity, the level of distributions can affect value.
 - a. True
 - b. False
- 5. Valuing a pass-through entity by capitalizing pretax cash flows at a pretax capitalization rate results in an after-tax value.
 - a. True
 - b. False
- 6. Which of the following statements concerning preferred stock is/are true?
 - a. It is a hybrid security.
 - b. Dividend rate is the yield rate.
 - c. It can be cumulative or noncumulative.

- d. If redeemable, it is considered solely as an equity security.
- e. Preferred stock is never voting since it is not common stock.
- f. It can be convertible into common stock.
- g. It can contain put options or features.
- 7. Which of the following Revenue Rulings directly address(es) the valuation of preferred stock?
 - a. 59-60
 - b. 68-609
 - c. 83-120
 - d. 93-12
 - e. 77-287
- 8. Which of the following factors should be considered when valuing preferred stock?
 - a. Yield
 - b. Lack of control
 - c. Lack of marketability
 - d. Dividend coverage
 - e. Liquidation preferences
- 9. Given the following information, calculate the value of the preferred stock using the dividend discount model:

Par value = \$100 Stated rate = \$6

Required yield = 10 percent

- 10. Employee stock options can be incentive stock options or nonqualified stock options.
 - a. True
 - b. False
- 11. Options that can be exercised only on the expiration date are called American options.
 - a. True
 - b. False
- 12. Which of the following statements is/are true concerning stock options?
 - a. Call options give the holder the right to buy the stock.
 - b. Put options give the holder the right to sell the stock.
 - c. Exercise price typically changes over time.
 - d. "In the money" occurs when a call option's strike price is less than the current price of the underlying stock.
 - e. "Out of the money" options can never have value.

13.	Name the two best-known option models.
	1
	2
14.	There is never a distinct discount for lack of marketability of a stock option in a private company. a. True b. False
15.	Which of the following factors is/are considered when applying the Black-Scholes option model? a. Underlying stock price b. Lack of control c. Exercise price d. Volatility e. Time to expiration f. Risk-free rate
16.	Volatility has a significant impact on the value of a stock option. a. True b. False
17.	Binomial models are sometimes referred to as lattice models. a. True b. False
18.	Which of the following Revenue Rulings directly address(es) the valuation of restricted stock? a. $59-60$

- b. 68-609

 - c. 83-120
 - d. 93-12
 - e. 77-287
- 19. Restricted stocks are typically stocks in public companies that are restricted from public trading for a period of time.
 - a. True
 - b. False
- 20. Which of the following statements is/are true concerning restricted stocks?
 - a. All the companies in the restricted stock studies had a two-year holding period.
 - b. Rule 144 restrictions no longer apply.
 - c. Volume limitations under Rule 144 include a restriction that no more than 1.0 percent of the outstanding shares of stock can be sold during any threemonth period.
 - d. Volume limitations under Rule 144 include a restriction that no more than the average weekly market trading volume in such securities during the four calendar weeks preceding a sale of stock can be sold during any three-month period.
 - e. Dribble-out periods should be considered in valuing restricted stock.

3.17 CHAPTER 14: ESTATE, GIFT, AND INCOME TAX VALUATIONS

- 1. Revenue Ruling 59-60 is applicable only to tax valuations.
 - a. True
 - b. False
- 2. Revenue Ruling 59-60 addresses the concept of a key person.
 - a. True
 - b. False
- 3. Which of the following statements is/are included in Revenue Ruling 59-60?
 - a. Use common sense, judgment, and reasonableness.
 - b. Valuation must be based on the facts available at the required date of appraisal.
 - c. Consider at least five years of income statements and two years of balance sheets.
 - d. Valuation of securities is a prophecy as to the future.
 - e. Valuation reflects the degree of optimism or pessimism of investors.
 - f. The appraiser should include subsequent events after the appraisal date.
- 4. Which of the following statements is/are true regarding fair market value for tax purposes?
 - a. Assumes a hypothetical buyer only
 - b. Assumes a hypothetical seller only
 - c. Assumes both a hypothetical buyer and seller
 - d. Assumes specific buyers and sellers
 - e. Assumes the most likely buyer and seller
- 5. Revenue Ruling 59-60 does not address excess compensation and its potential effect on value.
 - a. True
 - b. False
- 6. Which of the following statements concerning Revenue Ruling 59-60 is/are true?
 - a. It requires reliance on historical averages of earnings.
 - b. It is silent concerning intangible assets and goodwill and their value.
 - c. It addresses the concept of control and minority.
 - d. It gives consideration to the value of similar publicly traded company stock.
- 7. Revenue Ruling 59-60 presents standard capitalization rates.
 - a. True
 - b. False
- 8. Name the four main Revenue Rulings in valuation.
 - a. 48-220
 - b. 83-120

- c. 77-287
- d. 98-254
- e. 59-60
- f. 93-12
- g. 69-609
- 9. The IRS has adopted USPAP.
 - a. True
 - b. False
- 10. Which of the following statements concerning the definition of fair market value is/are true?
 - a. Most likely buyer
 - b. Willing buyer
 - c. Willing seller
 - d. Same knowledge of relevant facts
 - e. No compulsion
- 11. Which of the following statements is/are most true regarding court cases?
 - a. They can be used to determine discounts.
 - b. They should not be used to determine discounts.
 - c. They are informative only as to the court's view on discounts.
 - d. They should be quoted in valuation reports.
- 12. Revenue Ruling 59-60 supports the use of the asset approach for valuing investment or holding companies.
 - a. True
 - b. False
- 13. Averaging the values from different methods is endorsed by Revenue Ruling 59-60.
 - a. True
 - b. False
- 14. Which of the following statements is/are true regarding Revenue Ruling 77-287?
 - a. It can be used to determine discounts for lack of marketability for closely held stock.
 - b. It can be used to value restricted stock.
 - c. It can be used to value preferred stock.
 - d. It replaces Revenue Ruling 68-609.
- 15. Revenue Ruling 93-12 addresses family attribution for gift and estate tax.
 - a. True
 - b. False
- 16. What is the single most important court case dealing exclusively with discounts for lack of marketability?
 - a. Lappo
 - b. Mandelbaum
 - c. Jelke
 - d. Perachio

- 17. The IRS has business valuation guidelines.
 - a. True
 - b. False
- 18. Which of the following statements is/are true regarding Revenue Ruling 83-120?
 - a. It expands on Revenue Ruling 59-60.
 - b. It discusses yield, dividend coverage, and liquidation preferences.
 - c. It addresses freeze transactions.
 - d. It applies only to public companies.
 - e. It is no longer relevant with the issuance of Revenue Ruling 93-12.
- 19. The IRS has regulations regarding the valuation of charitable contributions of closely held stock, including a definition of a qualified appraiser.
 - a. True
 - b. False
- 20. Which was one of the first tax court cases to allow a reduction in value due to trapped-in capital gains taxes?
 - a. *Lappo*
 - b. Mandelbaum
 - c. Jelke
 - d. Davis

3.18 CHAPTER 15: VALUATION OF FAMILY LIMITED PARTNERSHIPS

and

3.19 CHAPTER 27B: VALUATION ISSUES IN BUY-SELL AGREEMENTS

- 1. Which of the following statements is/are true concerning family limited partner-ships (FLPs)?
 - a. Discounts can be taken for more than 50 percent limited partner interests.
 - b. Discounts can be taken only for less than 50 percent limited partner interests.
 - c. The general partner interest can never be discounted.
 - d. The partnership agreement is not considered in setting discounts.
 - e. Discounts cannot be taken if there are high cash distributions.
 - f. No discounts can be taken if the FLP holds only liquid marketable public securities.
- 2. The partnership agreement provisions concerning limited partner rights are not allowed to be considered in valuing an interest in an FLP.
 - a. True
 - b. False

- 3. Which of the following factors is/are included in Chapter 14 of the IRC?
 - a. Taxation of certain transfers of corporate and partnership interests
 - b. Sections 2701, 2702, 2703, and 2704
 - c. Impact of buy-sell agreements
 - d. Lapsing rights
 - e. Applicable restrictions
- 4. Which of the following statements concerning section 2703 and buy-sell agreements is/are true?
 - a. They are bona fide business arrangements.
 - b. They must include a formula for valuation.
 - c. They are not devices to transfer property for less than full and adequate consideration.
 - d. Terms are comparable to similar arrangements entered into by persons in arm's length transactions.
- 5. FLPs are often valued using the asset approach.
 - a. True
 - b. False
- 6. FLPs that hold marketable securities are discounted using mutual fund data.
 - a. True
 - b. False
- 7. Which of the following is/are typically relied on when determining discounts for limited partner interests in an FLP that holds marketable securities and real estate?
 - a. Revenue Ruling 59-60
 - b. Partnership Profiles
 - c. Morningstar closed-end funds
 - d. Restricted stock studies
- 8. Closed-end fund information is always used to determine the DLOM of a limited partner interest in an FLP.
 - a. True
 - b. False
- 9. Some marketability is implicit in the sales of partnerships referenced in Partnership Profiles.
 - a. True
 - b. False
- 10. Closed-end fund data reflect instant marketability/liquidity.
 - a. True
 - b. False
- 11. In tax valuations, values in buy-sell agreements are:
 - a. Determinative of value for gift tax purposes
 - b. Determinative of value for estate tax purposes
 - c. Only a consideration for gift and estate tax purposes
 - d. Determinative for value for estate tax purposes and a consideration of value for gift tax purposes

- 12. What are the names of the three types of buy-sell agreements?
 - a. Restrictive, hybrid, cross-purchase
 - b. Hybrid, restrictive, repurchase
 - c. Hybrid, entity-purchase, cross-purchase
 - d. First refusal, restrictive, hybrid
- 13. Buy-sell agreements should be customized for each company.
 - a. True
 - b. False
- 14. Which of the following statements is/are true concerning buy-sell agreements?
 - a. The greater the selling restrictions, the greater the possible impact on a DLOM.
 - b. They should include the standard of value and a definition of the standard of value.
 - c. Discounted values are not acceptable for tax purposes. It is good practice to have a mechanism for the value.
 - d. Funding of a buyout should be excluded.
- 15. Buy-sell agreements are not typically legal agreements under state law.
 - a. True
 - b. False

3.20 CHAPTER 16: SUMMARY OF COURT CASE VALUATION ISSUES

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3.21 CHAPTER 17: SHAREHOLDER DISPUTES

and

3.22 CHAPTER 18: EMPLOYEE STOCK OWNERSHIP PLANS

- 1. For dissenting stockholder suits, the standard of value and its definition are the same for each state.
 - a. True
 - b. False
- 2. Which of the following is/are typically shareholder disputes under state statutes?
 - a. Dissenting shareholder
 - b. Gift tax
 - c. Estate tax
 - d. Minority oppression

- e. Income tax
- f. ESOPs
- 3. Which of the following standards of value is/are the standard(s) of value for shareholder disputes under state statutes?
 - a. Fair market value
 - b. Investment value
 - c. Intrinsic value
 - d. Fair value
 - e. Going concern value
 - f. Orderly liquidation value
- 4. Fair value equals fair market value.
 - a. True
 - b. False
- 5. Which state(s) is/are the most influential in the area of dissenting rights nationally?
 - a. Pennsylvania
 - b. Texas
 - c. Delaware
 - d. Rhode Island
 - e. California
 - f. Georgia
- 6. In the dissenting shareholder area, all states disallow discounts for minority interest and lack of marketability.
 - a. True
 - b. False
- 7. The ultimate responsibility for obtaining an accurate valuation in an ESOP lies with the appraiser.
 - a. True
 - b. False
- 8. Every valuation in an ESOP must fulfill the regulations of both the IRS and the Department of Labor.
 - a. True
 - b. False
- 9. Which of the following statement(s) is/are true regarding ESOPs?
 - a. Adequate consideration is the fair market value of the asset as determined in good faith by the trustee or named fiduciary.
 - b. The analyst preparing the valuation must be independent of all parties to the transaction.
 - c. ESOPs create greater liquidity for an ownership interest in a closely held company.
 - d. ESOPs can own stock in C corporations only.
 - e. Adequate consideration means that the ESOP cannot pay less than fair market value.
 - f. Most ESOPs have put provisions that allow greater liquidity.

- g. ESOPs provide favorable tax treatment.
- h. Discounts for lack of marketability are not allowed because of put provisions.
- 10. Analysts should consider repurchase liabilities when considering the value of a company's shares pursuant to an ESOP.
 - a. True
 - b. False

3.23 CHAPTER 19: VALUATION IN THE DIVORCE SETTING

and

3.24 CHAPTER 20: VALUATION ISSUES IN SMALL BUSINESSES

and

3.25 CHAPTER 21: VALUATION ISSUES IN PROFESSIONAL PRACTICES

- 1. Fair market value is the standard of value in all states in divorce actions.
 - a. True
 - b. False
- 2. Which of the following statements is/are true concerning goodwill in a divorce valuation?
 - a. All states allow goodwill value.
 - b. All states allow entity goodwill but not personal goodwill.
 - c. Generally, state case law will determine whether personal goodwill is considered a marital asset.
 - d. Personal goodwill is usually more difficult to transfer than entity goodwill.
 - e. In many professional practices and very small businesses, it is not unusual that personal goodwill makes up the majority of goodwill value.
- 3. Noncompete agreements completely protect the transfer of personal goodwill.
 - a. True
 - b. False
- 4. Which of the following is/are considered factors about the professional that can be considered in determining the amount of personal goodwill in a professional practice?
 - a. Age and health
 - b. Reputation
 - c. Types of clients and services

- d. Source of new clients
- e. Location and demographics
- 5. Divorce courts never aggregate family interests since this violates the concept of hypothetical buyer and seller.
 - a. True
 - b. False
- 6. Small businesses tend to be highly dependent on their owner.
 - a. True
 - b. False
- 7. Which of the following is/are generally characteristics of small businesses?
 - a. They have less access to capital.
 - b. Their cost of borrowing is higher.
 - c. There is a need for personal guarantees by owner.
 - d. They have audited financial statements.
 - e. They contain discretionary owner items.
 - f. Only the guideline company transaction method of the market approach is valid.
 - g. They have a higher failure rate.
 - h. They may not contain any entity goodwill value.
 - i. Guideline public company method of the market approach is never a valid method.
 - Rules of thumb, particularly from business brokers, should be rejected for consideration.
- 8. Discretionary earnings are usually defined as earnings before interest, taxes, depreciation, and amortization and one owner's compensation.
 - a. True
 - b. False
- 9. In preparing a reasonableness test for the value of a small business, which of the following is/are typical financing assumptions?
 - a. 25 percent to 30 percent down payment.
 - b. Seller financing.
 - c. Repayment over 10 years.
 - d. Owner must stay for at least three years.
 - e. All-cash deals.
- 10. Analysts should consider all three approaches to value when valuing an interest in a professional practice.
 - a. True
 - b. False

3.26 CHAPTER 22: REASONABLE COMPENSATION

[This section left intentionally blank.]

3.27 CHAPTER 23: THE VALUATOR AS EXPERT WITNESS

[This section left intentionally blank.]

3.28 CHAPTER 24: FAIR VALUE MEASUREMENT AND THE VALUATION OF INTANGIBLE ASSETS

- 1. Goodwill is an intangible asset.
 - a. True
 - b. False
- 2. The standard of value for the valuation of intangible assets is fair market value.
 - a. True
 - b. False
- 3. Intangible assets receiving legal protection are often referred to as intellectual property.
 - a. True
 - b. False
- 4. Which of the following is/are major categories of intangible assets as defined by the Financial Accounting Standards Board (FASB)?
 - a. Marketing related
 - b. Customer related
 - c. Artistic related
 - d. Contract based
 - e. Technology based
 - f. Assembled workforce
- 5. Rates of return on many intangible assets are generally higher than rates of return on tangible assets.
 - a. True
 - b. False
- 6. Fair value is the same for financial reporting and dissenting rights actions.
 - a. True
 - b. False
- 7. ASC 805 addresses business combinations including allocating the purchase price to intangible assets.
 - a. True
 - b. False

- 8. ASC 350 addresses the treatment of intangible assets and goodwill and how to test them for impairment.
 - a. True
 - b. False
- 9. ASC 820 defines fair value.
 - a. True
 - b. False
- 10. Indefinite-life intangibles cannot be valued separately and are included in goodwill.
 - a. True
 - b. False
- 11. Which of the following statements is/are true regarding goodwill impairment for public companies?
 - a. If necessary, it is a two-step process.
 - b. Step 2 requires the valuation of all intangible assets as if the reporting unit was just acquired and purchase accounting applied.
 - c. There is no impairment if carrying value is less than fair value.
 - d. Fair value assumes a market participant in a hypothetical transaction.
 - e. It is calculated after ASC 360 impairments.
- 12. Intangible assets are generally valued after tax.
 - a. True
 - b. False
- 13. The amortization tax benefit recognizes the value of the tax shield as a result of the 15-year tax amortization of most intangible assets and goodwill.
 - a. True
 - b. False
- 14. Goodwill typically has the highest rate of return assigned to it.
 - a. True
 - b. False
- 15. Which of the following statements is/are true regarding the valuation of intangible assets for financial reporting?
 - a. Net cash flows attributable to a specific intangible asset must be after returns on other contributory assets, both tangible and intangible.
 - b. Returns on contributory assets are all at the same discount rate.
 - c. FASB Concept 7 presents two present-value approaches, the expected cash flow approach and the traditional approach.
- 16. The amount of value to be allocated under ASC 805 is the purchase price paid for the invested capital of a business.
 - a. True
 - b. False
- 17. Where applicable and feasible, the income approach is often the preferred approach in valuing intangible assets.
 - a. True
 - b. False

- 18. The three approaches to value should be applied in the valuation of any intangible asset.
 - a. True
 - b. False
- 19. Internally used software not for resale is often valued using the cost approach.
 - a. True
 - b. False
- 20. Individual returns on assets can be reconciled to the company's weighted average cost of capital.
 - a. True
 - b. False

3.29 CHAPTER 26: BUSINESS DAMAGES

[This section left intentionally blank.]

3.30 CHAPTER 28: VALUATION OF HEALTHCARE SERVICE BUSINESSES

[This section left intentionally blank.]

3.31 CHAPTER 29: DETERMINATION OF COMPENSATION IN THE HEALTHCARE INDUSTRY

[This section left intentionally blank.]

3.32 CHAPTER 30: SPECIAL INDUSTRY VALUATIONS

[This section left intentionally blank.]

3.33 CHAPTER 31: VALUATION VIEWS

[This section left intentionally blank.]

CHAPTER 1: INTRODUCTION TO FINANCIAL VALUATION

- 1. a, b, c, d
- 2. a, b, c, d
- 3. b. False
- 4. American Institute of Certified Public Accountants American Society of Appraisers Canadian Institute of Chartered Business Valuators Institute of Business Appraisers National Association of Certified Valuators and Analysts
- 5. a. True
- 6. a, c, e, f, g
- 7. a. True
- 8. a, c, e, f
- 9. b. False
- 10. a
- 11. b
- 12. b. False
- 13. b. False
- 14. b
- 15. b. False
- 16. b, c, g
- 17. d
- 18. b. False
- 19. b. False
- 20. none
- 21. c
- 22. f, g, h
- 23. a
- 24. b. False
- 25. a. True

CHAPTER 2: STANDARDS OF VALUE

- 1. a, c, d, f, g
- 2. b. False
- 3. a. True
- 4. b. False
- 5. a, c

- 6. c, d
- 7. a. True
- 8. b. False
- 9. a. True
- 10. b. False

CHAPTER 3: RESEARCH AND ITS PRESENTATION

- 1. a, b
- 2. Bloomberg

Proquest Dialog

Factiva

Lexis-Nexis

Avention

Alacra

Thomson Reuters

- 3. a, b, e, f, h
- 4. a. True
- 5. a, b, c, d, e, f
- 6. a, b, d, e, h, i
- 7. b. False
- 8. a, d
- 9. b. False
- 10. b. False

CHAPTER 4: FINANCIAL STATEMENT AND COMPANY RISK ANALYSIS

- 1. a, b, c
- 2. a, b, c, d, e
- 3. b. False
- 4. b. False
- 5. b. False
- 6. a, d, e, f
- 7. a, c, d, e, f, g, h
- 8. a
- 9. b, c, d, e, f, g, h, j
- 10. b. False
- 11. b
- 12. a. True
- 13. a, b, c, d
- 14. Potential comments:
 - Total assets, total liabilities, and total equity have increased each year
 - They have made capital expenditures each year
 - Revenues and gross profit up each year
 - EBITDA and operating income up each of last four years with a dip from the first to second year

- Officers' compensation up \$500,000 or one-third increase over the five-year period
- Steady use of liabilities
- Gross margin steady
- Some fluctuation in operating income margin (low of 2.5 percent to high of 4.5 percent; however, margin up each of last four years)
- Ale's seems to be growing although down from year one to two in margin and profits
- 15. a, c, e
- 16. b. False
- 17. a. True
- 18. See Addendum of Chapter 4 of *Financial Valuation Applications and Models*, 4th edition, for detailed explanation.
- 19. a, b, c, d
- 20. d, e, f

CHAPTER 5: INCOME APPROACH

- 1. True
- 2. a, b, c, d, e
- 3. a. True
- 4. a, b, d
- 5. Discounted cash flow Capitalized cash flow

Excess cash flow

- 6. a. True
- 7. b. False
- 8. b. False
- 9. a, b, e, f, g
- 10. a, b, e
- 11. b. False
- 12. a. True
- 13. a, b, c, d, e
- 14. b. False
- 15. b. False
- 16. a. True
- 17. b. False
- 18. a, c
- 19. Net income after tax

Plus: depreciation/amortization and other noncash charges

Less: incremental working capital needs

Less: incremental capital expenditure needs

Plus: new debt principal in

Less: repayment of debt principal

20. a. True

21. Net income after tax

Plus: interest expense (tax-affected)

Plus: depreciation/amortization and other noncash charges

Less: incremental debt-free working capital needs

Less: incremental capital expenditure needs

- 22. b. False
- 23. Current earnings

Simple average

Weighted average

Trend line static

Formal projection

- 24. a. \$392,000
 - b. \$426,667
 - c. \$496,000
 - d. \$500,000
 - e. \$500,000
 - f. 20X2 seems like an aberration. The last three years show growth as well. A management interview would help make the proper selection. A simple average doesn't recognize the upward trend. If an average were used, the weighted average would be better. The trend line static method recognizes the trend but is based on only five periods. May be okay, though.
- 25. b. False
- 26. b. False
- 27. a, b, c, d
- 28. a. True
- 29. a. True
- 30. c, d

CHAPTER 6: COST OF CAPITAL

- 1. a. True
- 2. b. False
- 3. a, b, d, e, f, h, i
- 4. a, b, c, d, e
- 5. a. True
- 6. a. True
- 7. a, b, c, d, e, f
- 8. a, d, e
- 9. a. True
- 10. b. False
- 11. a. True
- 12. a, d, e
- 13. b
- 14. a, b, g, h, i, j
- 15. a, b, c, f, h

- 16. a, b, c, h
- 17. a. R_f: Rate of return available on a risk-free security as of the valuation date
 - b. RP_m: Equity risk premium (ERP) for the market as a whole
 - c. RP_s: Risk premium for smaller size
 - d. RP_c: Risk premium attributable to other company risk factors
- 18. b. False
- 19. a, b, c, d, e, f, g
- 20. b. False
- 21. b. False
- 22. a, b, c
- 23. a. True
- 24. a, b
- 25. MCAPM relies on an explicit beta, while build-up may or may not reflect RP_i—industry risk premium (also based on industry betas).
- 26. b. False
- 27. 1.23
- 28. MCAPM = 6% + (1.2 × 7%) + 6% + 3% = 23.4% WACC = .3(1 - .40) 8% + .7(23.4%) WACC = 17.8%
- 29. a, c, d, e
- 30. a, b, d, e

CHAPTER 8: MARKET APPROACH

- 1. b. False
- 2. b, c, d
- 3. a, b, c, g
- 4. a, c, d, e
- 5. a, g
- 6. a, b, d, e, f
- 7. a. True
- 8. b. False
- 9. c, d
- 10. a, c, e
- 11. a. True
- 12. a. True
- 13. a. True
- 14. Bizcomps

DoneDeals

IBA Market Database

Mergerstat Review

Pratt's Stats

Public Stats

GF Data Resources

PitchBook

SDC Platinum

- 15. b, f
- 16. a. True
- 17. a. True
- 18. b. False
- 19. a
- 20. b. False
- 21. a, b, d, e
- 22. a. True
- 23. c
- 24. See explanation in Chapter 8 of Financial Valuation Applications and Models, 4th edition
- 25. a, b, c, d, e
- 26. Equity, Invested capital
- 27. a, b, e, f, g, h, i
- 28. b. False
- 29. b. False
- 30. See explanation in Chapter 8 of Financial Valuation Applications and Models, 4th edition

CHAPTER 9: ASSET APPROACH

- 1. b, d
- 2. a. True
- 3. a. True
- 4. a, c, e
- 5. b. False
- 6. b. False
- 7. a. True
- 8. b
- 9. a. True
- 10. a. True

CHAPTER 10: VALUATION DISCOUNTS AND PREMIUMS

- 1. a. True
- 2. b. False
- 3. b. False
- 4. a. True
- 5. a
- 6. a, b, c
- 7. a
- 8. b
- 9. c
- 10. b
- 11. b. False
- 12. a. True

- 13. b
- 14. c
- 15. b. False
- 16. a, b, c, d
- 17. a, b, e
- 18. b. False
- 19. a, c, d, e, f
- 20. none
- 21. a, d
- 22. Black-Scholes

Finnerty

Chaffe

Longstaff

- 23. b, c, d
- 24. Dividend policy

Stock restrictions

Redemption policy

Number of shareholders

Size of block of stock

State law

- 25. b
- 26. a. True
- 27. a, b, c, d, e, f, g, h
- 28. b. False
- 29. b. False
- 30. a. True

CHAPTER 11: REPORT WRITING

- 1. b. False
- 2. b. False
- 3. a, c, d, f, g, h
- 4. a, c
- 5. b. False
- 6. a. True
- 7. b. False
- 8. b. False
- 9. a, b, c, d, g
- 10. b. False
- 11. b. False
- 12. a, b, d, f
- 13. b. False
- 14. b. False
- 15. a, b

CHAPTER 12: BUSINESS VALUATION STANDARDS

- 1. c
- 2. b. False
- 3. b. False
- 4. b. False
- 5. a, c, d, e, g
- 6. b. False
- 7. b. False
- 8. a, c, d, e
- 9. a. True
- 10. Valuation, Calculation

CHAPTER 13: VALUATION OF PASS-THROUGH ENTITIES

and

3.14 CHAPTER 27D: VALUATION ISSUES IN PREFERRED STOCK

and

CHAPTER 27E: RESTRICTED STOCK VALUATION

and

CHAPTER 27G: VALUATION ISSUES RELATED TO STOCK OPTIONS AND OTHER SHARE-BASED COMPENSATION

- 1. True
- 2. a, b, e, f, g
- 3. a. True
- 4. a. True
- 5. a. True
- 6. a, c, f, g
- 7. c
- 8. a, b, c, d, e
- 9. $\$6 \div 0.10 = \60
- 10. a. True
- 11. b. False
- 12. a, b, d
- 13. Black-Scholes Binomial
- 14. b. False

- 15. a, c, d, e, f
- 16. a. True
- 17. a. True
- 18. e
- 19. a. True
- 20. c, d, e

CHAPTER 14: ESTATE, GIFT, AND INCOME TAX VALUATIONS

- 1. b. False
- 2. a. True
- 3. a, b, c, d, e
- 4. c
- 5. b. False
- 6. c, d
- 7. b. False
- 8. b, c, e, f
- 9. b. False
- 10. b, c, e
- 11. b, c
- 12. a. True
- 13. b. False
- 14. a, b
- 15. b. False
- 16. b
- 17. a. True
- 18. a, b, c
- 19. a. True
- 20. d

CHAPTER 15: VALUATION OF FAMILY LIMITED PARTNERSHIPS

and

CHAPTER 27B: VALUATION ISSUES IN BUY-SELL AGREEMENTS

- 1. a
- 2. b. False
- 3. a, b, c, d, e
- 4. a, c, d
- 5. a. True
- 6. b. False
- 7. a, b, c, d, e

- 8. b. False
- 9. a. True
- 10. a. True
- 11. c
- 12. c
- 13. a. True
- 14. a, b, c
- 15. b. False

CHAPTER 17: SHAREHOLDER DISPUTES

and

CHAPTER 18: EMPLOYEE STOCK OWNERSHIP PLANS

- 1. b. False
- 2. a, d
- 3. d
- 4. b. False
- 5. c
- 6. b. False
- 7. b. False
- 8. a. True
- 9. a, b, c, f, g
- 10. a. True

CHAPTER 19: VALUATION IN THE DIVORCE SETTING

and

CHAPTER 20: VALUATION ISSUES IN SMALL BUSINESSES

and

CHAPTER 21: VALUATION ISSUES IN PROFESSIONAL PRACTICES

- 1. b. False
- 2. c, d, e
- 3. b. False
- 4. a, b, c, d, e
- 5. b. False
- 6. a. True

- 7. a, b, c, e, g, h
- 8. a. True
- 9. a, b
- 10. a. True

CHAPTER 24: FAIR VALUE MEASUREMENT AND THE VALUATION OF INTANGIBLE ASSETS

- 1. True
- 2. b. False
- 3. a. True
- 4. a, b, c, d, e
- 5. a. True
- 6. b. False
- 7. a. True
- 8. a. True
- 9. a. True
- 10. b. False
- 11. a, b, c, d, e
- 12. a. True
- 13. a. True
- 14. a. True
- 15. a, c
- 16. b. False
- 17. a. True
- 18. b. False
- 19. a. True
- 20. a. True

4.1 INTRODUCTION

In the companion book, *Financial Valuations: Applications and Models (FVAM)*, numerous ValTips are presented to highlight important concepts, application issues, and pitfalls to avoid. These ValTips are reproduced in this chapter with slight modification for presentation on a standalone basis. The ValTips are organized and identified by *FVAM* chapter.

4.2 CHAPTER 1: INTRODUCTION TO FINANCIAL VALUATION

- 1. Relying on the wrong standard of value can result in a very different value than would have been concluded under the proper standard of value. In a dispute setting, the use of the wrong standard of value for the jurisdiction can result in a possible dismissal of the value altogether.
- 2. Although state courts may use the term *fair market value* in marital dissolution cases, no states have specific and detailed definitions of fair market value.
- 3. Some companies are worth more dead than alive. It is important for the analyst, particularly when valuing an entire company, to determine if the going concern value exceeds the liquidation value. For a minority interest, there are situations where the going concern value is less than the liquidation value. However, the minority shareholder cannot force a liquidation if the controlling shareholder desires to continue the business as a going concern.
- 4. Price and cost *can* equal value but don't necessarily *have to* equal value. Furthermore, value is future-looking. Although historical information can be used to set a value, the expectation of future economic benefits is the primary value driver. Investors buy tomorrow's cash flow, not yesterday's or even today's.

4.3 CHAPTER 2: STANDARDS OF VALUE

1. While selecting a standard of value in a valuation assignment seems like a straightforward concept, different standards may have different meanings in different contexts. Therefore, defining *value* and adhering to the assumptions inherent in a particular standard of value, especially in connection with a valuation for tax, judicial, or regulatory purposes, is often not an easy task.

- 2. Fair market value is perhaps the most well-known standard of value and is commonly applied in judicial and regulatory matters. Fair market value applies to virtually all federal and state tax matters, including estate, gift, inheritance, income, and ad valorem taxes, as well as many other valuation situations.¹
- 3. In many instances the reported value of a controlling interest for financial statement reporting purposes (fair value) is the same as fair market value. This is relevant in 409a valuations where the client needs to know the value of stock compensation for tax and financial statement reporting.
- 4. In judicial appraisals, *fair value* is a legally mandated standard that applies to specific transactions and is commonly used in matters involving dissenter's rights and shareholder oppression.
- 5. Investment value can be measured, for example, as the discounted net cash flow that a particular investor would expect a company to earn, in the way that particular (owner) investor would operate it.
- 6. Intrinsic value and investment value may seem like similar concepts, but they differ in that *intrinsic value* represents an estimate of value based on the perceived characteristics adhering to the investment itself, while *investment value* is more reliant on characteristics adhering to a particular purchaser or owner.²
- 7. While allowed in some jurisdictions, this is a controversial area. When it is already reflected in the cash figures, many analysts do not believe in applying a control premium, as they believe this is a double count. This creates a potential problem when a court believes it should be applied. See the addendum to Chapter 17, "Testing for an Implied Minority Discount in Guideline Company Prices," by Gilbert E. Matthews, CFA, *Financial Valuation and Litigation Expert*, Issue 19, at www.wiley.com/go/FVAM4E.
- 8. Because states view property differently, there is no one consistent business valuation model that can be used across the nation. States treat various issues such as professional goodwill, buy-sell agreements, and shareholder-level discounts differently.

4.4 CHAPTER 3: RESEARCH AND ITS PRESENTATION

1. Because of the complexity of the data-assembling process, many professionals use checklists that detail the types of information they are seeking. See online addenda for this chapter at www.wiley.com/go/FVAM4E and in the companion workbook. Addendum 1, "Valuation Information Request (VIR) General," presents a sample list of documents requested and questions to be asked in the course of a valuation engagement. Addenda 2 and 3 contain sample management interview questionnaires. Using these tools can help ensure that the valuation analyst covers the necessary bases in gathering internal information.

¹Shannon P. Pratt, Valuing a Business, 5th ed. (New York: McGraw-Hill, 2008), 41.

²Ibid., 44.

- 2. Before looking for information, valuation analysts should have a plan.
- 3. The 10-Ks of public companies often have detailed analyses of the industry.
- 4. Google is great but it doesn't cover every resource you may need. Also consider database services such as Bloomberg, Proquest Dialog, Factiva, Lexis-Nexis, Avention, Alacra, and Thomson Reuters, which offer extensive collections of periodicals, legal information, and financial data.
- 5. Analysts consider the key external factors that affect value, such as interest rates, inflation, technological changes, dependence on natural resources, and legislation.
- 6. The Federal Reserve's *Beige Book* contains information on current economic conditions in each district gathered through reports from interviews with key business professionals, economists, and market experts.
- 7. The investor relations section of the websites of public companies operating in the same industry as the subject company is often a source of free industry data. Such websites typically provide access to public filings with the Securities and Exchange Commission, which include management's assessment of the current and future market and industry risks. Such public information can provide a highly useful source for understanding the industry.
- 8. Yahoo Finance (https://finance.yahoo.com) is a quick, free place to check data on individual publicly traded companies.
- 9. A common mistake by inexperienced valuation analysts is to wait until the last minute to do the industry and economic analysis and then to drop it into the text without any discussion of how it relates to the valuation conclusion.

4.5 CHAPTER 4: FINANCIAL STATEMENT AND COMPANY RISK ANALYSIS

- The CPA-analyst must take special care to set expectations in both the engagement letter and the valuation report regarding the degree of responsibility assumed for financial statements presented within the report because of accounting standards for attestations, reviews, and compilations.
- Financial statements may be necessary for more or fewer than five years if the subject company's business cycle does not coincide with a five-year time frame or if certain earlier years are not relevant or available (e.g., period of recession, or unusual operating activity).
- 3. Extraordinary and unusual items used to be identified in financial statements, but in accordance with ASU No. 2015-01, such transactions may no longer be segregated out. Valuation analysts need to inquire about these types of items in discussions with management.
- 4. The valuation report should provide reasonable commentary regarding methods and ratios chosen and results of the analysis.
- Analysts should not mix year-end data with beginning- and ending-year average data when preparing comparisons of the subject company to industry benchmark data and ratios.
- 6. To use benchmark industry ratios appropriately, analysts must be familiar with their scope and limitations as well as with the differences among them regarding data presentation and computation methods.

4.6 CHAPTER 5: INCOME APPROACH

- 1. Failure to develop the appropriate normalizing adjustments may result in a significant overstatement or understatement of value.
- Compensation adjustments are made as required to differentiate the portion of the shareholders' compensation for their personal service rendered to the subject company and the portion of the compensation attributed to their equity investment.
- 3. By choosing to make certain adjustments to the future economic benefit (i.e., the numerator), the analyst can develop a control or noncontrol value.
- 4. Normalization adjustments affect the pretax income or cash flow of the entity being valued. Consequently, the control adjustments will result in a corresponding modification in the income tax of the entity, if applicable.
- 5. Adjustments to the income and cash flow of a company are the primary determinants of whether the capitalized value is minority or control.
- 6. When there are controlling interest influences in the benefit stream or operations of the entity and a minority interest is being valued, it may be preferable to provide a minority value directly by not making adjustments. Doing this will avoid the problems related to determining and defending the application of a more general level of minority discount.
- 7. Depending on the situation, statements prepared on a "tax basis" or "cash basis" may have to be adjusted to be closer to GAAP and/or normalized cash flow.
- 8. As with the control-oriented adjustments, extraordinary, nonrecurring, or unusual item adjustments affect the profit or loss accounts of a company on a pre-tax basis. Therefore, certain income tax-related adjustments may be necessary.
- 9. Specialists in the valuation of particular nonoperating assets may need to be hired. Engagement letters should clearly set out these responsibilities and the related appraisal expenses. Permission should be obtained from any third-party appraiser before relying upon their appraisal conclusions and incorporating them into the valuation report. The valuation date, purpose, and standard of value for the related appraisal should be consistent with the valuation.
- 10. Synergistic value is investment value, which may not be fair market value.
- 11. In many small companies, income and cash flow can be the same or similar.
- 12. Cash flows presented on the financial statements are generally not used in business valuations. Because cash flows are normalized to estimate cash flows into perpetuity, specific changes in current assets and liabilities, specific purchases, and specific borrowings and repayments are ignored.
- 13. There are only four general types of analyses for application of the income approach.
- 14. Regardless of the method employed, dialogue with or information from management can provide insight into future projections.
- 15. Projections are used when variability in growth can be, or needs to be, accounted for in the benefit stream. When static growth is accounted for in the risk rate, a single sum projection (historical earnings) may be used. In deciding how long to project into the future, project until growth is estimated to be static, at which point growth is accounted for in the risk (capitalization) rate.

16. Theoretically, the length of the explicit period is determined by identifying the year when all the following years will change at a constant rate. Practically, however, performance and financial position after three to five years often are difficult to estimate for many closely held companies. Lesser periods are sometimes used as well.

- 17. In some circumstances, the past is not indicative of the future. Analysts must exercise care in analyzing projected performance in these situations. Adequate support must exist for the assumptions upon which the projections are based.
- 18. The valuation analyst uses normalized historical data, management insights, and trend analysis to analyze formal projections for the explicit period. These projections take into account balance sheet and income statement items that affect the defined benefit stream and involve not only projected income statements but also may include projected balance sheets and statements of cash flow. CPAs preparing projections may be subject to AICPA standards and reporting requirements for prospective financial statements.
- 19. The CCF formula includes the assumption that the NCF₁ can be "distributable" to the owners of the enterprise.
- 20. All other things being equal, the more certain the future streams of cash flow are, the more valuable the asset or entity.
- 21. When using the midterm convention for a partial year, the first- and second-year factors are treated a bit differently. For example, if projections begin with calendar year 20X1 through 20X5 (five years) and the valuation date is 3/31/X1, the first-year factor is 0.375 ($9/12 \times 0.5$) and the second year is 1.25 ($0.375 \times 2 + 0.5$). "1" is added to the third, fourth, and fifth years, or 2.25 (3rd), 3.25 (4th), and 4.25 (5th). As usual, the terminal year factor is equal to the last year of the explicit period of 4.25.
- 22. The terminal value is critical, as it often represents a substantial portion of the total value of an entity, particularly when using a three- to five-year interim period.
- 23. The Value Driver Model can result in a lower terminal value than the Gordon Growth Model.
- 24. The Advanced Growth Model is shown here for informational purposes only. Currently, it does not have widespread use in the valuation community.
- 25. Property (i.e., real estate) may be segregated from tangible assets at the outset and added back in separately. Rent expense can be substituted for real estate-related expenses.
- 26. If the control excess cash flow method is used and a minority value is the interest that is being valued, if appropriate, a discount for lack of control may be determined and applied.
- 27. Excess cash and cash equivalents are actually nonoperating assets and can be isolated from the operating assets during normalization.
- 28. The company's lending rates may be different if personal guarantees are required from the company's owners/officers. This also depends on the type of assets.
- 29. Whatever rate of return is used for goodwill, the aggregate return on all net assets should approximate the weighted average cost of invested capital for the entity.
- 30. The CCF method (also the Gordon Growth Model) is applicable when IBD is in the form of a line of credit that grows at the same constant growth rate applied.

4.7 CHAPTER 6: COST OF CAPITAL/RATES OF RETURN

- 1. Identifying the value drivers of an enterprise and developing action steps to limit or reduce controllable (e.g., internally oriented versus external) risks can be of great benefit to many closely held businesses in terms of increasing their value.
- 2. The value of a company can be expressed as the present value of the future economic benefits expected to be generated by the company. This value can be either for equity, in which case the future benefits are those directly to equity and an equity discount rate must be used, or for the overall company, including its debt, in which case a weighted average cost of capital (WACC) must be used.
- 3. The estimation of company-specific risk is one of the more difficult aspects of calculating rates of return.
- 4. APT is not widely used in business valuation assignments for cost of capital determinations due to the unavailability of usable data for the components of the model.
- 5. Do not blindly rely upon numbers from sources for the elements of the cost of equity. Understand the source of the data and how the numbers are derived.
- 6. Mixing data sources for the various elements of the cost of equity can lead to errors. For example, the industry risk premium data must be adjusted if using different Duff & Phelps risk premium data from the Risk Premium Report. The *Valuation Handbook* provides guidance to understanding the proper use of the data.
- 7. Under fair market value, the horizon may be that of the investment, not the investor.
- 8. No direct source for returns on 20-year Treasury bonds for all the years going back to 1926 is available. The Board of Governors of the Federal Reserve System publishes an online database of historical Federal Reserve Statistical Releases, which includes yields on 20-year Treasury constant maturities. The St. Louis branch of the Federal Reserve Bank publishes an extensive inventory of historical yield rates on all types of government securities, including the 20-year constant maturity Treasury bond. Analysts can consult *The Wall Street Journal* to find the quoted market yields on 30-year bonds with approximately 20 years of maturity left.
- 9. The risk-free rate is a forward-looking concept, although historical data are often relied upon to estimate the risk-free rate.
- 10. The ERP is a forward-looking concept, although historical data are often relied upon to estimate the ERP. The ERP is an estimate of expected future market returns, and this must be considered in choosing an appropriate ERP for each particular circumstance.
- 11. If using Duff & Phelps Risk Premium Report data in a CAPM, no equity risk premium adjustment is required. If using the Duff & Phelps Risk Premium Report combined market and size data in a build-up model, an adjustment must be made if the recommended ERP is used.
- 12. For publicly held companies, systematic risk is captured by a measurement referred to as the beta of the enterprise.
- 13. It is common to assume a privately held company's beta as 1.0 and develop separate risk factors to include in its overall rate of return calculations or to use a beta for an industry group or from guideline public companies.
- 14. Published betas from multiple sources can display different results due to differing time periods, methodologies, and adjustments. Therefore, the valuation analyst should use betas from only one source in any given valuation.
- 15. The commonly used Hamada formulas assume that debt remains at a constant *amount*, not a constant *percentage* of the capital structure.

16. Analysts who rely on the industry premia for developing cost of equity and also use the argument that no comparable guideline public companies were available should be aware of the inconsistency in that statement. The industry premia are based on betas for an SIC code that may include companies rejected as guideline public company comparables.

17. The authors note that the industry risk data for specific industries appear to change significantly between annual editions for many of the industries listed, and therefore caution that the direct application of an added or subtracted component to the BUM for industry risk remains questionable and is affected by the type and detail of the data.

An alternate approach is to evaluate the risk premia provided for SIC codes related to the valuation target under consideration and then use such information inferentially to adjust the company-specific risk component under the premise that industry risk is an element thereof. This is also an important distinction because, when using the industry data directly, it is important to eliminate any consideration of industry risks within the company-specific risk adjustment.

- 18. Many analysts in the valuation community are not comfortable with the direct application of industry risk premia adjustments. However, analysts can consider this empirical evidence where the subject falls within one of the SIC codes and the data for that code include a sufficient number of companies. It also needs to make sense.
- 19. The size premium is different from the small-stock risk premium, which is not beta adjusted and is simply the arithmetic return on small stocks less the arithmetic return on the market.
- 20. Lists of small-company risk factors can be used to analyze the attributes of a specific subject company and to select the level of adjustment for size and other company-specific risk. It is important, however, to avoid double counting, since adjustments for size may implicitly include adjustments for other operating attributes.
- 21. Every business enterprise will have its own unique attributes and risks, which can be incorporated into the rate of return.
- 22. Analysts must use caution when working with a methodology that assigns specific numerical adjustments to the build-up or CAPM rate. Due to the subjective nature of the numerical assignments for each category, the analyst may be asked if it is reasonable for each of the factors to be, say, a half percentage point higher or lower, thereby in summation causing a significant change in the resulting capitalization or discount rate being developed. These numerical adjustments are not as exact as they appear and are not based on any empirical data. Also, these lists may not be all-inclusive.
- 23. The format and content of an analytical framework for analyzing company-specific risk will vary considerably depending on the nature of the assignment and the depth of analysis required. However, the articulation of the analyst's thought process by use of diagnostic tools can be a means of competitive differentiation, whether the tools are included in the final report or in engagement work papers.
- 24. Since traditionally derived discount and capitalization rates are cash flow rates and not earnings rates, an upward subjective adjustment would typically have to be made to convert the rate. Alternatively, the historical relationship of net income to net cash flow is expected to continue in the returns.
- 25. It is important to recognize the increasingly "noisy" nature of public-company-reported valuation multiples, including P/E. As one example, on August 21, 2001,

The Wall Street Journal³ reported that many public companies have moved away from using Generally Accepted Accounting Principles (GAAP) earnings for the E of the P/E to utilize other earnings measures, such as "operating" earnings before extraordinary items, "core" earnings, and even "pro forma" earnings. Each of these revised definitions of earnings allows reporting entities to exclude certain one-time, exceptional, special, or noncash expenses; in turn, the net income of the enterprise is higher. According to the article, more than 300 of the 500 entities making up the S&P 500 now exclude some ordinary expenses as defined by GAAP from the operating earnings numbers provided to investors and analysts.

4.8 CHAPTER 7: INTERNATIONAL COST OF CAPITAL

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4.9 CHAPTER 8: MARKET APPROACH

- Comparability relates to similar operating characteristics; therefore, companies
 within the same industry are not always comparable to the subject company.
 When using the DMDM, the subject company's position in the market is what
 is important.
- 2. The prices paid for businesses and business interests reflect investor expectations. Consequently, any valuation methods that use stock or sales prices of businesses, including the market approach, are prospective in nature.
- Multiples derived from the market approach include future growth expectations. Similar companies with different expected future growth rates will have different multiples.
- 4. Sales transaction data are only available for companies that have sold and reported pricing information, but the entire universe of companies includes those that were never sold or were sold in transactions for which data were unreported. Therefore, the multiples from databases of transactions may be overstated, since the companies for which data are reported may be more saleable that those not reported.
- 5. Adjustments to the subject interest for lack of marketability or liquidity depend on the facts and circumstances related to the subject company valuation, the industry, and the selected multiple(s).
- 6. The values derived from both the market and income approaches implicitly include the value of all operating assets, both tangible and intangible.
- 7. When relying on databases of transaction information, analysts should use caution. Some of the databases calculate multiples excluding working capital. Thus, working capital must be added to the value indication to calculate the operating value of the company.

³ Jonathan Weil, "What's the P/E Ratio? Well, Depends on What Is Meant by Earnings," Wall Street Journal (August 21, 2001).

8. Investors' assumptions about growth are implicit in the prices of publicly traded companies and transactions. Generally, the higher the expected growth, the higher the value, all else being equal.

Analysts' reports may be available for publicly traded companies and will often discuss expected growth, whereas no such information is available for private transaction companies.

- 9. Examining detailed business descriptions of the possible guideline companies is an essential step in the analysis. Some data vendors provide good descriptions of a company's business(es). For publicly traded companies or those subject to SEC reporting requirements, the most detailed data are published in a company's 10-K filing or annual report.
- 10. Showing subject company management a list of guideline companies can be challenging, because managers frequently believe their company is "truly unique" and that none of the guideline companies are comparable. Assuming the guideline companies have been properly vetted with regard to industry, markets, size, margins, and growth, the guideline companies may often still be used to provide insight into the pricing for similar companies. The analyst should be prepared to explain the reasons why the guideline companies are comparable to the subject company.

Alternatively, management may insist that a particular company is comparable because it is a competitor, but the division that offers a product or service similar to the subject company may be just one of many larger lines of business.

- 11. The IBA cautions analysts that the P/E ratios in the database are less reliable than revenue multiples due in part to the "different interpretations by persons who furnish the data as to what constitutes earnings."
- 12. Use caution when applying the Direct Market Data Method (DMDM) approach for valuation dates during the Great Recession. During the period of the recession, business brokers observed transaction multiples for small businesses that were lower than prior to the recession. Whereas in the past, multiples may not have changed over time, the recession caused fundamental changes in the marketplace. An analysis of the transactions by date should identify changes that result from market conditions during a specific period or changes within the industry itself.
- 13. When using the market approach to value a very small business, the guideline company transactions method can be a relatively better method than guideline publicly traded company analysis. Some transaction information is often available even for very small businesses, but the smallest guideline publicly traded company may be much larger than the subject. Also the stock of some small publicly traded companies may not be traded frequently, in which case its market pricing may not be reliable for valuation multiples.
- 14. The lack of detailed information is the major disadvantage of this method when using private company transactions. It is difficult to know the structure of the transactions or the motivation of the buyer or seller. Even when the terms and amounts allocated to covenants are disclosed, it may be difficult to determine whether the allocations are based on fair market value or are tax motivated.
- 15. Because detailed financial statements of the acquired company are usually not available, it is impossible to make certain adjustments to the data underlying the pricing multiples, if necessary.

- 16. When preparing an analysis of controlling guideline company transactions, there is usually much less data available. In particular, usually there are no data on which to compute growth rates or to track trends in operations. This lack of information might limit the confidence in the results obtained from this method.
- 17. Use caution when using SIC codes, NAICS codes, or general industry classifications for searches. Often these classifications do not reflect a change in the focus of a business. On occasion, companies are misclassified.
- 18. The valuation analyst may have to consult publicly traded company SEC filings to obtain detailed financial information. Electronic databases are a good starting point, but the data may have to be adjusted to consistently reflect the financial position and performance across the companies analyzed.
- 19. It is good practice to review the SEC filings of selected guideline public companies, even when using a data vendor to populate valuation models. In addition to understanding the financial data, the notes to the financial statements can provide insights into major events and expectations for the company.
- 20. Some analysts believe that publicly traded companies are much too large to be used as comps in many situations. While this may be true for the smallest of subject companies, such as mom-and-pop operations, small professional practices, or sole proprietorships, there is usually enough size variation among publicly traded companies that they should at least be considered for most other valuations.
- 21. One of the most important indicators of comparability is size. Size can be expressed in terms of sales, total assets, or market capitalization. Numerous studies have indicated that, on average, smaller companies have lower pricing multiples than larger companies. The main reason for this is that smaller companies typically have more business and financial risk than large companies.⁴
- 22. Many analysts believe that valuation multiples should not be adjusted for differences in profit margins between the guideline public companies and the subject company. They believe that there may be a double effect by adjusting the multiple downward to reflect the lower margins of the subject company and then applying those lower multiples to that lower profit. They believe the more important criterion is the anticipated growth of those profits.
- 23. Another issue is whether the volume of trading in a guideline company's stock is sufficiently active to give meaningful and realistic values for that company. While companies with low trading volumes may be very similar to the subject in terms of business and financial characteristics, infrequent trades may not reflect the fair market value of the stock. As such, valuation multiples based on these prices may not be reliable enough to value a subject company.
- 24. Valuation analysts may have to choose between a very small group of companies whose business descriptions and operating characteristics are quite similar to that of the subject or an expanded group of companies, some of whose business descriptions and operating characteristics are not as good a match.

⁴More risk means investors will require a higher rate of return on their investment, and the way to achieve a higher rate of return is by lowering the price.

25. Interest-bearing debt should be reflected at market value; however, on a practical basis, analysts frequently use book value of debt as a proxy for market value.

- 26. Using percentiles rather than simple averages or composites provides a range of values and helps protect the information from the effects of outliers.
- 27. Market multiples capture investment expectations of the likelihood of these types of conditions continuing into the future. Inappropriate adjustments could cause the multiple to less accurately reflect expectations of the actual earnings base.
- 28. Different assets, including different business operations within a company, may have different rates of return. When a company operates in multiple business segments or industries, it may be necessary to segregate operations and value them separately.
- 29. If the subject company owns real estate used in the business, the real estate may need to be segregated to properly reflect its rate of return. This determination should be made based on how real estate is treated in the selected guideline companies. If it is included in the calculation of the multiple for the guideline companies, the analyst will not need to segregate it in the valuation. Also, if the highest and best use of the real estate is its current use, then it may be part of the operating assets.
- 30. One option is to consult with one or more recruiters to assist in determining the qualifications for a particular position and market compensation. Recruiters understand the market and the available pool of applicants. This information may help assess how many positions will be necessary to replace an owner and the market level of compensation.
 - Another source of data for executive compensation is the proxy statements for the selected guideline public companies. Executive compensation with benefits is reported annually. In either case, it is important to have a good job description as a basis for determining the market salary for the relevant positions.
- 31. When using private transactions as comparable companies, some databases report the type of entity, making it possible to analyze pass-through entities separately from entities taxable at the corporate level.
- 32. For public companies, it is important to refer to the actual SEC filings to ensure that items such as changes in product lines, mergers, and discontinued operations are captured in the historical financial statements upon which the analyst is relying. Not all data vendors incorporate restated financial statements into their data.
- 33. Deficiencies in working capital may be an indicator that short-term debt should be reclassified as long-term debt. In other words, disguised permanent funding may be causing the subject company's working capital to be low or negative.
- 34. Excess working capital can be identified by comparing the working capital ratio of the subject to those of the guideline companies or by comparisons to industry norms. However, the analyst should use caution and take into consideration information from management regarding the future operating requirements of the subject company. For example, a company may be accumulating working capital to pay for capital improvements in the near future, or its lenders may require minimum working capital reserves above the level observed in the guideline companies.

- 35. The analyst should be aware that making certain adjustments can change the level of value resulting from the analysis—many times from a noncontrol to a control level of value.
- 36. The quality and quantity of the guideline publicly traded company information will affect the reliability of the results of the guideline public company method of the market approach and how it factors into the analyst's conclusion of value.
- 37. Check definitions used by your sources. Some vendors of publicly traded stock information define MVIC as equity value less cash plus interest-bearing debt.
- 38. The choice of whether to use MVEq or MVIC is a function of the purpose of the valuation, the capital structures of the subject and guideline companies, and the analyst's preference.
- 39. The term "capital structure" refers to the relationship between the market values of debt and equity, never the book value of equity.
- 40. In theory, the best denominator to use is one that reflects expectations (i.e., using next year's expected revenues or income). It is an appropriate match with the numerator, since the value of equity or invested capital is a prospective concept, containing the market's best assessment of the prospects for the future.
- 41. Even though the analyst uses the LTM to calculate a guideline company multiple, the price used in the calculation is based on investors' future growth expectations for the guideline company. Therefore, the multiple incorporates growth expectations.
- 42. EBITDA multiples tend to be frequently used across many industries and are commonly used by investment bankers.
- 43. While rules of thumb seldom, if ever, should be used as the sole way of valuing a business, they can offer insight into the way investors view the industry.
- 44. Rules of thumb for smaller businesses may not provide reliable guidance for selecting the types of multiples to rely on from guideline public companies.
- 45. Negative valuation multiples, which usually arise from losses, are not meaningful and should be ignored. In such cases, a different positive multiple should be used if the company is considered comparable.
- 46. The final determination of which particular pricing multiple(s) to rely upon must be based on an understanding of how the subject compares to the guide-line companies in terms of the important factors discussed earlier (i.e., growth, size, longevity, profitability, etc.). The coefficient of variation may be useful in determining how much weight to accord each of the various multiples.
- 47. An analysis using guideline company transactions is essentially the same as illustrated here except there are considerably less data available to support its use as a primary method. Furthermore, the application of valuation multiples from each of the transaction databases results in a different type of value, for example, with or without inventory or working capital.
- 48. If necessary adjustments are not made to guideline public company multiples, the analyst may not be accounting for differences in growth, size, or company-specific risk factors. If substantial adjustments are made, it may leave the impression that the "comparable" companies are really not that comparable to the subject company.

49. Sometimes differences in growth assumptions can explain large differences between values derived from the income approach and those from the market approach.

Addendum 3: Adjusting Market Multiples: The Final Decision is Still a Matter of Professional Judgment

1. Mathematical models and formulas to determine fundamental discounts to public company multiples still require professional judgment.

4.10 CHAPTER 9: ASSET APPROACH

- 1. Book value, which pertains to cost-basis accounting financial statements, is not fair market value.
- 2. The asset approach also is sometimes used in the valuation of very small businesses and/or professional practices where there is little or no practice goodwill.
- 3. Although the asset approach can be used in almost any valuation, it is seldom used in the valuation of operating companies. The time and costs involved in valuing individual tangible and intangible assets typically are not justified, because there is little, if any, increase in the accuracy of the valuation. The value of all tangible and intangible assets is captured, in aggregate, in the proper application of the income and market approaches. In many valuations, there is no real need to break out the amount of value associated with individual assets, including goodwill. However, the asset approach is sometimes used as a floor value. Other times it may be a value that is too high if the net asset values do not have income support as a going concern.
- 4. If the asset approach is used in valuing a minority interest of a closely held company, the value indication derived usually will have to be adjusted from *control* to *minority* and, depending on the facts and circumstances, from a *marketable* to a *nonmarketable* basis.
- 5. Notes to the financial statements often contain useful information concerning contingent liabilities.

4.11 CHAPTER 10: VALUATION DISCOUNTS AND PREMIUMS

- 1. Discounts and premiums may be applied at the *entity level* or *shareholder level* depending on whether the premium or discount is driven by factors affecting the entity as a whole, such as an environmental discount, or whether the driver is characteristic of a specific ownership interest.
- 2. Control premiums *quantify the value of the right to control the destiny of the company* and/or the ability to divert cash flows and value to the controlling ownership. Acquisition or strategic premiums *quantify the incremental value of a particular investment as viewed by a specific investor(s)*. Empirical evidence of the size of combined control and strategic premiums is available but does not separate the premiums into these components.

- 3. Frequently, control premiums have been overstated by the use of acquisition premium data that reflect synergistic and strategic premiums as a proxy.
- 4. Lack of control and marketability are not unrelated. A majority shareholder may be able to affect marketability in ways that a minority shareholder cannot by, for example, pursuing a sale, a merger, or an initial public offering. Thus, the two discounts, while separate, should be considered in conjunction.
- 5. From the point of view of the minority shareholder, the majority shareholder's ability to control can reduce or eliminate the return on the minority shareholder's investment.
- 6. Quantification of the amount of the discount for lack of control (or the minority discount) is difficult due to the lack of empirical evidence.
- 7. The Mergerstat data include synergistic and acquisition premiums along with the control premium, and segregation of these premiums is difficult.
- 8. The use of minority cash flows in the income approach produces a minority interest value. As discussed in Chapter 5, minority cash flows are those cash flows *without* any adjustments due to controlling shareholders' actions, such as excess compensation, rent payments, or perquisites.
- 9. Consistency is important. Whether you start with control cash flows or minority cash flows, it is important to apply the same methodology throughout your minority value engagements.
- 10. Marketability expresses the relative ease and promptness with which a security or commodity may be sold when desired, at a representative current price, without material concession in price merely because of the goal of a prompt sale.
- 11. While many experts agree, in theory, on the need for a discount for lack of marketability/liquidity on controlling interests in a privately held company, no direct empirical evidence is available to support such a discount. The initial public offering and restricted stock studies used to develop discounts for lack of marketability are based on minority interests, not controlling interests.
- 12. DLOM studies have historically been based on two types of analyses:
 - 1. Studies based on the difference between the initial public offering (IPO) price of a company and transactions in the same company's stock prior to the IPO. These are referred to as *IPO studies*.
 - 2. Studies that measure the difference between the private price of a restricted security and the publicly traded stock price of the same company. These are referred to as *restricted stock studies*.
- 13. To address the issue of valuing restricted stocks, the IRS issued Revenue Ruling 77-287 "to provide information and guidance to taxpayers, Internal Revenue Service personnel, and others concerned with the valuation, for Federal tax purposes, of securities that cannot be immediately resold because they are restricted from resale pursuant to Federal securities laws."
- 14. The QMDM represents continued theoretical development of the concept of the marketability discount. This method is gaining in visibility and use, and numerous appraisers have adopted some form of the framework for analyzing discounts that Mercer has presented.
- 15. In addition to the discounts for lack of control and marketability, other potential discounts may apply to a minority interest in a closely held company. Some

- analysts consider these discounts in the calculation of a discount or capitalization factor while others separately quantify and apply the discounts.
- 16. Restrictions under certain agreements limit the ability to sell or transfer ownership interests.
- 17. In valuing a closely held company, an adjustment for information access and reliability may be in order.
- 18. An ongoing disagreement between the IRS and many tax practitioners revolves around the treatment of the costs to liquidate the assets in estates.
- 19. A key person or thin management entity-level discount would be appropriate in the valuation of a closely held company where an owner or employee is responsible for generating a significant portion of the business's sales or profits. This key person may be a revenue generator, possess technical knowledge, or have close relationships with suppliers, customers, or banks.
- 20. Blockage discounts are based on the theory that, ordinarily, a large block of publicly traded stock cannot be sold as readily as a few shares of stock.
- 21. Blockage or market absorption discounts also can be considered when valuing other assets, such as real estate. In the valuation of a closely held real estate investment holding company, a discount for potential market absorption should be considered.
- 22. When a smaller closely held company is being compared to a larger publicly traded company, an adjustment for size may be appropriate.
- 23. Small companies often have limited access to capital, limited ability to weather a market downturn, limited resources to develop and market new products, and so on. Smaller companies also can have a higher cost of capital than larger companies.
- 24. Care should be exercised to avoid overlaps or "double discounting" with thin management discounts, small-company risk discounts, lack-of-diversification discounts, or others.

4.12 CHAPTER 11: REPORT WRITING

- 1. A detailed written report should provide the details necessary to permit another qualified analyst to use similar information and to understand the work done and the valuation conclusion reached.
- 2. Draft reports provided to attorneys or other appropriate parties are to be marked "draft" or "preliminary" and should not contain a signed certification.
- 3. Although many analysts often comply with USPAP as a general rule, many of the reports that analysts write are not conducted under the services specified by USPAP for compliance. Only the American Society of Appraisers requires its members to comply with USPAP.
- 4. In certain engagements, such as litigation, the analyst might not be granted access to the facilities. If so, the introduction section can explain this and also what was done to obtain the knowledge normally gained during a site visit.
- 5. Financial statement adjustments may be of two different types. Normalizing adjustments convert the statements into economic financial statements. Control adjustments reflect prerogatives of control and adjust the statement to conditions only the control interest may realize.

- 6. Analysts usually do not audit or perform reviews or any other assurance procedures on the historical financial information provided by the entity. They typically accept the information as accurate and state this in the assumptions.
- 7. Some analysts include the assumptions and limiting conditions in the engagement letter as well. See Appendix A of the sample valuation report for an example of assumptions and limiting conditions.

4.13 CHAPTER 12: BUSINESS VALUATION STANDARDS

- 1. The Internal Revenue Service has not officially adopted USPAP or any other organization's standard.
- 2. Terminology used in standards is not uniform across the professions performing appraisals. For example, USPAP Standard 3 discusses the "review" of another appraiser's work. To certified public accountants doing business valuation, the term "review" carries a meaning that is unique to the accounting profession and represents a level of service related to financial statements.
- 3. The pertinent sections of USPAP for the business appraiser include definitions, the preamble, the ethics rule, the record-keeping rule, the competency rule, the scope of work rule, the jurisdictional exception rule, the standards and standards rules, and applicable advisory opinions. Standard 9 covers development of a business appraisal, Standard 10 covers reporting, and Standard 3 covers appraisal review.
- 4. Certain engagements, such as deal pricing and litigation, require the analyst or appraiser to sign a nondisclosure agreement. The analyst must be comfortable that adherence to the nondisclosure agreement does not violate the record-keeping rule of USPAP.
- 5. "An appraiser must not allow assignment conditions to limit the scope of the work to such a degree that the assignment results are not credible in the context of the intended use. An appraiser must not allow the intended use of an assignment or a client's objectives to cause the assignment results to be biased." 5
- 6. For CPAs, the word *certify* has special meaning concerning attestation of financial information. Some CPAs will add a sentence in their report that they are not certifying any financial information but are adhering to the appraisal certification requirements of USPAP. In the business valuation standards of the AICPA, the word *certification* is replaced with *representation*.
- 7. The FASB provides guidance for how to measure fair value of financial and non-financial assets and liabilities under authoritative accounting pronouncements. Fair value measurement guidance provided by FASB is for financial statement purposes and should not be confused with fair value in dissenting shareholder cases that is determined according to state laws and court decisions in the respective states.

⁵Uniform Standards of Appraisal Practice (USPAP) 2016–2017, The Appraisal Foundation.

4.14 CHAPTER 13: VALUATION OF PASS-THROUGH ENTITIES

1. Depending on the characteristics of the company and ownership rights of the interest, valuation of a controlling versus a minority interest in a pass-through entity may require different approaches.

- 2. The Tax Court rejected many, if not most, of the reasons put forth by analysts for their deduction of taxes. Thus, if analysts are still providing these same reasons for the deduction of income taxes in their valuation reports, then they should either examine their reasoning or provide a better explanation as to why they believe such logic to be well founded.
- In theory, diligent application of each model with attention to the specific facts relating to the subject interest should result in fairly similar conclusions, no matter which model is used.
- 4. A clear trend supported by the literature on the valuation of S corporations and by various models has been to value the shares from the perspective of the *investor*. This includes *following the cash all the way into the investor's pockets*. This approach makes sense, since it is common knowledge that investors take taxes into consideration when pricing any investment. More recently, some authors suggest taking additional care to understand the taxes—investor-level as well as entity-level—embedded in the discount rates used to value pass-through entities and adjusting those rates accordingly.
- 5. The vast majority of the discussion of the existence of an "S corporation premium" is under the fair market value standard in the context of estate and gift taxes. The perspective would be the same as the marketplace, which assumes a buyer would consider the flow of benefits from ownership of the interest.
- 6. Nearly everyone agrees that tax benefits at the corporate level can create share-holder value; however, the issue of whether tax benefits enjoyed at the election of the shareholder also create value has historically been the subject of some debate.
- 7. Relative to S corporations, privately held C corporations have a greater incentive to payout earnings to owners as a bonus in order to lower their EBT. As such, in comparing the multiples of S corporations and C corporations, the sales multiple is the more reliable measure. Privately held C corporations generally bonus out salaries rather than pay dividends. Although the ability to distribute cash flow through bonuses is limited by tax regulations on excessive compensation, the practice contributes to the notion that double taxation for privately held C corporations is myth rather than reality.
- 8. When using market data for transaction pricing for either S or C corporations, analysts must be careful to understand the data and at a minimum, identify the following characteristics of the transaction:
 - Asset or stock sale
 - Assets transacted
 - S or C corporation
 - Size of the transaction
 - Capital structure and liabilities assumed

Failure to take these factors into consideration when using market data to value a pass-through entity could result in inappropriate valuation conclusions.

9. There is no conclusive market transactional evidence that S corporation values are different from private C corporation values on a control basis. However, if

- the analyst has used publicly traded C corporation data to value the S corporation, if possible the differences between the expectations of the investor in a public C corporation and a private S corporation should be taken into consideration.
- 10. Many analysts still prefer simpler, more qualitative methods to valuing S corporations than the models presented here. Assuming the analysis is well conceived, qualitative methods are acceptable.
- 11. Some analysts have interpreted Treharne's articles as recommending consideration of all three scenarios for each valuation project. However, Treharne presented the three scenarios solely for the purpose of emphasizing the possible range of value conclusions attributed to the three possible input scenarios. Typically, all three scenarios do not need to be considered in each valuation project.
- 12. Each of the four theories considers the following issues:
 - Amount and timing of distributions
 - Retained net income
 - Holding period and exit strategy
 - Tax rates—personal, corporate, and capital gains
 - Further effect of minority or marketability discounts
 - Possible ability to participate in step-up-of-basis transaction
- 13. It is important to note that there are still many analysts who prefer simpler, more qualitative methods to valuing S corporations than the models presented here. Assuming a well-thought-out analysis, this is acceptable.

4.15 CHAPTER 14: ESTATE, GIFT, AND INCOME TAX VALUATIONS

- 1. Often events that would otherwise affect a subject company's value occur subsequent to the valuation date. Such events generally should not be considered for purposes of estate and gift tax valuations. The key to determining what events should be considered is what facts were known or knowable as of the valuation date.
- 2. Many analysts make the mistake of focusing on a subject company's past historical performance as the primary determinant of value. The expectation of the company's future performance as of the valuation date is what determines value. Past performance is only relevant to the extent that it is indicative of the company's future performance.
- 3. Value is dependent on investors' expectations of a company's future earnings capacity. If an unprofitable operation can be discontinued without adversely affecting the company's other lines of business, then the future earnings capacity (and hence the value) of the remaining lines of business may be materially greater than if the values of all operating lines were aggregated. In other words, the sum of some of the parts may be greater than the whole.
- 4. The definition of dividend-paying capacity is equivalent to equity net cash flows (i.e., those cash flows available to pay out to equity holders [in the form of dividends] after funding operations of the business).⁶

⁶International Glossary of Business Valuation Terms (The C.L.A.R.E.N.C.E. Glossary Project, comprised of the following professional organizations: American Institute of Certified Public Accountants, American Society of Appraisers, Canadian Institute of Chartered Business Valuators, National Association of Certified Valuation Analysts, and the Institute of Business Appraisers, 2001).

5. Many inexperienced analysts fail to consider the use of the market approach/ guideline public company method because they believe that publicly traded companies are too large to be truly comparable. While the size of many public companies may eliminate them as comparables, the size of some public companies may approximate that of the closely held company being valued, particularly in certain industries, such as high technology, for which there have been initial public offerings for companies with relatively small market capitalizations.

- 6. Revenue Ruling 59-60 does not specifically address the use of the market approach/guideline company transactions method in valuing closely held companies, as such data were not widely available at the date of publication of the Revenue Ruling. However, the guidelines relating to comparability of the business lines and consideration of other relevant factors presented in Revenue Ruling 59-60 for the application of the guideline public company method may be applicable to the guideline company transactions method as well.
- 7. Revenue Ruling 59-60 supports the use of an asset approach for valuing investment or holding companies. Therefore, use of an asset approach when valuing family limited partnerships and limited liability companies (LLCs) with similar characteristics is considered reasonable in view of this ruling.
- 8. Inexperienced analysts often make the mistake of arbitrarily averaging each of the various valuation approaches/methodologies used in valuing a closely held company. For example, if three approaches are used, each approach may be assigned an equal one-third weighting routinely. As noted in Revenue Ruling 59-60, such practice would be inappropriate. Rather, each valuation is subject to particular facts and circumstances, and these must be considered in selecting the most appropriate approach(es) and level of reliance when determining the final estimate of value.

4.16 CHAPTER 15: VALUATION OF FAMILY LIMITED PARTNERSHIPS

- 1. Once a valuation analyst has a solid understanding of the bundle of rights, he or she is better prepared to determine how to capture their addition to or detriment from value in the subject's benefit stream, rate of return, discount applied to enterprise value, or a combination of these. By performing this analysis, the valuation expert will obtain a picture not only of the rights that exist but, more important, of those rights that do not exist.
- If assets are not transferred upon formation in return for the same percentage of partnership interest in relation to the assets, there can be an unintended gift of the value differential between the assets transferred and the interest received.
- 3. Term restriction is important from a valuation perspective because it defines the inability of the limited partners to receive a return on their investment prior to the completion of the partnership term.
- 4. This type of provision provides rights for limited partners in certain circumstances that may enable them to affect some operations of the partnership. As such, the impact of this type of provision is partially dependent on the size of the limited partnership interest being valued.

- 5. If the provisions in the agreement are anything other than fair market value between family members, it may be disregarded under § 2703.
- 6. Most partnership agreements have a clearly stated restriction on transferability of partnership interests, primarily to protect all partners from finding themselves legally bound to a partnership with individuals not of their choice. From a valuation perspective, such restrictions on transferability may have a material impact on the degree of discount for lack of control and lack of marketability. However, if other provisions modify the transferability restrictions, they may provide a mitigating effect on the depth of the discount for lack of control and lack of marketability.
- 7. All contributions are to be credited to the partners' accounts to avoid the "gift on formation" issues previously discussed.
- 8. The provisions concerning amendments to the partnership agreement provide a substantial level of authority to the general partner with input by the limited partners. However, many partnership agreements provide for a "power of attorney" clause whereby the limited partners specifically provide the authority for the general partner to act on their behalf. In addition, a restriction on transferability provides some level of protection to the limited partners regarding possible changes in partnership management of the partnership. These restrictions may allow for some level of discount for lack of control when valuing a general partner interest.
- 9. Like the provision for the general partner capital accounts, this provision makes it clear that all contributions are to be credited to the partners' account to avoid the "gift on formation" issues previously discussed.
- 10. One of the benefits to a limited partnership structure is the protection afforded the limited partners from the debts and obligations of the partnership or other partners.
- 11. The above provisions are the foundation for selecting appropriate discounts for lack of control and lack of marketability for two reasons:
 - 1. A limited partner, by definition, does not have any right to manage or control the partnership, thus eliminating his or her ability to determine the amount and timing of any distributions or asset liquidations of the partnership. This effectively eliminates some of the sources of return on the partner's investment.
 - 2. In addition, the inability to readily transfer the interest or withdraw from the partnership eliminates the other avenue for a limited partner to receive a return on his or her investment.
- 12. To avoid the negative impact § 2704(a) can have on the estate tax value of a limited partnership interest, it is better if the limited partner does not own a general interest in the partnership at death. Alternatively, the limited partner can gift all of his or her limited interest before he or she dies. The general partner can also be a separate entity.
- 13. If fair market value is the appropriate standard of value, factors influencing the pricing of partnership interests in secondary transactions may be considered.
- 14. Whether an asset is income producing or not will impact value. For instance, if an FLP is holding undeveloped land instead of an income-producing property, the value of an investment in the FLP will be influenced by the inability of the undeveloped land to generate a return to partners other than through ongoing appreciation and possible liquidation of the asset.
- 15. The closed-end funds to be used as a source of pricing data should match as closely as possible the specific portfolio structure of the FLP. For instance, if

- the FLP holds only technology stock and some blue chips, the closed-end funds selected should have a similar asset mix to appropriately reflect the market perception of risk for the type of portfolio being held by the FLP.
- 16. As a point of reference, publicly traded open-end mutual funds issue and redeem shares directly to and from the fund itself. Consequently, if the demand for an open-end fund increases, the fund issues more shares. An open-end mutual fund normally prices unit purchases and redemptions at the transaction cost adjusted net asset value. Therefore, shares in mutual funds will continually be diluted as the funds grow with purchases or will be more concentrated in ownership as the funds shrink with sales. Typically, they do not experience the relative price fluctuations that closed-end funds do.
- 17. Analysis of closed-end funds with similar investment characteristics to the subject FLP can provide an indication of the adjustment to net asset value that the market would require.
- 18. For closed-end funds that are actively publicly traded, the difference between the trading price and net asset value has nothing to do with marketability. Funds that are thinly traded would be less reliable indicators of market dynamics.
- 19. The derived discount from net asset value (NAV) can be viewed in two ways. The first is as a discount as follows:

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NAV \times (1 - D) = Value Where: D = Discount \$1,000,000 \times (1 - .20) = \$800,000
Or it can be viewed as a market multiple as follows: NAV \times Multiple = Value \$1,000,000 \times .80 = \$800,000
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4.17 CHAPTER 16: UMMARY OF TAX COURT CASE VALUATION ISSUES

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4.18 CHAPTER 17: SHAREHOLDER DISPUTES

- 1. State statutes and judicial precedent control this area of valuation. Although analysts should not be acting as attorneys, it is important that they become generally familiar with the statutes and case law in the jurisdiction in which the lawsuit has been filed. The analyst should consult with legal counsel to ensure that they have a proper understanding of jurisdictional precedent, specifically as it relates to their valuation as well as any legal interpretations.
- 2. Shareholder dispute cases typically arise under two different state statutes, dissenting shareholder actions and minority oppression (dissolution) actions.
- 3. In both dissenting and oppressed shareholder disputes, the statutes are clear—the standard of value is *fair value* in almost all states.
- 4. Not only is the standard of value important in determining the methodology that will be performed and the discounts and premiums that will or will not be applied, but the courts have also shown that they do not equate fair value and fair market value.

- 5. The attorney should be consulted regarding the appropriate standard of value. That may mean the attorney provides statutes and case law requesting assistance from the valuation expert interpreting it. Nevertheless, the standard of value and definition of value, if known, should be stated in the engagement letter to avoid a potential misunderstanding.
- 6. When preparing a fair value analysis, the valuation analyst should consult the attorney on the engagement who will consider the state statute and case law to establish the valuation date, as this date influences the information that may be considered in conjunction with the valuation.
- 7. Valuation experts are vital in these cases. Courts look to the valuation analyst to provide a well-reasoned, objective valuation to aid them in their findings. To do so requires that analysts maintain objectivity and independence. Analysts present their professional opinions rather than their clients'.
- 8. Currently, the three approaches to value—market, income, and asset—are all acceptable in the shareholder dispute arena, although it is important to confer with the attorney in the particular jurisdiction. Methodologies (or preferred methods) vary from one jurisdiction to another.
- 9. Various courts interpret the methodologies differently and refer to commonly known methods by other names.

4.19 CHAPTER 18: EMPLOYEE STOCK OWNERSHIP PLANS

- 1. In an S corporation owned 100 percent by an ESOP, cash retention can be significant, as no payments are required for federal income taxes on its earnings.
- 2. The valuation analyst's independence and objectivity is not impaired should he or she participate in the process of analyzing transaction proposals and counterproposals in the negotiations to assist the trustee.
- 3. An independent appraiser providing valuation services and a valuation report to a plan trustee of an ESOP is not a fiduciary. This is not to be confused with an independent plan trustee fiduciary who is independently providing a valuation.
- 4. As a practical matter, and assuming the sponsoring company is paying the fee, it is appropriate to have the trustee of the ESOP engage the analyst and to have an officer of the sponsoring company sign that same engagement as obligor for the analyst's fee.
- 5. A thorough understanding of the source and application of loan proceeds is necessary, as the analyst's valuation analysis will treat the usage of ESOP loan proceeds and debt repayment differently from other non-ESOP debt obligations.
- 6. A common misconception of sellers to the ESOP is that after the ESOP share transaction, the share earnings and operating benefits continue to accrue to the former shareholder in much the same manner as before the ESOP made the acquisition of those shares.
- 7. When an ESOP owns Subchapter S shares, it is the ESOP that is exempt from federal taxation as a qualified plan under ERISA. The shares themselves have no such exemptions; thus, the tax-exempt status is only applicable while those shares are held by the ESOP as a qualified plan asset.
- 8. The sponsoring company's ERISA-required buyback of ESOP shares (the put obligation) is not embraced by GAAP, the accounting community, or appraisers as a reportable, financial-statement-contingent liability.

9. As the ESOP owns a greater percentage of the sponsoring company's stock and the plan ages, the repurchase obligation becomes more material to valuation considerations.

- 10. In an ESOP environment, the default discount period convention is end-of-year.
- 11. Anticipated debt leverage to an initial ESOP purchase of shares is not considered in the initial valuation of those shares, as the debt leverage event did not exist as of the date of valuation.
- 12. Example of an annotated subsequent event disclosure: six weeks after the company's fiscal year end, the company's primary manufacturing plant suffered a catastrophic uninsured tsunami loss.
- 13. While the put right does not create a ready market for the ESOP shares, it does create a mechanism for potential marketability that can significantly reduce an adjustment for a lack of marketability in a private company.
- 14. Often in a 100 percent-owned ESOP company, the only control/liquidity adjustment required is for the put right.

4.20 CHAPTER 19: VALUATION IN THE DIVORCE SETTING

- The analyst must know the specific definition of *value* that is to be used in determining a value in a divorce setting. Failure to do so could result in the valuation being excluded, discounted, or ignored by the judge if challenged. The attorney should provide guidance on the law to the analyst.
- 2. The various definitions and components of *goodwill* often cause confusion. It is important to fully understand the term's meaning in the context it is being used.
- 3. Since state laws are so diverse, the analyst must constantly be alert to not only the espoused standard of value in a particular jurisdiction, but also the variations imposed by judicial decisions. Consultation with an attorney is advised.
- 4. *Personal goodwill* is that goodwill that attaches to the personal and the personal efforts of the individual. It is generally considered to be difficult to transfer, if at all. *Entity goodwill* is the goodwill that attaches to the business enterprise.
- 5. If analysts present their case well and support the allocations with sound logic, the court will be more likely to accept their value conclusions as a reasonable approximation of personal versus entity goodwill.
- 6. The analyst should not be fooled into thinking there is automatically entity goodwill associated with a particular factor such as location without looking at the facts and circumstances of the case at hand.
- 7. Analysts should consider the number of employees, the job titles and job descriptions, the pay scale, the length of service, and the nature of their relationships to the clients.
- 8. The issue of nonowner professionals and their impact on value is one that moves beyond the issue of separation of personal and entity goodwill. In determining the fair market value of a professional practice, the issue of control of clients, patients, and customers relates to the transferable value of the practice before consideration of personal and entity goodwill of the owner.

- 9. The valuation analyst should consider the issue of a trifurcation of goodwill when valuing a business interest in a divorce case and discuss the pros and cons with the attorney prior to concluding on a value for the subject business interest.
- 10. The arguments set forth by proponents of a personal goodwill element for commercial businesses sound similar to a key-person discount. However, in reality, personal goodwill, even in a commercial business, is separate and distinguishable from a key-person discount. A key-person discount is an entity-level discount that purports to measure the loss of value to a business as a result of a loss of a particular person.
- 11. The analyst should be aware of the double-dipping concept and its application to the jurisdiction in which the divorce case is being litigated and be prepared to provide an analysis to the court of the application of the concept.
- 12. Notwithstanding the fact that compliance with an appropriate business valuation standard is not a requirement of a court for an acceptable value for divorce purposes, the cross-examining attorney can nevertheless use noncompliance as a tool for impeachment.
- 13. Noncompliance to standards does not necessarily invalidate the valuation report for the court (that decision is up to the judge), but it can provide fodder for cross-examination.

4.21 CHAPTER 20: VALUATION ISSUES IN SMALL BUSINESSES

- Small businesses tend to have lower-quality financial statements that are less likely to have been prepared by an outside accountant. Their statements tend to be structured around tax reporting requirements rather than oriented to stockholder disclosure, as in larger companies.
- 2. Adjustments from cash-basis accounting to accrual-basis accounting can be made, as necessary, for valuation assignments.
- 3. The characteristics of small businesses tend to result in overall higher risk than is found in larger businesses. These risk characteristics can be extreme in the smallest of businesses. Risk tends to increase as size decreases.
- 4. It may be necessary to make certain adjustments to improve comparability of the subject company to industry norms, publicly traded companies, or companies involved in market transactions considered in the valuation process.
- 5. When valuing a control interest in a small business, it is appropriate to adjust for discretionary items. When valuing a minority interest, it may not be appropriate to adjust for discretionary items because the owner of a minority interest is not in a position to change these items. However, a minority shareholder may be in a position to force an adjustment as an oppressed shareholder. In this regard, one may need to consider the external stakeholders reviewing the valuation. In certain litigation venues, many triers of fact still like to see a traditional valuation of the entire 100 percent interest with discounts applied for lack of marketability and lack of control, for an interest without attributes of control. Also, operational control issues may have an impact on how the analyst values the interest.

6. Business brokers can provide insight into the qualitative factors being considered in a particular market.

- 7. Earnings in the latest 12 months and average earnings in recent years tend to be given the most weight in establishing prices for the smallest businesses. Capitalization of earnings/cash flow is often an appropriate method for valuing these small businesses.
- 8. Many analysts assume that the guideline public company method is never applicable to small businesses. For the mom-and-pop very small business, this is often a safe assumption. However, data are available for a large number of publicly traded companies with market capitalization below \$50 million, which may be a reasonable range of size for comparability with some small businesses.
- 9. The analyst must exercise caution in using transaction databases because they define variables in different ways.
- 10. *Revenue* and *discretionary earnings* are two of the most common multiples used in the guideline company transaction method.
- 11. Value indications derived from the guideline company transaction method are on a control basis.
- 12. The AICPA business valuation standards, *Statements on Standards for Valuation Services VS Section 100 (SSVS)* note that a rule of thumb is "technically not a valuation method.... A rule of thumb is typically a reasonableness check against other methods used and should generally not be used as the only method to estimate the value of the subject interest."
- 13. The excess earnings/cash flow method is widely used for small businesses, but analysts frequently misuse it.

4.22 CHAPTER 21: VALUATION ISSUES IN PROFESSIONAL PRACTICES

- 1. Many professional practices obtain most of their patients or clients through referrals, based on the reputation of specific professionals.
- 2. In some jurisdictions, an important issue in valuing professional practices is distinguishing between the goodwill that is solely attributable to the professional (and difficult to transfer) and the goodwill that is attributable to the practice.
- 3. Litigation (including disputes among principals and marital dissolutions) and transactions (including the sale of a practice, an associate buying in, and buy-sell formulas) account for a large portion of valuation engagements.
- 4. Goodwill may be the primary intangible asset found in professional practices, but the definition of goodwill differs based on the purpose of the valuation.
- 5. When a professional practice is being valued for transaction or litigation purposes, it may be important to identify professional and practice goodwill separately and to discuss the likelihood that a portion of the professional goodwill can be transferred in a transaction.
- 6. The professional's earnings and/or the practice's economic income should be calculated in the same manner as the comparative compensation data.
- 7. In a small professional practice, value may be greater if a successor for the key professional is in place. Bringing in an associate and introducing the associate

- to clients or patients may facilitate the transfer of some "professional goodwill" and may increase the price received by the exiting professional.
- 8. When valuing professional practices, it is important to analyze and make appropriate adjustments to the financial statements. The widespread use of cash-basis accounting may require a number of adjustments.
- 9. If using a cash flow to equity benefit stream, there is no need to adjust to accrual-basis financial reporting. Professional practices are generally valued on cash flow. Balance sheet adjustments are only relevant to the extent they affect cash flow or for the determination of nonoperating assets or debt.
- 10. If the practice owns material amounts of nonoperating assets, such as art collections and antiques in excess of what is customary in the decor of comparable offices, it may be necessary to value these assets separately from practice operations.
- 11. If the economic benefits stream being discounted or capitalized is pretax earnings or pre-tax earnings plus owners' compensation and benefits, the discount rate or the capitalization rate should be higher than if the benefits stream is net cash flow—after tax.
- 12. Guideline company transactions sometimes are used as a reasonableness test for values obtained by other methods.
- 13. The usefulness of past transactions in the subject company often is limited by the structure of the transactions. Post-transaction compensation to the seller is often a significant economic benefit. In prior transactions, it may be difficult to distinguish the portion of value attributed to this benefit compared to the value attributable to the practice.

In some cases the withdrawal terms of a shareholder or partnership agreement may provide buyout terms that are artificially low, as an incentive not to leave the practice.

14. Although rules of thumb may provide insight on the value of a professional practice, it is usually appropriate to use them only for reasonableness tests of the value conclusion.

4.23 CHAPTER 22: REASONABLE COMPENSATION

- 1. Treas. Reg. § 1.162–7(b)(3) defines reasonable compensation as the "amount that would ordinarily be paid for like services by like organizations in like circumstances."
- 2. If the covered employee could receive all or part of the compensation without attaining the performance goals, such compensation would not qualify as performance-based compensation.
- 3. When bonuses paid to individuals are not contingent on any identified factors, the analyst may need to evaluate such payments further to confirm that they are not actually distributions disguised as compensation.
- 4. When catch-up pay is being deducted, for tax purposes especially, the business should have documentation from prior years of the amount of undercompensation and the intent of repayment.

5. Upon completion of analysis, consider whether the level of compensation would be acceptable to all parties if the transaction were in an arm's-length relationship; if so, the conclusion is likely fair and reasonable.

4.24 CHAPTER 23: THE VALUATOR AS EXPERT WITNESS

- 1. An expert must consciously avoid being an advocate; he or she must be careful not to alter the objectivity of a valuation conclusion simply in order to advance the client's interest. The only thing that should be advocated by the expert is his or her opinion—not the client's position.
- 2. An important caveat is that when the expert is formulating questions in the courtroom for counsel to put to the opposing expert in cross-examination, it should not appear to the judge that the expert is part of the client's or lawyer's litigation team. If the valuator is perceived as being a member of the team, his or her perceived independence and objectivity may be questioned by the judge.
- 3. Once certain evidence has been excluded by a *Daubert* motion because it fails to meet the relevancy and reliability standard, it will likely be challenged when reintroduced in another trial. Even though a *Daubert* motion is not binding on other courts of law, if something was found untrustworthy by one court, other judges may choose to follow that precedent.
- 4. The expert's role is to the assist the court with respect to technical issues that are beyond the knowledge of the layperson and to explain how the expert arrived at his or her conclusions.

4.25 CHAPTER 24: FAIR VALUE MEASUREMENT AND THE VALUATION OF INTANGIBLE ASSETS

- 1. Intangible assets receiving legal protection become intellectual property, which may be generally categorized into five types: patents, copyrights, trade name (trademarks and trade dress), trade secrets, and know-how.
- 2. A *business combination* is a transaction or other event in which an acquirer obtains control of one or more businesses. Transactions sometimes referred to as true mergers or mergers of equals also are business combinations.⁷
- 3. Since return requirements increase as risk increases and since intangible assets are usually inherently more risky for a company than tangible assets, it is reasonable to conclude that the returns expected on intangible assets typically will be at or above the average rate of return (discount rate) for the company as a whole.
- 4. Some analysts have advocated that the direct and indirect costs be adjusted to reflect developer's profit and entrepreneurial incentive/opportunity cost. Application of these adjustments is currently inconsistent in the valuation profession.
- The royalty is typically expressed as a pre-tax percentage of revenues. The relief from royalty method relies on two general types of inputs: the royalty rate and the revenue forecast.

⁷Financial Accounting Standards Board, Accounting Standards Codification (2015), ASC 805-20-20 Glossary.

- 6. The risk premium assessed to a new product launch should decrease as a project successfully proceeds through its continuum of development because the uncertainty related to each subsequent stage typically diminishes.
- 7. The valuation method known as the *multiperiod excess-earnings method* (MPEEM) is generally reserved for the value drivers, the intangible assets with the most direct relationship to the revenue and cash flow streams of an enterprise.
- 8. The MPEEM measures the present value of the future earnings to be generated during the remaining lives of the subject assets.
- 9. The weighted average return on assets (WARA) calculation employs the rate of return for each asset weighted according to its fair value relative to the whole. The WARA should approximate the overall WACC for the business.
- 10. By its nature, goodwill is the riskiest asset of the group, and therefore should require a return much higher than the overall business return, and at times, even higher than venture capital returns.
- 11. The valuation of noncompete agreements is typically performed by preparing two discounted cash flow models—one that is based on the market participant business enterprise analysis and assumes a noncompete agreement is in place and a second that assumes that the noncompete agreement is not in place.
- 12. Including such tax effects in the valuation process is more common in the income approach, but is not typical in the market approach, since any tax benefit should be factored into the quoted market price. The cost approach may be prepared pre-tax, so no adjustment is required.
- 13. The tax amortization benefit is calculated as the present value of the tax savings resulting from the 15-year amortization of the asset under Internal Revenue Code Section 197, assuming market participants in the United States.
- 14. The tax amortization benefit calculation may be expressed in the following formula:

$$AB = PVCF \times (n/(n - ((PV(Dr, n, -1) \times (1 + Dr)^{.5}) \times T)) - 1)$$

Where:

AB = Amortization benefit

PVCF = Present value of cash flows from the asset

n = 15-year amortization period in the US

Dr = Discount rate

 $PV(Dr,n, -1) \times (1 + Dr) ^ 0.5 = Present value of an annuity of $1 over 15 years, at the discount rate, using a midyear convention$

T = Tax rate

- 15. Under the acquisition method, IPR&D is capitalized if it is acquired as part of a business combination, rather than expensed at the acquisition date.
- 16. The FASB is continually updating accounting standards and has made many changes related to fair value accounting over the years. It is imperative that analysts be familiar with the most up-to-date guidance before preparing an analysis for fair value financial reporting.
- 17. Goodwill impairment potentially exists when the carrying value of the reporting unit, including goodwill, exceeds the fair value of the reporting unit.
- 18. A present value technique is often the best available technique with which to estimate the fair value of a group of assets (such as a reporting unit).

19. The second step of the goodwill impairment test is triggered if the carrying value of the reporting unit, including goodwill, exceeds the fair value of the reporting unit.

- 20. The second step requires performing what amounts to an acquisition method analysis—as though a business combination were consummated on the date of the impairment test.
- 21. In most applications, the appropriate rate of return for determining the business enterprise value is the weighted average cost of capital (WACC). The WACC is the weighted average of the return on equity capital and the return on debt capital. The rate must be a rate that market participants would use in discounting enterprise cash flows.
- 22. The ASC specifically prohibits the recognition of the assembled workforce as an intangible asset apart from goodwill.
- 23. The value of the assembled workforce is represented by the assemblage cost avoided. Therefore, the cost approach is the most appropriate valuation technique to value this asset.
- 24. Trade names and trademarks must be considered individually to determine their remaining useful life. Trade names and trademarks that are associated with a company name or logo (e.g., McDonald's) typically have indefinite lives. Many product trade names and trademarks also will have an indefinite life if no reasonable estimate can be made of the end of the product life (e.g., Coca-Cola). However, the analyst must be careful to find out whether there is a planned phase-out of a product or ascertain whether it can be estimated with reasonable certainty that a name will lose value or be abandoned over time. In such a case, a finite life is suggested and, therefore, an amortization period is warranted. For tax purposes, generally all intangibles are amortizable over a 15-year life.

4.26 CHAPTER 25: MARKETING, MANAGING, AND MAKING MONEY IN A VALUATION SERVICES GROUP

Addendum 1: Marketing, Managing, and Making Money in a Valuation Services Group

- Some practices whose revenues are based primarily on fixed fees make the mistake of failing to maintain or to evaluate time records and other information about efficiency and profitability that would indicate problem areas that need corrective action.
- 2. It is desirable that staff chargeable hours for engagements should, on average, result in billings equal to 90 percent or more of the recorded hours.
- 3. On average, a group practice should be charging billable hours to engagements for more than 70 percent of the standard hours available for work.
- 4. Despite the higher profits offered by litigation services, some practitioners find that being an expert witness is disruptive to the processes needed to direct a practice that must deliver valuation reports on a regular basis.
- 5. Since a business valuation engagement is a consulting project, proactive planning and control is key to maximization of the efficiency, quality, and profitability of the work process and product.

- 6. Resource flexibility is a rich area for practice leaders to explore as they seek to smooth the peaks and valleys of the workflow.
- 7. Unless the practice has a culture toward quality and client value, there is less chance for good economics, at least for any sustained period of time.
- 8. Litigation services engagements in particular need an organized and disciplined approach because frequently the initial engagement criteria are augmented and revised over the life of the project. It is not unusual at the start of some litigation service engagements that the engagement criteria are vague and specific tasks are undefined.
- 9. A practice may not want to accept engagements for individuals (as opposed to companies) as clients without receiving substantial retainers.
- 10. In most situations, if you are good enough to be engaged, you are good enough to be paid a portion of the fee in advance.
- 11. Work plans and budgets, where appropriate, can be valuable tools that aid in the supervision and control of the engagement team, and can help in obtaining efficiency on the job. These can be detailed or general and in writing or oral.
- 12. Sometimes the best approach to take with an engagement that is floundering economically is to take the practice's best people and put them on the job to finish it up.
- 13. The old adage "People do what you inspect, not what you expect" applies to valuation engagements, for team members may not know or admit on a timely basis that they are off track about the direction their work is headed.
- 14. A very general rule of thumb for frequency of inspection by a practice leader or engagement manager is that the work of novices should be reviewed every two hours or so. The work of all other professionals should be inspected on a time interval of three hours, increasing for each year of their experience. This is particularly affected by the type and complexity of the engagement, the staff person, and the practice leader. Some senior analysts require only periodic discussions of the engagement progress and issues.
- 15. Preparing a work plan and budget (whether written or oral) for known tasks and obtaining approval aids the client and the attorney to understand the likely fee levels required.
- 16. Do not assume anything without frequent and clear communication with the client and the client's attorney.

4.27 CHAPTER 26: BUSINESS DAMAGES

- 1. Although financial experts are usually not attorneys and are not expected by their professional standards to know the law, attorneys frequently choose experts who have some knowledge of the law that applies to a particular litigation matter.
- Experts should communicate with legal counsel regarding statutory or legal standards as well as any contractual definitions that may affect measures of business damages.
- 3. Rather than use the term *causation* as a standalone term, financial experts should consider using the term *loss causation* or *economic loss causation* when addressing the issue of how, and to what extent, the damages computed were caused by the alleged wrongful conduct as opposed to other unrelated factors.

4. Although it may be appropriate for an expert to assume legal liability, it is not appropriate for an expert to simply assume loss causation, concluding that the results of a calculation are damages, without considering other contributing factors.

- 5. The concept of *economic loss causation* makes sense from an economic perspective given that a damages award is intended to put a party in the position it would have been in had the alleged wrongful conduct not occurred.
- 6. Establishing reasonable certainty involves rigorous analysis, of which the identification and testing of key assumptions may be an important part.
- 7. Damages calculations should only include damages caused by the wrongful conduct. Such calculations should not include as damages any losses by a plaintiff due to its own action or inaction.
- 8. Although *Daubert* involved experts on highly technical medical issues, the court set forth four criteria by which a trial judge could evaluate the reliability of all expert testimony.
- 9. The methodology to estimate what revenue would have been is often the most critical assessment in a lost profits calculation, as the rest of the computation is often revenue- (or volume-) dependent.
- 10. Cost analysis is an important element of a damages calculation. Identification of incremental expenses may be complex. Not all costs are simply either fixed or variable. And all costs, over the long term, of course, are variable. One must be prepared to conduct detailed financial analysis to support the cost estimation.
- 11. One of the most challenging aspects of a damages calculation is determining how far into the future to project the ongoing profits lost by the plaintiff or the gains realized by the defendant. The period of recovery depends on the facts and circumstances of the case and on the consideration of reasonable certainty and economic loss causation.
- 12. Using hindsight, the fact that an event ultimately took place does not mean that it was reasonably foreseeable as of the valuation date.
- 13. The purpose of compensatory damages is to make the plaintiff whole. That is, the plaintiff should receive no more and no less than is necessary to put it in the position it would have been in had the wrongful conduct not occurred, and under the premise that the plaintiff acted to mitigate any losses.
- 14. In many jurisdictions, the law mandates the treatment of prejudgment interest, often by prescribing a statutory interest rate, generally based on simple rather than compound interest calculations.
- 15. In a reasonable royalty analysis, establishing the date of the hypothetical negotiation is an important first step. The financial expert should carefully consider when infringement first occurred and the parties that would have been involved.
- 16. In evaluating the comparability of existing license agreements in a hypothetical negotiation analysis, the financial expert should carefully consider how terms of the agreements and the economic conditions compare to those of the hypothetical license. Factors such as additional rights being included or licenses resulting from settlement of litigation may impair comparability and should be accounted for.

4.28 CHAPTER 27: OTHER VALUATION SERVICE AREAS

4.28.1 A: Valuations for Public Companies and/or Financial Reporting

- 1. The increasing importance of intangible assets and intellectual property to public companies' financial positions and strategic profiles also increases the need for valuation services.
- 2. Unlike most other valuation assignments, the need for public company valuation services is often dictated by generally accepted accounting principles (GAAP).
- 3. The standard of value used most often in financial reporting valuations is fair value. This is different from the "fair value" used in shareholder disputes.
- 4. When engaged to provide an opinion regarding the fair value of a particular public company's assets or liabilities, it is important to confirm with the company's auditor the exact definition (and interpretation) of fair value to be utilized and to clearly identify which items are to be valued.
- 5. While a public corporation's traded stock has a readily determinable value and its options may be publicly traded, distinct differences between employee stock options and publicly traded stock options influence their value. Also, corporations may grant employee stock options on shares that are not publicly traded, including shares in subsidiaries and shares with voting rights different from those of the publicly traded stock.
- 6. In certain businesses, the lines are blurred between the intangible assets and income-producing real estate. Some examples include hotels, motels, hospitals, and skilled nursing centers. By performing a purchase price allocation, the analyst can separate intangible assets from the real property. The client can then amortize intangibles over a much shorter life than the real property.
- 7. Clients typically are not versed in the differences among standards of value, so early communication and active listening are the keys to a successful engagement.

4.28.2 B: Valuation Issues in Buy-Sell Agreements

- The battles that accompany these buy-sell agreements often occur at a time when the company needs most to be projecting assurances to its employees and customers. These stressful situations can disrupt operations and ultimately serve to reduce the very value over which the owners are at odds.
- 2. Every closely held business owner should have a buy-sell agreement with his or her business partners/shareholders. Doing so can help avoid potential costly litigation should one owner desire to sell his or her ownership interest.
- 3. Shareholders who have signed agreements that value the company's stock at something less than fair market value may find themselves in the unfortunate position of having transferred the stock for the price set by the agreement, only to find that the IRS values it at something greater. This may result in an unexpected tax liability.
- 4. If a buy-sell agreement entered into after October 8, 1990, contains a clause that would value the stock at less than fair market value, it will be disregarded for tax purposes.

5. A buy-sell agreement can set the ground rules for any matter the owners want to include. For this reason, there is no "one size fits all" when it comes to shareholder agreements. An owner who signs a "cookie-cutter" buy-sell agreement is practically assured of disagreement and misunderstanding down the road. If you have seen one buy-sell agreement, you have seen one buy-sell agreement.

- 6. Rarely do formulas result in "easy" solutions when the time comes to put them into practice.
- 7. Most disputes that arise as a result of a triggering event do so because the agreement is either unclear or misunderstood by the parties involved. Unfortunately, this is also the worst time to try to resolve such a dispute; it's better to be in the position of making these decisions when the parties are amicable.

4.28.3 C: Valuing Debt

- 1. The value of a convertible bond is a function of the value of the bond as a straight debt instrument plus the value of the conversion feature.
- 2. Since a bond with a long period until maturity may be more volatile than a bond that will mature in the near future, the bond with the longer term to maturity usually has a higher discount rate than the bond with the shorter term to maturity. Inverted yield curves (i.e., where short-term interest rates are higher than longer-term rates) can occur, though.
- 3. Since there are significant public trading markets for debt securities, it is easier to determine the present value of a publicly traded debt security than a closely held security.
- 4. One of the best methods to estimate the yield to maturity of a debt security of a closely held company is a guideline public company analysis.

4.28.4 D: Valuation Issues in Preferred Stock

- Preferred stock is a "hybrid" security with features similar to both common stock and bonds. Like common stock, it represents equity ownership and, much like a bond (debt holding), it can receive fixed income distributions and preferential treatment.
- 2. The dividend rate is the predetermined rate an issuer promises to pay the preferred shareholder.
- 3. A company that has issued preferred stock with cumulative dividend terms has an obligation to make all accumulated dividend payments to the preferred stockholders before declaring and paying a dividend on common stock.
- 4. Shares of preferred stock with noncumulative features do not carry a guarantee of dividend payments and as a result carry more risk than a pure debt instrument.
- 5. Convertible preferred stock gives the investor the option to exchange the security for common stock, giving the shareholder more flexibility.
- 6. Revenue Ruling 83-120 is intended to amplify Revenue Ruling 59-60 and set out other considerations regarding the valuation of preferred and common stock for gift tax and recapitalization of private companies.

7. For later-stage, dividend-dependent preferred stock, the fair market value of the stock is equal to the present value of the future cash dividends and principal payments, discounted back to the present value using a discount rate that embodies the risk associated with the investment.

4.28.5 E: Restricted Stock Valuation

- 1. Restricted stock is stock of a publicly traded corporation that is restricted from public trading for a specified period of time. Restricted stock is often identical to its publicly traded counterpart, except that it is not freely tradeable.
- 2. Revenue Ruling 77-287 provides guidance for the valuation of restricted stock.
- 3. The Longstaff analysis indicates that the greater the volatility, the greater the discount; the marketability discount is not a linear function of time because the greatest risks—and therefore the largest increases in percentage discount—occur early in the restriction period.

4.28.6 F. Valuation of Early-Stage Technology Companies

- 1. To avoid excess compensation charges, companies are required to set the grant price of employee stock options equal to or greater than the underlying common stock's fair market value at the time of issuance.
- 2. The analyst may need to focus on the timing in which the company expects to achieve sustainable profit margins, and work backward to the valuation date.
- 3. As with more traditional companies, the largest impediment to properly using the guideline transaction method in the technology arena is lack of information. Information on what bundle of assets and liabilities was acquired, what the true price and terms were, and whether strategic considerations were present is difficult to obtain.
- 4. Analysis of subject company transactions is the preferred market approach method when a contemporaneous or fairly recent transaction in the subject company's securities exists.
- 5. Simultaneous gifts made by the same donor in the same security can have different fair market values.
- 6. Due to the potential for abnormally high growth in the scale of operations, revenue, and cash flows, the discounted cash flow method is the income approach method of choice when valuing early-stage technology companies that have achieved some semblance of product or technical feasibility.
- 7. One of the first decisions the valuation analyst will face in implementing the income approach is whether to accept management projections as representing the most likely potential outcome or whether multiple scenarios should be projected and a probability of occurrence assigned to each. In theory, the latter approach is best, but, due to practical considerations, most often projection risk is addressed in the discount rate and not through multiple outcome scenarios.
- 8. Forecast losses that result from pre-revenue-phase expenditures (e.g., research and development [R&D] and brand building) can be discounted at a rate different from the profits.

9. If venture capital rates of returns are referenced in selecting an appropriate discount rate, the valuation analyst may need to adjust the lack of marketability discount applied later because many VC discount rates are predicated on investments in nonmarketable securities.

4.28.7 G. Valuation Issues Related to Stock Options and Other Share-Based Compensation

- 1. Employee stock options (ESOs) can be attractive given the fact that cash is not normally involved. Vesting rights often are embedded in these ESOs to promote employee retention by rewarding longevity.
- 2. Employee stock options are classified as either incentive stock options or nonqualified stock options. Incentive stock options are governed by fairly strict governmental requirements whereas nonqualified stock options are not.
- 3. Options that can be exercised at any time during their life and up to the expiration date are known as American options. Options that can be exercised only upon the expiration date are known as European options. Bermuda options are exercisable only on predetermined but flexible dates.
- 4. If not exercised before the expiration date, the option simply expires with no value
- 5. As a result of dilution, the value of a warrant may vary somewhat from the value of a call option with identical terms.
- 6. Even without being in the money, an option may have value. This value is created by the possibility that the option could be exercised profitably in the future. Three factors determine time value:
 - 1. Volatility of the stock underlying the option
 - 2. Risk-free rate of interest over the option period
 - 3. Length of time before the option expires
- 7. A key limitation of the Black-Scholes model is that it was developed to price European call options in the absence of dividends.
- 8. ESOs are characterized as incentive stock options or nonqualified stock options.
- 9. Warrants often are sold in connection with other financial instruments as a "sweetener" to enhance the attractiveness of the placement of the financial instrument they are bundled with or to get favorable terms on another financial instrument.
- 10. The causes driving the need for a valuation are fairly universal: litigation/divorce, management planning, tax-oriented (gift or estate), transaction-oriented, or financial reporting.
- 11. If the underlying stock is lightly traded or not publicly traded, volatility can be estimated using a representative sampling of guideline companies or an industry benchmark.
- 12. If an intervening event is identified in the analysis, it may be appropriate to exclude it from the volatility.
- 13. The final consideration is the marketability of the option itself. There are no studies available regarding the lack of marketability of closely held stock options.

4.28.8 H. Real Option Valuations

- 1. The traditional DCF model may also fail to capture the existence of any flexibility that a financial executive maintains as the decision maker of a project or strategic initiative. Once an investment decision is initiated, a financial executive may expand it, shut it down, defer additional work until later and then restart it, or even switch the investment entirely into another strategic purpose.
- 2. The benefit of real option analysis is its ability to apply a positive indication of value to uncertainty or volatility. Financial executives have many options in reacting to changes throughout the investment's economic life by adapting or revising their decisions in response to unexpected developments. This flexibility clearly provides companies with value, and the real option analysis assesses the value of this flexibility.
- The analysis behind real option theory is the valuation of opportunities associated with management's flexibility and is derived from the relationship connecting the methods in valuing financial options and the methods in valuing flexibility.
- 4. Real options exist in most businesses and may be more representative of the manner in which businesses operate, although they are not always very readily identifiable.
- 5. Real option analysis can become an important measurement tool in management's strategic decision making. Although many analysts still predominantly use DCF, real option analysis, as it becomes better understood and properly applied, may be more prevalent in the future.

4.28.9 I. Maximizing Shareholder Value

- 1. The most notable metric that has attempted to better measure value creation and has become increasingly accepted by analysts is the concept popularized by Stern Stewart & Company: economic value added (EVA).
- 2. The EVA concept, which is a value-driven financial performance measure, attempts to charge earnings with an expense for the cost of capital employed. In other words, it is simply a measure of what is left to the shareholders over the cost of capital.
- 3. The principle behind the EVA concept is that if a corporation's net income is positive after applying a charge for the cost of capital employed, the corporation has added shareholder value. If a corporation's net income is negative after applying a charge for the cost of capital employed, the corporation has destroyed shareholder value.
- 4. Similar models, such as market value added (MVA), return on invested capital (ROIC), and cash flow return on investment (CFROI), are also value-based concepts that claim to parallel the interests of shareholders with those of management.
- 5. Value drivers can be identified in almost any company. Some of the more widely recognized value drivers are:
 - Sales growth
 - Key people
 - Optimal profit margins

- Effective capital controls
- Broad and varied customer base
- Optimal cash flow

4.29 CHAPTER 28: VALUATION OF HEALTHCARE SERVICE BUSINESSES

- The level of reimbursement is a critical assumption in the financial projections of healthcare organizations. Many analysts make the inaccurate assumption that reimbursement will continue to increase at the national inflation rates. Analysts must understand and consider the payer mix of the business being valued, including how specific payers reimburse for services and the prospect for future changes in those reimbursements.
- 2. The volatility of reimbursement for individual procedures can be very high. It is important to consider prospective reimbursement changes when performing the valuation analysis.
- 3. Individual physicians exert a significant amount of control over the direction of patient referrals to healthcare service providers.
- 4. Opinions of fair market value that could be subject to the anti-kickback laws could receive high levels of scrutiny from regulators. Many transactions are subject to the anti-kickback regulations.
- It is important to identify applicable situations and possibly seek advice from healthcare attorneys as to the fraud and abuse implication of valuations performed in the healthcare services industry.
- 6. Violations of the anti-kickback law are subject to criminal fines and possible imprisonment, whereas violations of the Stark law are punishable only by civil penalties (as of the date of publication).
- 7. Appropriately factoring the regulatory environment into the valuation is important when valuing healthcare businesses.
- 8. It may be necessary to consult a qualified tax lawyer to understand how to appropriately consider the tax laws when valuing a business that involves a tax-exempt enterprise.
- 9. If a valuation is being performed as a result of regulatory requirements, the valuation must apply the fair market value standard of value.
- 10. It is important to understand the source of fees included in the revenue stream of the subject entity since the generation of professional versus technical revenue can involve different valuation dynamics.
- 11. A negative reimbursement trend for certain healthcare services is not uncommon. Unless supported by a reimbursement analysis, it may be erroneous to assume that reimbursement will increase at inflationary rates.
- 12. One of the erroneous assumptions sometimes made in healthcare valuations is that variable expenses are always solely a function of revenue.
- 13. The net result of volatile reimbursement levels for some healthcare entities is declining margins. Valuation professionals must carefully track variable costs.
- 14. Historically, public healthcare companies have been acquisitive and have had high valuation multiples. As a result, the multiples generated by public companies are generally not comparable to those of small private businesses.

- 15. Many analysts feel compelled to use the guideline company transaction multiples in every valuation. Unfortunately, transaction information is rarely provided at the level of detail necessary to perform a supportive guideline company transaction analysis as a primary method of value. Depending on the situation, the information can sometimes be used as a general reasonableness test for the value indications from other methods.
- 16. Many minority interests in healthcare partnerships do not exhibit the general characteristics that would require the magnitude of discounts in other closely held businesses.
- 17. The analyst should read the operating and/or partnership agreement to identify characteristics that would impact the level of minority or marketability discount.
- 18. A common oversimplification is utilizing limited market transaction data without understanding the transactions, a situation that can lead to faulty conclusions. Transaction data may be used as a reasonableness test for the results of other valuation methods.
- 19. Understanding the dialysis center's relationship with the nephrologist is critical in assessing risk.

4.29.1 Addendum 1—Mountain Surgery Center, LLC

- 1. It is important to understand the underlying components of the case mix, since the reimbursement rates for each specialty are not homogenous.
- 2. The analyst must ascertain the likelihood that the top 10 surgeons will continue to perform cases at a center, which affects the specialty growth rates used in the projections.
- 3. Analysts can review a sample of the surgery center's explanation of benefits (EOB) for the most recent surgical cases to understand the dynamics of the payer mix. An adequate sampling of 25 to 30 EOBs with the associated gross and net charges per procedure will provide an understanding of the main procedures performed under each specialty as well as help assess the reasonableness of the facility's overall charge rates.

4.29.2 Addendum 2—Valuation of Walnut Hospital

1. Simply adding inpatient days plus outpatient cases would be erroneous since patients who are treated on an outpatient basis in the hospital are not measured in terms of days. As a result, the hospital applies an adjustment factor to convert the patient days into adjusted patient days equal to (Inpatient Gross Revenue + Outpatient Gross Revenue/Inpatient Gross Revenue). This is necessary to arrive at a standard volume metric for measuring a hospital's occupancy rate and capacity.

4.30 CHAPTER 29: HEALTHCARE COMPENSATION

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4.31 CHAPTER 30: SPECIAL INDUSTRY VALUATIONS

4.31.1 A: Construction

1. The U.S. market for construction contractors is approximately \$1.36 trillion. About 640,000 firms generate revenues of less than \$100 million, just under 200 firms have revenues exceeding \$500 million, and fewer than 100 firms have revenues in the billions of dollars.⁸

- Construction contractors can engage in several types of contracts that differ in the manner in which the contactor is compensated and the level of risk assumed. These contracts include fixed-price contracts, time-and-materials contracts, and unit-price contracts.
- 3. The three most common methods of accounting are the cash-basis method, the completed-contract method, and the percentage-of-completion method.
- 4. The amount of retention is typically between 5 percent and 10 percent of each billing. Once a project is complete to the satisfaction of the customer, the retention will be released. The purpose of the retention is to provide an incentive to the contractor to complete a project to the satisfaction of the customer.
- Recomputing the job schedule using historical gross profit data can be a useful analytical tool in assessing the accuracy of management's current job estimates.
- 6. Because of intense price competition in the industry, many construction contractors have little, if any, goodwill value. This stems from the low margins that result from the competitive bidding process. Contractors who do have goodwill tend to have more negotiated contracts than competitively bid contracts and may have a good reputation and/or good relationship with customers.
- 7. There are three types of surety bonds, as follows:
 - Bid bond. Provides a financial guarantee that the bid has been submitted in good faith and that the bidder intends on entering into the contract at the bid price.
 - *Performance bond.* Protects the owner of a project from financial losses if the contractor should fail to perform under the contract.
 - *Payment bond.* Guarantees that the contractor will pay subcontractors.

8. Rules of Thumb9

General rules of thumb for construction valuations:

- Book value
- Book value plus a multiple of backlog
- 10 to 30 percent of annual revenues
- 2 to 3.5 times cash flows

General contractors would tend to be on the low end. Specialty contractors would tend to be on the high end. Conclusions will vary based on region, name recognition, financial strength, and other factors.

⁸U.S. Census Bureau, "Data Tables by Enterprise Receipt Size," data for 2012, www.census .gov/econ/susb/.

⁹Based on the author's industry experience.

Rules of thumb are provided as a broad benchmark to assess reasonableness of a valuation conclusion. The facts and circumstances of each individual company should be considered in determining the value of that particular company.

4.31.2 B. Oil and Gas Exploration and Production Valuations

- The oil and gas industry utilizes a variety of specific terminology and abbreviations that are not common in other industries (e.g., dry holes, BOE, spud, etc.).
 Take care to learn these terms and abbreviations, as they are essential for understanding the industry.
- 2. Ask management about its required usage of tangible assets in the extraction of reserves from a given area. The extent of usage can vary considerably from one location to another and from one company to another. The degree of tangible asset usage will impact the concluded valuation of an E&P company's reserves.
- 3. Oil and gas reserves are commonly classified into various reserve categories. Different reserves will have substantially different value conclusions depending upon their category due to the varying probabilities of extracting each particular reserve category.
- 4. Items not covered in a reserve report include:
 - Independently supportable commodity price forecasts (commonly referred to as a "price deck").
 - Whether a reasonable discount rate falls within the range of discount rates presented. The analyst must calculate his or her own supportable discount rate (or range of discount rates).
 - The appropriate level of depreciation, depletion, and amortization (DD&A) in the valuation of reserves on a post-tax basis. As reserve reports are generally reported on a pre-tax basis, the analyst must use his or her knowledge to incorporate an appropriate level of DD&A.
- 5. The analyst should have a strong understanding of the units and conversion factors used to measure and analyze reserves.

4.31.3 C. Radio

- 1. The Communications Act prohibits the assignment of a license or the transfer of control of a licensee without prior approval of the FCC.
- 2. Every commercial radio station is required to have a license from the FCC in order to operate. This license often represents the station's primary intangible asset. The station may also have purchased goodwill, due in large part to the significant number of acquisitions that have occurred in the industry.
- 3. Because of the high volume of transactions in the radio broadcasting industry subsequent to the adoption of the 1996 act, and the fact that there are a large number of publicly traded radio companies, there is a sufficient amount of relevant industry transactional data to facilitate use of the guideline company method in most engagements. In addition, as radio broadcasting industry

transactions are subject to regulatory approval, it is relatively straightforward to obtain relevant transaction documents.

- 4. As with any business valuation, it is desirable to obtain detailed financial information for the acquired business, the motives for the acquisition, the price and terms of the sale, information on the buyer, and other important qualitative information relating to the sale, in order to perform a meaningful market analysis and comparison.
- 5. The motives for the acquisition are important to consider, as they can impact the price paid for a particular radio station. A radio station may have been acquired to take advantage of market synergies, to increase market share, or to expand into a particular geographic market.

4.31.4 D. Cable TV

- 1. The Communications Act prohibits the assignment of a license or the transfer of control of a licensee without prior approval of the FCC.
- 2. Significant intangible assets include FCC licenses, franchise rights with local city and/or county, call letters, account lists, and audience growth potential. Accounting for license cost often includes the direct cost plus permits, as well as other costs to obtain permits for construction and expansion. This license represents the station's primary intangible asset.
- 3. Cable systems are generally operated in accordance with nonexclusive franchises granted by a municipality or other state or local government entity in order to cross public rights-of-way. Cable franchises are generally granted for fixed terms. Operators are typically subject to monetary penalties for noncompliance with franchise terms, or franchise rights may be terminated if the franchisee fails to comply with material provisions.
- 4. In order to perform a meaningful market analysis and comparison, it is desirable to obtain detailed financial information for the acquired business, the motives for the acquisition, the price and terms of the sale, information on the buyer, and other important qualitative information relating to the sale.
- 5. The motives for the acquisition are important to consider, as they can impact the price paid for a particular cable television company. A company may have been acquired to take advantage of market synergies, to increase market share, or to expand into a particular geographic market.

4.31.5 E. Restaurants

- 1. At first glance, restaurants appear similar and the valuation process would seem cookie-cutter. In reality, each restaurant has unique characteristics that require individual analysis and assessment. Opportunities to appraise groups of franchised restaurants are substantial. As such, this section will include a focus on franchised restaurants, which are virtually the same as standalone restaurants with a few added nuances and complexities.
- 2. A successful restaurant can make its owners wealthy; however, managing a restaurant is complex, and the failure rate is higher than in most other businesses.

- 3. New competition, dodging expensive real estate leasing, is popping up everywhere because barriers to entry are low and customer loyalty is fairly low.
- 4. Analyze leases and franchise royalties for future increases that may be buried in contractual agreements.
- 5. Pressure to increase the minimum wage that varies based on political posturing at the federal and state levels is always a threat to restaurant profitability. Owners are alarmed at the potential for dramatic increases to the minimum wage, such as proposed doubling in several states.
- 6. Seldom, if ever, does a buyer assume an existing loan. In a typical acquisition, a "hypothetical buyer" obtains a new loan and makes a down payment in cash of 20 to 25 percent.
- 7. The two ratios used by a majority of restaurant lenders are: the debt/EBITDA ratio (sometimes debt/EBITDAR, which is pre-rent expense) and the debt-service coverage ratio.
- 8. Think carefully about your weighted average cost of capital (WACC) in the restaurant industry. Your WACC increases as the level of debt declines in the capital structure year by year. In theory, every year WACC increases as debt declines, resulting in lower value as the cost of capital relies more on the equity side of the equation. Additional major reinvestment (remodeling, rebuilding, refreshing, etc.) complicates the equation with new borrowing and payments.
- 9. Analysts should carefully question management during their interviews to establish what reinvestment is planned in the coming years. Do not assume that a five-year average of capital expenditures is ever valid. What if an \$800,000 remodel is planned two years in the future?
- 10. Often rents or franchise fees are stepped to reflect increases over time. Read the contracts to understand the rights of the restaurant as a lessor and as a franchisee.
- 11. The hypothetical seller of a group or chain of restaurants will not normally allow a hypothetical buyer to exclude a restaurant that is generating negative cash flow.
- 12. A major risk in restaurant valuation is the "risk of the unknown." Topping the list of unknowns is the risk of a competitor arriving shortly after a purchase.
- 13. Few restaurant managers know their breakeven point by year, by month, or by day.
- 14. A big secret of restaurant valuation is that variable expenses can fall dramatically as volume increases.
- 15. Management is another secret of restaurant valuation. Are their results consistent? Do they manage turnover well? Do they implement and monitor training programs, including food safety? How experienced are they? Enthusiastic? Customer friendly? Profit focused?
- 16. Generally, franchise restaurants are worth more than standalone restaurants.
- 17. Every restaurateur has a memorized rule of thumb. They are all different. They seldom are correct. Readers of most valuation texts are certainly aware of all the problems, limitations, and flaws in the rule-of-thumb method, if it can even be called a method to value.
- 18. Although an analyst cannot be expected to be a food safety expert, the analyst should carefully document actual safety performance and restaurant procedures. This is an important component of the restaurant's risk premium.

4.31.6 F. Bars

1. Cash flow is cash flow whether a restaurant or a bar. However, be aware that on the accounting/internal control side, reported cash flow does not always represent actual cash flow. Theft, unreported sales, or other items affecting cash flow are more likely to surface in this segment of the industry. Lack of reliability of financial data reduces the valuator's confidence in the information being provided and subsequently can affect the estimated value conclusion.

2. Two bars have food and alcoholic beverage sales of \$800,000 each. The mix of sales is different for each of the entities. Sales are comprised of \$250,000 in alcohol sales at one bar versus \$400,000 in alcohol sales at the other. All else being equal, the bars will have different values. The same multiple would not apply to each of the entities.

4.32 CHAPTER 31: VALUATION VIEWS AND CONTROVERSIAL ISSUES: AN ILLUSTRATION

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Income Approach Valuation Process Flowchart

5.1 INTRODUCTION

The Income Approach Valuation Process Flowchart presented here provides valuation analysts with a structured process to assist in the proper application of the income approach. For less experienced analysts, it provides guidance in selecting and supporting the various methods and assumptions used in the income approach. Use of this flowchart will encourage good documentation of the reasons the approach was applied in the manner ultimately determined.

The Income Approach Valuation Process Flowchart is presented in outline form for ease of adaptation to a checklist for compliance. It suggests a series of questions to answer and concepts to consider when preparing the income approach. The cost of capital topic is not part of this guide.

5.2 INCOME APPROACH VALUATION PROCESS FLOWCHART

Disclaimer Excluding Any Warranties: This Income Approach Valuation Process Flowchart is designed to provide guidance to analysts, auditors, and management, but is not to be used as a substitute for professional judgment. This guide does not include nor address all the considerations and assumptions in a valuation. These procedures must be altered to fit each assignment; the various factors listed in this flowchart may not be necessary for every valuation. The practitioner takes sole responsibility for implementation of this guide. The implied warranties of merchantability and fitness of purpose and all other warranties, whether express or implied, are excluded from this transaction and shall not apply to this guide.

Business Name:	
Date of Valuation:	
I. Input five years of financial statements or tax returns.	
A. If five years do not exist, number of years input	
B. Reason for inputting fewer than or more than five years	

II. Is a minority or control valuation being perfor	rmed?
---	-------

Minority	Contro
----------	--------

- A. Make all appropriate normalization adjustments, including nonrecurring, nonoperating, and extraordinary items.
- B. If control value, list and explain all adjustments.
 - 1. Excess compensation
 - 2. Other perquisites
 - 3. Capital structure
 - 4. Other
- III. Analyze historical trends and compare to industry information, economic information, and projected/anticipated performance.
 - A. Revenue growth rates
 - 1. Investigate reasons for each year's growth.
 - 2. Explain all fluctuations.
 - a. Generally upward
 - b. Generally downward
 - c. Erratic (up and down)
 - 3. Is historical growth in line with projected/anticipated performance? If not, explain the differences.
 - 4. Are historical growth and projected performance in line with industry and general economic growth rates? Explain.
 - B. Gross margin
 - 1. Investigate reasons for each year's gross margins.
 - 2. Explain all fluctuations.
 - a. Generally upward
 - b. Generally downward
 - c. Erratic (up and down)
 - 3. Is historical gross margin in line with projected/anticipated performance? If not, explain the differences.
 - 4. Are historical gross margin and projected performance in line with industry and general gross margins? Explain.
 - C. Selling, general, and administrative (SG&A) expenses as a percent of revenue
 - 1. Investigate reasons for each year's expenses.

- 2. Explain all fluctuations.
 - a. Generally upward
 - b. Generally downward
 - c. Erratic (up and down)
- 3. Are historical SG&A expenses in line with projected/anticipated performance? If not, explain the differences.
- 4. Are historical SG&A expenses and projected performance in line with industry and general SG&A expenses? Explain.

D. Operating income margin

- 1. Investigate reasons for each year's operating income margin.
- 2. Explain all fluctuations.
 - a. Generally upward
 - b. Generally downward
 - c. Erratic (up and down)
- 3. Are historical operating income margins in line with projected/anticipated performance? If not, explain the differences.
- 4. Are historical operating income margins and projected performance in line with industry and general operating income margins? Explain.

E. Pre-tax income margin

- 1. Investigate reasons for each year's pre-tax income margin.
- 2. Explain all fluctuations.
 - a. Generally upward
 - b. Generally downward
 - c. Erratic (up and down)
- 3. Are historical pre-tax income margins in line with projected/anticipated performance? If not, explain the differences.
- 4. Are historical pre-tax income margins and projected performance in line with industry and general pre-tax income margins? Explain.

F. Taxes

- 1. Are taxes anticipated to change? _____ Yes _____ No
- 2. Include both federal and state taxes.
- 3. If net operating losses exist, explain how they were handled.

G. Net income growth rates

1. Investigate reasons for each year's net income growth.

- 2. Explain all fluctuations.
 - a. Generally upward
 - b. Generally downward
 - c. Erratic (up and down)
- 3. Are historical net income growth rates in line with projected/anticipated performance? If not, explain the differences.
- 4. Are historical net income growth rates and projected performance in line with industry and general net income growth rates? Explain.

H. Working capital

- If using a discounted cash flow (DCF) to invested capital method, make sure you are using debt-free working capital, which excludes short-term interest-bearing debt, including notes and the current portion of longterm debt.
- 2. Investigate each year's working capital requirements, including typical days sales outstanding, inventory turnover, and days payable outstanding.
- 3. Explain all fluctuations.
 - a. Generally upward
 - b. Generally downward
 - c. Erratic (up and down)
- 4. Are historical working capital requirements in line with projected/ anticipated performance? If not, explain the differences.
- 5. Are historical working capital requirements and projected performance in line with industry and general working capital requirements? Explain.

I. Depreciation

- 1. Investigate changes in annual depreciation, which should relate to capital expenditure investments.
- 2. Explain all fluctuations.
 - a. Generally upward
 - b. Generally downward
 - c. Erratic (up and down)
- 3. Is historical depreciation in line with projected/anticipated performance? If not, explain the differences.
- 4. Are historical depreciation and projected performance in line with industry and general depreciation? Explain.
- 5. Was book or tax depreciation used? Explain.

- J. Capital expenditures
 - 1. Investigate reasons for each year's capital expenditures and discuss future requirements with management.
 - 2. Explain all fluctuations.
 - a. Generally upward
 - b. Generally downward
 - c. Erratic (up and down)
 - 3. Are historical capital expenditures in line with projected/anticipated performance? If not, explain the differences.
 - 4. Are historical capital expenditures and projected performance in line with industry and general capital expenditures? Explain.
- IV. Are there any nonoperating or excess assets? Explain why they are nonoperating or excess assets.
 - A. Identify all such assets, value separately, and make sure both income statement and balance sheet are adjusted both historically and projected. Remove the effect of nonoperating assets from the operating cash flows. Consider whether to discount nonoperating assets when valuing a minority interest.
 - 1. Cars, boats, condos, houses
 - 2. Real estate
 - 3. Idle machinery and equipment
 - 4. Working capital
 - 5. Cash
 - 6. Receivables
 - 7. Inventory
 - 8. Other
- V. Are earnings and cash flow anticipated to continue consistent with past trends?
 - A. Yes
 - 1. Consider using a capitalized cash flow (CCF) method instead of a DCF.
 - 2. If using a CCF method, choose the period(s) upon which the cash flow relies and explain your choice.
 - a. Five-year straight average
 - b. Three-year straight average
 - c. Five-year weighted average

- d. Three-year weighted average
- e. Most recent 12 months trailing
- f. Most recent four quarters trailing
- g. Most recent fiscal year-end
- h. One-year forward

h. Net income after tax

- i. Trend analysis
- j. Other

B. No

- If the future performance of the company is expected to change, consider using a DCF method. This usually means growth rates, profit margins, or both are anticipated to change, or a normalized level of cash flow has not been achieved currently. It may also mean that the business itself may be changing.
- 2. Has the client prepared projections of future cash flows? _____ Yes _____ No 3. If no, who prepared projections? 4. Decide whether to use an equity or invested capital model and explain your decision. _____ Equity Model _____ Invested Capital 5. Do projections include: a. Revenue b. Gross profits c. Depreciation 1. Book (remember to consider deferred taxes) 2. Tax (deferred taxes are not considered) d. SG&A e. Operating income f. Other income/expenses 1. Interest expense 2. Interest income 3. Nonoperating income or expenses, such as real estate, securities g. Pre-tax income

- i. Capital expenditure needs
- j. Incremental working capital needs (If using an invested capital model, working capital must be meaning that all interest-bearing, short-term debt is removed from the working capital calculation. This usually includes the current maturity of long-term debt.)
- k. Debt principal to be repaid, if equity model
- l. New debt principal in, if equity model (must be normalized in CCF and terminal year of DCF)
- m. Deferred taxes if using book depreciation
- n. Terminal-year value (What is the future anticipated perpetuity growth rate?)

		rate?)
VI.		future growth rate greater than historical nominal gross domestic product DP) growth of approximately 6 percent?
	_	Yes No Same. Explain.
	Α.	Is future growth rate greater than forecasted nominal GDP growth, for example, the $Livingston\ Survey$?
		1. What is forecasted nominal GDP growth?
		2. Explain.
	В.	Test growth rates in revenue versus earnings versus cash flow. If different, explain why.
	C.	Is there a large difference between the terminal-year growth rate and the growth rate in the last year of the discrete period?
		Yes No
		1. Explain.
		2. Do not mix revenue growth rates with cash flow growth rates. They are often the same, but the terminal-year growth assumption is based on expected growth in normalized cash flow.
	D.	If using the Gordon Growth Model (GGM), calculate the implied value in the terminal year as a multiple of EBITDA or EBIT.
		EBITDA EBIT
		1. Is this consistent with the multiples used in the market approach?
		a. Yes EBITDA
		b. No EBITA
		2 Explain It is cometimes justified to test the terminal-year implied multiple

against the market multiples adjusted downward to reflect the risk of

projecting a multiple in future years.

growth rate?

_____ Yes _____ No. Explain.

	capital expenditures and depreciation similar in the terminal year (typically, to cost increases, capital expenditures can exceed depreciation into perpetuity)?
A. I	f yes, no further adjustment is necessary.
В. І	f no, normalize them to be similar, or
1	1. If there is a material depreciation overhang, present value it separately and add it to the value.
2	2. If there is a material capital expenditure overhang, present value it separately and deduct it from the value.
VIII. Are	e projections and resultant value minority or control?
	Minority Control
A.	Explain. If all discrete expenses have been added back—excess compensation, perquisites, capital structure—the value is on a control standalone value. If such expenses have not been added back, then the resultant value is on a minority standalone basis because the cash flows reflect the diminished cash flows and value. If the company has no discrete expenses to add back, then the value is the same for both minority and control. In this situation, some practitioners will apply a smaller minority discount when valuing a minority interest to reflect the fact that, although the controlling stockholder is not taking cash out today, that policy could change in the future, resulting in added risk that diminishes value. Be careful using minority discounts derived from control premium studies (Mergerstat Review) to discount for standalone minority value, since those studies reflect mostly synergized premiums paid by strategic buyers of public companies.
В.	Is the resultant value a marketable or liquid value?
	Yes No
	1. Explain. If using Duff & Phelps data, the value is a marketable/liquid value and assumes cash in less than three days. A further discount for marketability/liquidity may be warranted for both a minority and control value. Some practitioners will discount a minority interest at a greater amount than a controlling one. However, even a controlling interest cannot usually be sold with cash in three days.
C.	Optional: Check terminal-year value using the Value Driver Formula (VDF). 1
	1. VDF assumes that the company will always earn a return on new invested capital equal to its cost of capital and thus no increase in value. This is

true regardless of the growth rate, since both returns on capital and the

¹Tim Koller, Marc Goedhart, and David Wessels, Valuation: Measuring and Managing the

Value of Companies, 6th ed. (John Wiley & Sons, 2015), 28-33.

E. Is the working capital assumption into perpetuity driven by the perpetuity

actual costs of new capital will grow at the same rate under this formula. VDF is sometimes used to check the individual components of the GGM for reasonableness.

- VDF = NOPLAT / WACC (NOPLAT is net operating profit less adjusted taxes)
- 3. To check the components of GGM, we consider the value driver model:
 - a. Continuing Value = FCF / (WACC g) = [NOPLAT (1 g / ROIC)] / (WACC g)
 - 1. FCF = Free cash flow, or (DFNI + Depr. CAPEX Δ W / C)
 - 2. NOPLAT = Net operating profit less adjusted taxes (this is the same as DFNI)
 - 3. g = Expected growth rate in NOPLAT in perpetuity
 - 4. r = Expected rate of return on net new investment (also ROIC)
 - b. Using algebra, we deduce: FCF = NOPLAT (1 g / r), or FCF = DFNI (1 g / r)
 - c. Restating the formula:
 - 1. DFNI + Depr. CAPEX Δ W / C = DFNI (1 g / r)
 - 2. As we know the individual components of the formula, we can test our conclusion of value by solving for g or r, such that:

a.
$$g = r [1 - ((DFNI + Depr. - CAPEX - \Delta W / C) / DFNI)]$$
, and
b. $r = g / [1 - ((DFNI + Depr. - CAPEX - \Delta W / C) / DFNI)]$

- 4. If the calculated r is much greater or less than the discount rate used in the conclusion of value, maybe reconsider the Depr., CAPEX, or ΔW / C growth, or even discount rate.
- 5. What is VDF value?
 - a. Is it higher or lower than GGM value?
 - 1. If VDF is higher, then the company is destroying value by growing since the costs of capital must then be exceeding the return on capital.
 - 2. If the VDF is lower, then the company is earning a return on capital higher than its cost of capital into perpetuity.
- 6. Conclusion: If used, correlate with other values derived from other valuation approaches/methods.

Marketing, Managing, and Making Money in Valuation Services

C aveat: Most of the following information is presented in a best-case scenario where everything is almost perfect. It may not be possible or relevant to adopt all of these procedures, policies, and ideas. Each professional and firm should choose the resources that fit the firm/group, its philosophy, and its culture.

Disclaimer: For discussion and educational purposes only. Some topics may not be relevant to every practice. Valuation and litigation services are very much affected by specific facts and circumstances. As such, the views expressed in this chapter do not necessarily reflect the professional opinions or positions that the authors would take in every assignment or practice, or in providing valuation or litigation services in connection with an actual engagement, matter, or practice. Every situation and practice is unique, and differing facts and circumstances may result in variations of the information presented. Jim Hitchner, Financial Valuation Solutions, LLC, and Valuation Products and Services, LLC assume no responsibility for any errors in this information, use of this information, or reliance on the information. Use at your own risk.

6.1 SMART "MULTI-MARKETING": LEVERAGING YOUR EFFORT—SELLING AND NETWORKING BEYOND ONE ON ONE

The following point list is designed to assist the professional firm in planning an effective marketing strategy.

- Decide on what target market you want to reach:
 - Attorneys
 - Business owners
 - CPAs
 - Bankers
 - Other advisors
- Publish an article:
 - Look back at the last two years and do something different
 - Court cases are popular and very low risk

- Cap rates and discounts are popular, but practice what you preach:
 - Remember, articles are discoverable
- Write on a subject that is leverageable and of interest to your target market
- Publishers are always in need of articles
- Send a pitch letter
- Tell them the subject has not been addressed in the last two years
- Call them
- Get a commitment for an article, assuming it is acceptable to the publisher and editor
- Leverage the article:
 - Speak on the article:
 - Appraisal/valuation society meetings
 - State CPA society meetings
 - National conferences
 - Send article to clients
 - Send article to prospects, for example, attorneys
 - Invest in Martindale & Hubbell
- Court case E-Flashes:
 - Very inexpensive except for initial setup of database
 - Email
 - Should come from practice leader
 - Subject line important
 - Court cases a good start
 - Keep it simple and short
 - Provide some advertising:
 - A little up front (e.g., banners) (Appendix 6.1)
 - More at the end
 - Attached Adobe files can also be used
 - See Gibraltar Business Valuations, Sample (Appendix 6.2)
 - Sources:
 - AICPA
 - ASA
 - Financial Consulting Group (FCG) (authored by Chris Treharne and his firm)
 - Other local, state, or national society
- Advertising:
 - Must be continuous
 - Takes a while to be effective
 - Must be classy
 - Use color and images
 - Stay away from clutter
- Speeches:
 - Contact state CPA society groups
 - Contact local appraisal/valuation chapters
 - Contact bar associations
 - Contact law firms:
 - Breakfasts and lunches at law firm good
 - Cocktail parties at law firm or in same building good

- National conferences:
 - AICPA
 - ASA
 - NACVA
- Industry associations:
 - All business owners interested in valuation
 - Always looking for speakers
 - Rules of thumb a big hook
- Make sure the participants learn at least two terrific new pieces of information as a take-away
- Teaching:
 - Volunteer for national BV organizations
 - Teach what you are comfortable with
 - Keeps you up to speed
 - Good networking
 - May be time-consuming, depending on the commitment
 - Good for resume
- Random thoughts:
 - The talk meter sales call
 - Just the questions, man, just the questions (let the client talk)
 - Keep a manageable target list of prospects/clients
 - Much work can come from a lesser number that you keep in constant contact with
 - *Nifty Fifty* technique (50 main contacts)
 - Marketing is not a fancy word for selling
 - Good work travels fast, bad work travels faster
 - It's expensive to keep a client, but it's more expensive to gain a client
 - Prospects who choose based on fee will continually choose on fee . . . hard to raise fees later
 - Good work should be paid for
 - Good work sometimes goes unnoticed
 - Your bad work rarely goes unnoticed
 - Love what you do and do what you love
 - Get rid of difficult clients
 - Do everything, well . . . almost everything, to keep "pay on time" clients
 - Stay in front of clients . . . they sometimes forget about you
 - Most of your competitors hate to market and sell
 - The phone never rings unless you make it ring
 - Cold calls are just that: cold
 - Use warm-call techniques (get someone you know to help)
 - Be patient
 - Be diligent
 - Be different
 - And always be good

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6.2 RISK MANAGEMENT: ENGAGEMENT LETTERS, REPORTS, AND TURNING DOWN WORK

The following list is intended to provide the professional with those items they should consider when establishing assignment guidelines and practices.

- Risk . . . not all purposes are created equal.
- Riskier engagements:
 - ESOPs
 - Transactions
 - Fair value reporting work for public clients
 - Seat-of-the-pants valuations for any reason
 - Any purpose without an engagement letter
 - Any purpose without the proper protection in an engagement letter
- Engagement letters (see Engagement Letter and Report Language Examples section):
 - Must be written, bilateral, and signed
 - One-way communication is not a binding contract
 - Restrictions on:
 - Who can see it
 - Who can rely on it
 - Purpose and use
 - No other use
 - Sometimes who is not allowed to see it
 - Only good as of a single date
 - Scope
 - Protective language:
 - Indemnification
 - Corporate/entity only without any liability to individuals
 - Fees
 - Retainer applied against last bill . . . stay ahead
 - Client cannot sue unless fees paid up front
 - Must be paid regardless of outcome of matter
 - Must be paid regardless of what the court awards in fees
 - Timing of billings and expected collections
 - Interest on unpaid balances
 - Can quit if not paid timely
 - Caveat that you will inform client of higher fees due to unexpected events or information problems
 - No report or testimony unless paid in full
 - Require retainer before testimony
 - Mediation/arbitration provision for disputes
 - Disclaimers:
 - Not an attest service
 - Reliability of data used
 - Relationship check
 - Form of work product/report
 - Work paper retention policy

- Standards abided by:
 - USPAP, AICPA, NACVA, ASA, IBA
- Confidentiality section:
 - May help protect clients in later litigation cases when asked about other clients
- Other services and additional fees
- Expiration date on engagement letter
- Reports:
 - Type:
 - USPAP
 - Appraisal Report
 - Restricted Appraisal Report
 - SSVS VS Section 100
 - Detailed
 - Summary
 - Calculation
 - Oral
 - Other?
 - Protective language:
 - Repeat much of what is in engagement letter
 - Belt and suspenders
- Don't eat bad food.
 - When you're hungry, you'll be tempted to eat anything . . . don't
 - Signs of a possibly difficult client:
 - Retainer resistance
 - Fee or rate resistance
 - Many suggested changes to engagement letter
 - Unresponsive when you try to contact them
 - Gruff and unpleasant
 - Does not treat you with respect
 - Does not listen
 - Bad jobs will:
 - Upset your staff
 - Take a lot of energy
 - Take away from your ability to work on good engagements and good clients
 - Possibly cause billing and collection problems
 - Make you miserable

6.3 ENGAGEMENT LETTER AND REPORT LANGUAGE EXAMPLES

6.3.1 Caution for Using Engagement Letter and Report Language Examples

These selected engagement letter and report language examples are to be adjusted to the facts and circumstances of each assignment/engagement. The examples presented here are only a tool that is subordinate to the judgment of the valuation professional

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in charge of the engagement. This language should not be used unless the valuation professional understands each term and phrase in the language examples and has verified that the facts of an engagement were properly captured.

Users *must* have an attorney review the terms of these engagement letter and report language examples to make sure that they reflect the particular needs of each firm. Jim Hitchner, Financial Valuation Solutions, LLC, and Valuation Products and Services, LLC assume no responsibility for any errors in the language, use of the language, or reliance on the language. Use at your own risk.

6.3.2 Purpose and Objectives

The valuation is provided for the sole purpose of _____ planning.

The objective of the valuation is to provide an independent valuation analysis and report to assist you in your determination of the fair market value of (a minority, a majority, a controlling interest, a percent interest) in (COMPANY NAME) ("_______" or "Company") as of _______.

6.3.3 Disclaimer

We will read and analyze, to the extent available and relevant, financial statements, income tax returns, contracts, agreements, property schedules, and such other records or other documents we deem appropriate. In addition, outside research sources and knowledgeable individuals will be consulted as necessary. Factual information provided will be relied upon as being true and correct. We will not perform an audit, review, or compilation of financial statements in the capacity of certified public accountants under the standards promulgated by the American Institute of Certified Public Accountants (AICPA). Our work cannot be relied upon to discover errors, irregularities, or illegal acts, including fraud or defalcations. As part of the valuation process, projections and/or forecasts of future operating results and related balance sheets may be used if deemed practical in the circumstances. If so, such projections and forecasts will be performed by management and represented as being management's best estimate of such future results and balance sheets. The Firm will not perform procedures prescribed by the AICPA that would otherwise be required were we to be engaged specifically to compile or examine such forecasts. Accordingly, the Company and its owners understand and accept that the Firm is not being employed in the capacity of examining certified public accountants and will not therefore express any form of comfort or assurance in the achievability of the forecasts or projections or the reasonableness of underlying assumptions.

6.3.4 Form of Work Product

6.3.4.1 (Option 1) Our valuation will be presented in a report for your use. Our analysis and report will meet the development and reporting requirements of the AICPA's Statement on Standards for Valuation Services (SSVS) VS Section 100, and the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation. (Insert other association standards as appropriate, e.g., ASA, NACVA, IBA.) (Option) Our report will be subject to the assumptions and limiting conditions contained as Appendix B.

6.3.5 Fees and Billing

Our total fee for the valuation services and report will be \$______ to \$_____, plus expenses. Expenses include travel and meals, document and report reproduction, telephone, mail, computer charges, research information, and related overhead.

An initial retainer fee is due upon acceptance of this contract. Accordingly, an invoice for our (nonrefundable) retainer fee of \$______ is attached. The retainer will be applied to the last invoice.

Following the receipt of the retainer and the commencement of work on this project, fees and expenses will be billed to you (*insert time period*—monthly, quarterly, etc.) and are due upon presentation of statements. Our final bill must be paid prior to the issuance of our final report. If for any reason the transaction is terminated prior to its consummation and the Firm is requested to terminate work, then the Firm's fee shall not be less than the Firm's total time and costs at the normal rate for such projects, plus out-of-pocket expenses.

Our fee is based on our knowledge of the facts and circumstances as of the date of this engagement letter. This fee is also contingent upon our receiving all data and information in a timely manner. Any changes that require additional professional time will be discussed before proceeding.

Any invoice not paid within thirty (30) business days following presentation shall bear interest at the rate of 1.5 percent compounded each month. Should it be necessary to refer any invoice for collection or arbitration, you shall be responsible for all costs of collection and arbitration, including attorneys' fees. In the event that you disagree with or question any amount due under an invoice, you agree that you shall communicate such a disagreement to us in writing within thirty (30) days of the invoice date. Any claim not made within that period shall be deemed waived.

When initiated by the Client and as a condition precedent to mediation, arbitration, or suit, the parties agree that all invoices billed by the Firm shall be paid in full, including accrued but unpaid interest.

6.3.6 Additional Options for Hourly Billing Where Attorney Retains Firm

Company acknowledges its obligation to pay the Firm for services rendered, whether arising from you or your attorney's request or otherwise necessary as a result of our efforts in this engagement, regardless of the outcome of this matter, at our billing rates for personnel used. We will notify you with respect to those activities and related fees as the engagement progresses. Our billing rates for staff that we expect to use currently range from \$ to \$ per hour. Mr./Ms. [Responsible Analyst's] rate is \$ per hour. Our billing rates will usually increase effective January 1 of each year to reflect increases in our costs. We will advise you of any such increases, should they occur, prior to providing additional services at increased rates. Our billing rates will not increase prior to January 1, 20XX. Company is solely responsible for payment of all of our fees and expenses.

It is the Firm's policy to require a retainer prior to the commencement of our engagement. Please send us a retainer of \$_____ following the signing of this engagement letter. This retainer will be applied against our final invoice. We will bill periodically for services rendered and expenses incurred on this engagement. Such expenses,

for example, may be those directly incurred for travel, business meals, delivery, photocopies, telephone calls, graphics, data charges, and overhead applicable to this engagement. We may use administrative support personnel in the performance of certain tasks for this engagement; if so, we will charge for such time at their hourly rates. All invoices are payable upon receipt. All bills will be paid prior to testimony of any kind or the delivery of written analyses or reports. If we do not hear to the contrary within a 30-day period of time, it is understood that our invoice is accepted as presented.

All fees associated with the preparation for, and the actual attendance of, any depositions concerning our analysis will be paid by the Company. You agree that it is your responsibility to collect any fees from opposing counsel and that failure to collect such fees has no bearing on your responsibility to pay the Firm.

6.3.7 Arbitration Provision (Could Be Mediation Provision)

The parties agree that any claims, disputes, or controversies arising out of or relating to this engagement letter, or its breach, that cannot be resolved by the parties shall be submitted to arbitration in [City, State], in accordance with the applicable rules, regulations, policies, and procedures of the Commercial Arbitration Rules of the American Arbitration Association (AAA) and the Federal Arbitration Act. The arbitration shall be conducted before a neutral arbitrator mutually agreed upon by the parties. If the parties do not promptly agree on an arbitrator, either party may request that an arbitrator be appointed by the AAA. The decision before the arbitrator shall be final and binding. (Caution: Consult with your attorney.)

(Option)

6.3.8 Representations

Our report will be subject to the representations attached hereto as Appendix A. At the conclusion of the engagement, we may require you to sign an additional representation letter on these and various other assumptions and information relied upon in the valuation.

(Option)

6.3.9 Statement of Assumptions, Contingent, and Limiting Conditions

Our report will be subject to the Statement of Assumptions, Contingent, and Limiting Conditions or something similar to, as attached hereto as Appendix B.

6.3.10 Indemnity

(Caution: See your attorney and/or the AICPA guide on engagement letters. Highly recommended in certain types of valuations.) The indemnity might also include the following statements with consideration to *Daubert* challenges.

6.3.11 Daubert Challenges

(Caution: Consult with your attorney.) Because of the adversarial nature of any dispute, it is not uncommon that parties in litigation challenge the admissibility of

experts (e.g., *Daubert* challenge). Prior to the release of any opinions to opposing counsel and the rendering of any testimony in this engagement, you and your attorneys agree to review the facts and circumstances upon which our work and opinions are based. You and your attorneys hereby acknowledge that the Firm is being retained because its professionals satisfy the necessary requirements of knowledge, skill, experience, training, or education.

You and your attorneys retain sole responsibility for assessing other factors or assumptions that may bear upon the question of admissibility. As such, even if testimony is excluded as a result of a challenge to the admissibility of our testimony, all fees and expenses are still due, and owing upon presentation of an invoice, the Company is not relieved of liability of such fees and expenses. You further agree to compensate us for any time or out-of-pocket expenses incurred in defending such challenges. Additionally, should a trier of fact determine that the testimony to be offered by a member of our Firm be excluded, you and your client agree to indemnify and hold harmless the Firm and its personnel from any claims, liabilities, costs, and expenses arising from this exclusion, except to the extent it is finally determined that such exclusion resulted solely from the Firm's gross negligence or willful misconduct. (Caution: Consult with your attorney.)

6.3.12 Relationships

We have undertaken a limited review of our records to determine the professional relationships of the Firm with the persons and entities you identified in connection with this matter. We have not identified any such relationships at this time. (Option: We have relayed all such relationships to you.) While we will notify you immediately of any relationships that come to our attention, we cannot assure you that all such relationships will come to light.

6.3.13 Confidentiality and Work Papers

We agree to hold in strict confidentiality all proprietary information provided by you in connection with this project. We agree not to share any confidential information with persons outside the Firm. The working papers for this engagement will be retained in our files and are available for your reference. We would be available to support our valuation conclusion(s), should this be required. Those services would be performed for an additional fee. (Option: The ownership of schedules, information, and other work papers developed during the assignment by the Firm or supplied by the Company are the sole property of the Firm and are not subject to examination or production to the client at any time during or after the engagement.)

6.3.14 Termination

Failure to make the payments required by this agreement, or failure by you to comply with the terms of this agreement, will release the Firm from this agreement.

6.3.15 Other Services

If the Firm is called upon to render services, give testimony, produce documents, answer depositions or interrogatories, or otherwise become involved in connection

with any administrative or judicial proceedings, investigations, or inquiries relating to the engagement, the Company will pay, in addition to other fees here, for the time reasonably required to be expended by any officers or employees of the Firm, at their standard hourly rates as then in effect, plus out-of-pocket expenses relating thereto. Professional fees for such services are independent of this engagement.

6.3.16 Corporate Obligation

The obligations of the Firm are solely corporate obligations, and no officer, principal, director, employee, agent, shareholder, subcontractor, or controlling person shall be subjected to any personal liability whatsoever to any person or entity, nor will any such claim be asserted by or on behalf of any other party to this agreement or any person relying upon the opinion.

6.3.17 Distribution of Analysis, Conclusions, and Report

Our analysis, conclusions, and report, which are to be used only in their entirety, are for the use of the Company, their accountants and attorneys, solely to assist them in their determination of the value of the Company for (*insert purpose*). They are not to be used for any other purpose, or by any other party for any purpose, without our express written consent. (Option: Our report may be furnished to the [example—Internal Revenue Service]). No third parties are intended to be benefited.

Any summary of, or reference to, the opinion, any verbal presentation with respect thereto, or other references to the Firm in connection with the transaction will be, in each instance, subject to the Firm's prior review and written approval, except as may be required by a governmental agency or court. The opinion will not be included in, summarized, or referred to in any manner in any materials distributed to the public without the Firm's express prior written consent.

6.3.18 Acceptance

If this engagement letter is satisfactory to you, please indicate approval of the terms set forth herein and attached hereto by signing and dating the engagement letters and returning one of the originals. Retain the other original for your file. This offer for engagement will expire if not accepted within ______ days.

6.4 ASSUMPTIONS AND LIMITING CONDITIONS EXAMPLES

6.4.1 Caution for Using Assumptions and Limiting Conditions Language Example

This selected assumptions and limiting conditions language is to be adjusted to the facts and circumstances of each assignment/engagement. The language example presented here is only a tool that is subordinate to the judgment of the valuation professional in charge of the engagement. This language should not be used unless the

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valuation professional understands each term and phrase in the language example and has verified that the facts of an engagement were properly captured.

FVW readers and language example users *must* have an attorney review the terms of this assumptions and limiting conditions language example to make sure that it reflects the particular needs of each firm. Jim Hitchner, Financial Valuation Solutions, LLC, and Valuation Products and Services, LLC, assume no responsibility for any errors in the language, use of the language, or reliance on the language. Use at your own risk.

6.4.2 Language Examples

6.4.2.1 Assumptions, Limiting Conditions, and Valuation Representation/Certification Valuation Engagement Note: Items 1 to 17 are taken directly from SSVS, either exactly or with slight modifications. Items 18 to 42 are an illustrative list of additional assumptions and limiting conditions that each analyst, along with their attorney, can decide to use in whole or in part. These can be modified and used in reports and engagement letters.

The primary assumptions and limiting conditions pertaining to the value estimate conclusion(s) stated in this [identify type of report] appraisal report (report) are summarized below. Other assumptions are cited elsewhere in this report.

- The conclusion of value arrived at herein is valid only for the stated purpose as
 of the date of the valuation.
- 2. Financial statements and other related information provided by [ABC Company] or its representatives, in the course of this engagement, have been accepted without any verification as fully and correctly reflecting the enterprise's business conditions and operating results for the respective periods, except as specifically noted herein. [Valuation Firm] has not audited, reviewed, or compiled the financial information provided to us and, accordingly, we express no audit opinion or any other form of assurance on this information.
- 3. Public information and industry and statistical information have been obtained from sources we believe to be reliable. However, we make no representation as to the accuracy or completeness of such information and have performed no procedures to corroborate the information.
- 4. We do not provide assurance on the achievability of the results forecasted by [ABC Company] because events and circumstances frequently do not occur as expected; differences between actual and expected results may be material; and achievement of the forecasted results is dependent on actions, plans, and assumptions of management.
- 5. The conclusion of value arrived at herein is based on the assumption that the current level of management expertise and effectiveness would continue to be maintained and that the character and integrity of the enterprise through any sale, reorganization, exchange, or diminution of the owners' participation would not be materially or significantly changed.
- 6. This report and the conclusion of value arrived at herein are for the exclusive use of our client for the sole and specific purposes as noted herein. They may not be used for any other purpose or by any other party for any purpose. Furthermore, the report and conclusion of value are not intended by the author and should

- not be construed by the reader to be investment advice in any manner whatsoever. The stated valuation represents the considered conclusion of value of [Valuation Firm], based on information furnished to them by [ABC Company] and other sources.
- 7. Neither all nor any part of the contents of this report (especially the conclusion of value, the identity of any valuation specialist(s), or the firm with which such valuation specialists are connected or any reference to any of their professional designations) should be disseminated to the public through advertising media, public relations, news media, sales media, mail, direct transmittal, or any other means of communication, including but not limited to the Securities and Exchange Commission or other governmental agency or regulatory body, without the prior written consent and approval of [Valuation Firm].
- 8. Future services regarding the subject matter of this report, including but not limited to testimony or attendance in court, shall not be required of [Valuation Firm] unless previous arrangements have been made in writing.
- 9. [Valuation Firm] is not an environmental consultant or auditor, and it takes no responsibility for any actual or potential environmental liabilities. Any person entitled to rely on this report, wishing to know whether such liabilities exist, or the scope and their effect on the value of the property, is encouraged to obtain a professional environmental assessment. [Valuation Firm] does not conduct or provide environmental assessments and has not performed one for the subject property.
- 10. [Valuation Firm] has not determined independently whether [ABC Company] is subject to any present or future liability relating to environmental matters, (including but not limited to CERCLA/Superfund liability) nor the scope of any such liabilities. [Valuation Firm]'s valuation takes no such liabilities into account, except as they have been reported to [Valuation Firm] by [ABC Company] or by an environmental consultant working for [ABC Company], and then only to the extent that the liability was reported to us in an actual or estimated dollar amount. Such matters, if any, are noted in the report. To the extent such information has been reported to us, [Valuation Firm] has relied on it without verification and offers no warranty or representation as to its accuracy or completeness.
- 11. [Valuation Firm] has not made a specific compliance survey or analysis of the subject property to determine whether it is subject to, or in compliance with, the American Disabilities Act of 1990, and this valuation does not consider the effect, if any, of noncompliance.
- 12. [Sample wording for use if the jurisdictional exception is invoked.] The conclusion of value in this report deviates from the Statement on Standards for Valuation Services as a result of published governmental, judicial (legal), or accounting authority. [State difference and that only the part(s) that differ are void and of no force or effect.]
- 13. No change of any item in this appraisal report shall be made by anyone other than [Valuation Firm], and we shall have no responsibility for any such unauthorized change.
- 14. Unless otherwise stated, no effort has been made to determine the possible effect, if any, on the subject business due to future federal, state, or local legislation, including any environmental or ecological matters or interpretations thereof.

- 15. If prospective financial information approved by management has been used in our work, we have not examined or compiled the prospective financial information and, therefore, do not express an audit opinion or any other form of assurance on the prospective financial information or the related assumptions. Events and circumstances frequently do not occur as expected, and there will usually be differences between prospective financial information and actual results, and those differences may be material.
- 16. We have conducted interviews with the current management of [ABC Company] concerning the past, present, and prospective operating results of the company.
- 17. Except as noted, we have relied on the representations of the owners, management, and other third parties concerning the value and useful condition of all equipment, real estate, investments used in the business, and any other assets or liabilities, except as specifically stated to the contrary in this report. We have not attempted to confirm whether or not all assets of the business are free and clear of liens and encumbrances or that the entity has good title to all assets.
- 18. The approaches and methodologies used in our work did not comprise an examination in accordance with generally accepted auditing standards, the objective of which is an expression of an opinion regarding the fair presentation of financial statements or other financial information, whether historical or prospective, presented in accordance with generally accepted accounting principles. We express no opinion and accept no responsibility for the accuracy and completeness of the financial information or other data provided to us by others. We assume that the financial and other information provided to us is accurate and complete, and we have relied upon this information in performing our valuation.
- 19. The valuation may not be used in conjunction with any other appraisal or study. The value conclusion(s) stated in this appraisal is based on the program of utilization described in the report, and may not be separated into parts. The appraisal was prepared solely for the purpose, function, and party so identified in the report. The report may not be reproduced, in whole or in part, and the findings of the report may not be utilized by a third party for any purpose without the express written consent of [Valuation Firm].
- 20. Unless otherwise stated in the appraisal, the valuation of the business has not considered or incorporated the potential economic gain or loss resulting from contingent assets, liabilities, or events existing as of the valuation date.
- 21. The working papers for this engagement are being retained in our files and are available for your reference. We would be available to support our valuation conclusion(s) should this be required. Those services would be performed for an additional fee.
- 22. Any decision to purchase, sell, or transfer any interest in the subject company or its subsidiaries shall be your sole responsibility, as well as the structure to be utilized and the price to be accepted.
- 23. The selection of the price to be accepted requires consideration of factors beyond the information we will provide or have provided. An actual transaction involving the subject business might be concluded at a higher value or at a lower value, depending upon the circumstances of the transaction and the business, and the knowledge and motivations of the buyers and sellers at that time. Due to the economic and individual motivational influences that may affect the sale of a

- business interest, the appraiser assumes no responsibility for the actual price of any subject business interest if sold or transferred.
- 24. All facts and data set forth in our letter report are true and accurate to the best of the Appraiser's knowledge and belief.
- 25. All recommendations as to fair market [other standard] value are presented as the Appraiser's conclusion based on the facts and data set forth in this report.
- 26. During the course of the valuation, we have considered information provided by management and other third parties. We believe these sources to be reliable, but no further responsibility is assumed for their accuracy.
- 27. We made [did not make] an on-site visit to selected Company facilities. We did [did not] interview Company management.
- 28. This valuation analysis and report, which are to be distributed only in their entirety, are intended solely for use by you and your client, solely to assist you and your client in the determination of the fair market value [other standard] of the subject interest for tax [other] purposes. It should not be used for any other purpose or distributed to third parties for any purpose, in whole or in part, without the express written consent of [Valuation Firm].
- 29. If applicable, we have used financial projections approved by management. We have not examined the forecast data or the underlying assumptions in accordance with the standards prescribed by the American Institute of Certified Public Accountants and do not express an opinion or any other form of assurance on the forecast data and related assumptions. The future may not occur as anticipated, and actual operating results may vary from those described in our report. This would not affect our conclusion of value as of the valuation date of this valuation.
- 30. We have no responsibility or obligation to update this report for events or circumstances occurring subsequent to the date of this report.
- 31. Our report is based on historical and/or prospective financial information provided to us by management and other third parties. This information has not been audited, reviewed, or compiled by us, nor has it been subjected to any type of audit, review, or compilation procedures by us, nor have we audited, reviewed, or compiled the books and records of the subject company. Had we audited, reviewed, or compiled the underlying data, matters may have come to our attention that would have resulted in our using amounts that differ from those provided; accordingly, we take no responsibility for the underlying data presented or relied upon in this report.
- 32. Our valuation judgment, shown herein, pertains only to the subject business, the stated value standard (fair market value), as at the stated valuation date, and only for the stated valuation purpose(s).
- 33. The various estimates of value presented in this report apply to the valuation report only and may not be used out of the context presented herein.
- 34. In all matters that may be potentially challenged by a court or other party we do not take responsibility for the degree of reasonableness of contrary positions that others may choose to take, nor for the costs or fees that may be incurred in the defense of our recommendations against challenge(s). We will, however, retain our supporting work papers for your matter(s), and will be available to assist in defending our professional positions taken, at our then current rates, plus direct expenses at actual, and according to our then current Standard Professional Agreement.

- 35. No third parties are intended to be benefited. An engagement for a different purpose, or under a different standard or basis of value, or for a different date of value, could result in a materially different opinion of value.
- 36. [Valuation Firm] retains all exclusive rights to copyrights to the report and to control the issuance of copies by others, and the client has no right of diffusion, reproduction, distribution, or sale. The client may reproduce ten [other] copies of the report solely for its internal use. Otherwise, the client may not reproduce the report without the prior written consent of [Valuation Firm].
- 37. Our report will not be used for financing, or included in a private placement or other public documents, and may not be relied upon by any third parties.
- 38. The report assumes all required licenses, certificates of occupancy, consents, or legislative or administrative authority from any local, state, or national government, or private entity or organization have been or can be obtained or reviewed for any use on which the opinion contained in the report is based.
- 39. The obligations of [Valuation Firm] are solely corporate [Entity] obligations, and no officer, director, employee, agent, contractor, shareholder, owner, or controlling person shall be subject to any personal liability whatsoever to any person, nor will any such claim be asserted by or on behalf of any other party to this agreement or any person relying on the report.
- 40. [Valuation Firm] does not consent to be "expertised" with respect to matters involving the Securities and Exchange Commission. For purposes of this report, the foregoing sentence means that [Valuation Firm] shall not be referred to by name or anonymously in any filing or document. Should you breach this stipulation and refer to [Valuation Firm] by name or anonymously, you will amend such filing or document upon the written request of [Valuation Firm].
- 41. We express no opinion for matters that require legal or other specialized expertise, investigation, or knowledge beyond that customarily employed by business appraisers.
- 42. Unless stated otherwise in this report, we express no opinion as to: (1) the tax consequences of any transaction that may result, (2) the effect of the tax consequences of any net value received or to be received as a result of a transaction, and (3) the possible impact on the market value resulting from any need to effect a transaction to pay taxes.

6.4.2.2 Valuation Representation/Certification I [we] represent/certify that, to the best of my [our] knowledge and belief:

- The statements of fact contained in this [type of report] report are true and correct.
- The reported analyses, opinions, and conclusions of value are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, independent, unbiased, objective professional analyses, opinions, and conclusions.
- I have no present or prospective/contemplated financial or other interest in the business or property that is the subject of this report, and I have no personal financial or other interest or bias with respect to the property or the parties involved.

- I have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- My engagement in this assignment was not contingent upon developing or reporting predetermined results.
- My compensation for completing this assignment is fee-based and is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the outcome of the valuation, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- The economic and industry data included in the valuation report have been obtained from various printed or electronic reference sources that the valuation analyst believes to be reliable. The valuation analyst has not performed any corroborating procedures to substantiate those data.
- My analyses, opinions, conclusions (valuation engagement), and this [type of report] appraisal report were developed in conformity with the American Institute of Certified Public Accountants Statements on Standards for Valuation Services VS Section 100 and the [if appropriate] 2016–2017 Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation and the ethics and standards of the American Society of Appraisers [state other association standards as appropriate].
- The parties for which the information and use of the valuation report is restricted are identified; the valuation report is not intended to be and should not be used by anyone other than such parties.
- The valuation analyst has no obligation to update the report or the opinion of value for information that comes to my attention after the date of the report.
- No one provided significant business and/or intangible asset appraisal assistance to the person signing this certification. [OR] The valuation analyst used the work of one or more outside specialists to assist during the valuation engagement. The specialist is Mr./Ms. ______ with the firm ______. [The valuation report should include a statement identifying the level of responsibility, if any, the valuation analyst is assuming for the specialist's work].
- This report and analysis were prepared under the direction of [Lead Appraiser] with significant professional assistance from [Name]. [Lead Appraiser] is a Certified Public Accountant licensed in the State of [State(s)] and [if appropriate] is accredited in business valuation by the American Institute of Certified Public Accountants. [if appropriate] He or she is also an accredited senior appraiser with the American Society of Appraisers, a certified business appraiser with the Institute of Business Appraisers, and a certified valuation analyst with the National Association of Certified Valuators and Analysts.
- [if appropriate] The American Society of Appraisers has a mandatory recertification program for its Senior Members. [Appraiser(s)] is [are] in compliance with that program.

[Lead Appraiser]	[Valuation Firm]

6.4.2.3 NACVA This valuation and report were completed in accordance with the National Association of Certified Valuators and Analysts' Professional Standards.

6.4.2.4 The Institute of Business Appraisers

- Summary Appraisal Report
- Detailed Appraisal Report
- Calculation Report

This analysis and report were completed in accordance with the "Institute of Business Appraisers' Professional Standards."

Disclaimer of Warranties: The information provided and commented upon in these materials is designed to provide guidance to valuation analysts only. Such information, comments, and materials are not to be used as a substitute for professional judgment. The information, comments, and materials are to be used for informational purposes only. Any person consulting these materials is solely responsible for implementation of this guide as it relates to the particular matter for which the end user refers to these materials. Implied warranties of merchantability and fitness of purpose, if any exist, and all other warranties, expressed or implied, are expressly waived by any user of these materials. The developers and reviewers and Valuation Products and Services, LLC, or their owners, employees, or partnership(s) shall not be liable for any direct, indirect, special, or consequential damages, including, without limitation, attorneys' fees or costs arising from any use of these guides or the information or material contained herein.

6.5 KEEPING UP TECHNICALLY

The following list is intended to provide industry professionals with resources and suggestions for maintaining their professional designation(s) and keeping up to date with the valuation industry.

- Attend one or two national conventions per year
- Attend all local events
- Join state CPA society valuation/litigation sections or local ASA, IBA, NACVA chapters:
 - Good information/resources
 - Good for mentoring
- Read:
 - At least two to four different periodicals per year
 - At least one valuation book per year
 - Organization E-Flashes or Alerts:
 - Financial Consulting Group (FCG)
 - AICPA
 - ASA
 - BVResources
 - Once a year, review:
 - Revenue Ruling 59-60

- Duff & Phelps Valuation Handbook—Guide to Cost of Capital
- USPAP
- Standards of the BV associations to which you belong
- The construction of transaction databases relied upon
- Volunteer for committee work
- Join FCG

6.6 PRACTICE BENCHMARKS FOR PRODUCTIVITY, BILLINGS, REALIZATION, AND THE BOTTOM LINE

The following list is intended to demonstrate basic items that should be considered when a professional firm establishes internal productivity and billing procedures. Some information is based on a best-case model.

- Productivity:
 - General annual benchmarks depend on practice and type of work.
 - Staff above 90 percent.
 - Managers (nonselling) above 80 percent.
 - Partners above 50 percent.
 - Group must understand that some months are way up and some way down depending on work volume and staff availability.
- Billings:
 - High-end, efficient practice can bill an hourly rate three to four times raw cost hourly rate of staff.
 - Should bill between 90 percent and 100 percent of billable hours generated by staff.
 - May be lower for firms with heavier reliance on fixed-fee engagements.
 - Should collect between 90 percent and 100 percent of what is billed to client.
- Realization:
 - Overruns should be investigated and managed with client before final billing and preferably earlier.
 - Engagement letter language important here.
- Bottom Line:
 - High-end, efficient practice should be over 50 percent profit margin before partner compensation.
 - Over 30 percent acceptable depending on the type of practice and type of work.
- Golden Rule:
 - Seldom really followed.
 - Very easy . . .
 - Tie performance measures *directly* to pay.

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6.7 FINDING, TRAINING, AND RETAINING THE RIGHT STAFF FOR YOUR PRACTICE

The following list is intended to list basic items that should be considered for a professional firm's workforce.

- Finding Staff:
 - Use your staff to find staff:
 - Provide incentives.
 - Post at the local universities:
 - Full time.
 - Interns.
 - Competition
 - ASA, BVR, or E-Letter.
 - State CPA Society.
- Training Staff:
 - In-house always the best
 - Staff should constantly be asking questions.
 - Partners should always be asking staff why they did what they did.
 - AICPA.
 - ASA.
 - NACVA.
 - IBA.
- Retaining Staff:
 - Treat them with respect.
 - Fear-based leadership is not leadership:
 - Only effective in the short term.
 - Learning in a fear-based environment takes an emotional toll.
 - Keep them informed.
 - Team players know what is going on.
 - Pay them above market.
 - Much more expensive to replace staff than to keep them.
 - Don't worry, your competition won't do this.
 - Provide growth opportunities.
 - Transfer existing relationships to staff.
 - Partner/principal can get new clients much easier than staff.
 - Where feasible, flexible work arrangements.

6.8 DELEGATE LITIGATION ENGAGEMENTS TO STAFF

The following list is intended to demonstrate partner and staff traits and practices that are critical in delegating litigation engagements.

- What it takes:
 - A change in leadership philosophy:
 - Cannot be control freak.

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- Must want to grow your practice.
- Type of staff matters but it's you, not the staff.
- Must have trust but rely on controls and checks.
- Access to leader:
 - A five-minute conversation with staff can save hours and sometimes even days of work.
 - Must not get annoyed when constantly asked questions and direction from staff
 - It really takes only one to three hours a day of leader time.
 - Leader can be chargeable through inspection and direction (depends on engagement).
 - Each staff person should have the leader's cell phone.
- The right staff:
 - Again, leadership is critical, but the right staff members are important.
 - Detail orientation . . . no shooting from the hip.
 - Must feel comfortable asking questions.
 - Cannot be afraid to admit they are puzzled or do not understand what they are doing.
 - Up to leader to set the tone.
 - The model works best with more senior staff but will work with less experienced staff as well.
 - Willingness to ask each other questions as well as the leader.
- Controls and checks:
 - People do what you inspect, not what you expect.
 - Check each person at least once daily.
 - Effective in smaller groups.
 - Larger organizations: Check direct reports.
 - Rough rule of thumb: Check junior staff at a time interval of two hours or so for each year of experience.
 - Tell them to bring their work and explain the task they are working on, how long they expect to be working on that task, and what their next two tasks are.
 - Make sure they understand the big picture and not just the specific piece they are working on.
 - More senior staff should also check in at least once a day or so.
 - Schedule detailed reviews of work completed to date at reasonable intervals.
 - Where feasible, make staff take notes and tell you what was agreed upon at the meeting before they move on.
 - At the next meeting, make sure they have their notes.
 - Use control sheets where possible.
 - This is a list of who reviewed it and when it was reviewed (Appendix 6.3).
 - Use of cold reviews.
 - It is up to the leader to determine how detailed these control sheets need to be.
 - Summary of findings binder:
 - Standardize it.
 - Everything important summarized with copies of the major backup items.
 - Should point to where everything is and where it came from, including other file binders.
 - Use it to prepare for trial, if necessary.

- Footing, proofing, and comparing:
 - Done by another staff member.
 - Signed off by leader.
 - Recheck changes at end of engagement since such changes are often made under deadline pressure.
- Bottom line:
 - Should go up.
 - Leader must still get into the details, but if engagement is organized properly, that will happen.
 - Know the strengths and weaknesses of each staff member.
 - Remember, you can change habits but not personalities.
 - Leader must be disciplined and consistent.

6.9 APPENDIX 6.1: SAMPLE GIBRALTAR E-FLASH COVER SHEET

Welcome to

The Gibraltar Business Appraisals Court E-Flash, easily accessible information on important tax court information.

Please click on the attached PDF file to access news you can use. We encourage you to forward this E-Flash, with attribution intact, to other interested parties.

For the full text of this case or more information on Gibraltar, visit our website at www.4avalue.com.

Gibraltar Business Appraisals, Inc. provides Business Valuation, Business Brokerage, and Corporate Financial Consulting Services.

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6.10 APPENDIX 6.2: SAMPLE GIBRALTAR E-FLASH



1325 Dry Creek Drive, Suite 201 Longmont, CO 80503 Local 303.532.2545 Toll Free 888.428.2583

Financial Consulting Group E-Flash Vol. 12:4

The Ringgold Telephone Company v. Commissioner

T.C. Memo 2010-103

By Chris D. Treharne, ASA, MCBA, BVAL and Fawntel Romero, AM Gibraltar Business Appraisals, Inc.

Post Valuation Date Transaction Relevant

The Tax Court determined whether a post valuation date sale of a partnership interest should be included as evidence of fair market value.

Additionally, the Tax Court decided the taxpayer's expert (who had a business valuation designation) was more credible and persuasive than the IRS' expert (who was not accredited in business valuation and had never appraised a company in the telecommunications industry).

BV TAKEAWAY

In a telephone conversation with the taxpayer's expert, the authors confirmed that both experts tax affected the subject S corporation's income using C corporation income tax rates. According to the taxpayer's expert, the trial occurred during December 2008, well after the controversial Tax Court decisions asserting that tax affecting S corporation income is inappropriate, yet the issue was not discussed at trial. The absence of an IRS challenge on this issue should not be overlooked.

Telephone Company Converts to S Corporation The Ringgold Telephone Company ("Taxpayer" or

"Ringgold") provides telecommunication services. On January 1, 2000, Ringgold converted from a C corporation to an S corporation for federal tax purposes.

Ringgold, Bell South Mobility, Inc. ("BellSouth"), Trenton Telephone Co., and Bledsoe Telephone Co. each owned 25% partnership interests in Cellular Radio of Chattanooga ("CRC").

CRC's primary asset was a 29.54% limited partnership interest in Chattanooga MSA Limited Partnership ("CHAT"). Accordingly, Ringgold indirectly owned a noncontrolling interest in CHAT.

On November 27, 2000, Ringgold sold its 25% partnership interest in CRC to BellSouth for \$5,220,043.

BellSouth wholly owned Chattanooga CGSA, the sole general partner of CHAT and its controlling owner. Chattanooga CGSA's combined general and limited partner interest in CHAT was 55.31%.

A business valuation report was issued by Warinner, Gesinger & Associates, L.L.C., on February 15, 2000, which estimated the value of the CRC interest to be approximately \$2,600,000 ("February 2000 Report").

Taxpayer's Position

On Ringgold's 2000 Form 1120S, the February 2000 Report's value, \$2,600,000, was used to calculate the IRC § 1374 built-in gain attributable to the CRC interest as of January 1, 2000.

IRS Position
The IRS determined the January 1, 2000, fair market value of the CRC interest was \$5,243,602 (based on its November 27, 2000, sale to BellSouth) - instead of the February 2000 Report's \$2,600,000 - and asserted a tax deficiency and IRC § 6662(a) taxpayer penalty based on the difference.

Court's Ruling

With regard to the value of the subject ownership interest, the court considered the following:

- The sale price of Ringgold's partnership interest in CRC was evidence of value.
- The Taxpayer, court, and IRS all agreed that the November 2000 sale occurred within a reasonable time of the valuation date (i.e., no significant events that would affect the share price occurred between January and November 2000) and was an arm's-length sale in the normal course of business.
- The sale price should be adjusted to reflect "special circumstances surrounding the buyer, the seller, or the transaction generally that could have skewed the sale price from a measure of true fair market value that would have been reached between a hypothetical buyer and seller absent those circumstances."
- The Taxpayer argued that a controlling interest holder would place a greater value on a minority interest compared to a hypothetical buyer who lacks control. Therefore, the purchase price reflects a control value. The IRS argued that because BellSouth already indirectly owned a controlling interest in CHAT, it would not have paid a control premium for the interest. The court recalled that the Taxpayer's own expert indicated BellSouth had no incentive from a control perspective to purchase the CRC interest. The court disagreed that a lack of control discount should be applied to the purchase price.
- In addition, the Taxpayer argued that BellSouth paid a premium for the CRC interest to discourage the other partners from exercising their rights of first refusal. As part of the argument, the Taxpayer's expert testified that if the sale was a strategic acquisition, BellSouth would pay a premium for the CRC interest. The court found the Taxpayer's expert to be a credible witness and found no evidence contradicting his testimony.

Based on the preceding, the court concluded that the sale price was probative, but not conclusive, evidence of the fair market value of the CRC interest on the valuation date.

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The court also provided insightful information with regard to the two experts:

- The Taxpayer's witness, William E. King, CPA/ABV, is accredited in business valuation by the American Institute of Certified Public Accountants. Additionally, he has extensive experience in telecommunications valuations.
- The IRS' witness, Steven C. Hastings, CPA, is not accredited in business valuation and had never performed a business valuation for a telecommunications company prior to the subject appraisal.

The court found Mr. King to be a more persuasive expert relative to Mr. Hastings. In particular, his experience in valuing telecommunication companies allowed him to factor in industry specific conditions. Unlike Mr. Hastings, Mr. King also considered the distribution history of CHAT in his valuation analysis. The court recognized the importance of

the distribution paying history to a minority shareholder who is unable to force the company to pay distributions.

To determine the fair market value of the CRC interest, the court considered the sale price of the CRC interest, the King Report, and the Hastings Report, in addition to all other relevant factors.

The court found the taxpayer's expert credible and relied on his expert report rather than the IRS' expert report. However, Mr. King failed to consider the post-valuation date sale of the partnership interest to BellSouth in his analysis, a factor the court concluded should have been considered. To determine the value of the CRC interest, the court gave equal weighting to Mr. King's business valuation analysis, Mr. King's distribution yield analysis, and the BellSouth sale price.

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6.11 APPENDIX 6.3: SAMPLE CONTROL SHEET

Information Received from Client

Valuation Group Engagement Log Sheet

Client		Fee (range)	
Client Contact			
Address		Budget	
Phone			
Facsimile			
Subject Company			
Nature of Business			
Interest Valued			
Purpose of Valuation			
Date of Valuation			
	Initial	Date	W/P Reference
Engagement Selection			
Independence Relationship Check Performed		_	_
Proposal Issued	-	_	-
Engagement Letter Issued		_	_
Engagement Letter Executed			_
Indemnification Obtained, if applicable			
Engagement Preparation			
Date Report Due			
Information Request Sent			_

	Initial	Date	W/P Reference
Analysis/Report Technical Review			
Staff			
Manager			
Shareholder			
Review Engagement Letter for Changes in Scope			
Draft Analysis/Report Reviewed			
Staff			
Manager			
Shareholder			
Draft Analysis/Report Edit			
Draft Analysis/Report P			
Draft Analysis/Report Issued			
Final Analysis/Report Reviewed			
Staff			
Manager			
Shareholder			
Cold Review, if applicable			
Working Papers Signed Off			
Final Analysis/Report Issued			

Practice Management Workflow Procedures

INTRODUCTION

These workflow procedures are designed to assist midsize firms in maintaining the continuity of the client report and exhibits and will eliminate unnecessary draft files. The purpose of these procedures and checklists is to define the checks and balances that are needed to reduce exposure. These procedures are also completely dependent on each firm's internal policies, which can be and often are different from what is presented here. For example, policies concerning notes and drafts can and do differ by firm. In most cases, large firms will have already established procedures and policies. Conversely, small firms may not have the staff to implement these procedures with the appropriate degree of independence. However, both large and small firms may find the checklists useful in their practice.

In order to comply with the procedures, emails and drafts can be created according to the appropriate templates that exist within the system. Correspondence with the client, including emails both sent and received, can be retained in the client folder. Additionally, verbal conversations can be logged on the appropriate form and filed in the client's folder.

If a report draft is created and sent to the attorney, any changes that the attorney recommends may be retained in the client's file and may potentially be used in future litigation. (Note: There are some exceptions.) Additionally, drafts sent to the client may be retained both electronically and in the client's file.

The initial section presents summary flowcharts. The remaining section introduces an example of detailed practice management workflow processes. The process shown here is copyrighted by The Financial Valuation Group of Florida, Inc., and is used with permission. Certain revisions have been made by the authors.

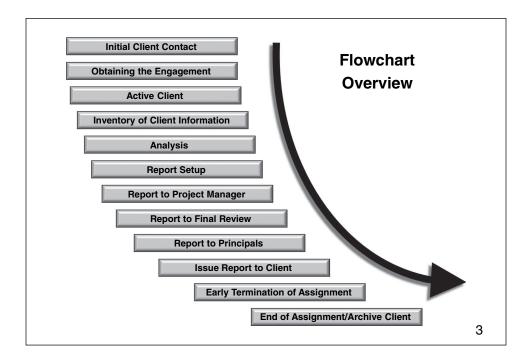
SECTION I—PRACTICE MANAGEMENT FLOWCHARTS

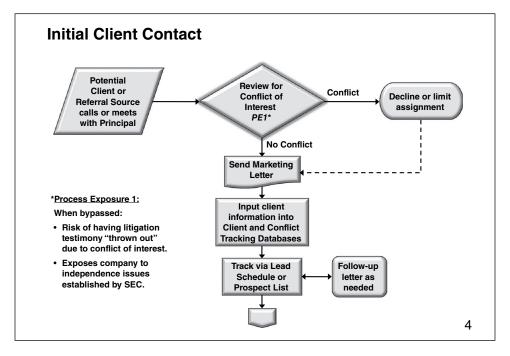
Practice Management Workflow Procedures Summary Flowcharts

1

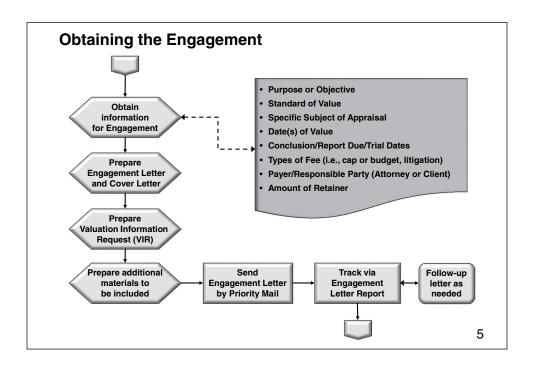
- Overall Caveat: Most of the information is presented in a best-case scenario where everything is almost perfect. It will not be possible or relevant to adopt all of the procedures, policies, and ideas. Each professional and firm should choose the resources that fit the firm/group, its philosophy, and culture.
- Caveat: For discussion and educational purposes only. Valuation and litigation services are very much affected by specific facts and circumstances. As such, the views expressed in these written materials do not necessarily reflect the professional opinions or positions that the presenter would take in every assignment or practice, or in providing valuation or litigation services in connection with an actual engagement, matter, or practice. Every situation and practice is unique, and differing facts and circumstances may result in variations of the information presented. The authors assume no responsibility for any errors in this information, use of this information, or reliance on the information. Use at your own risk.

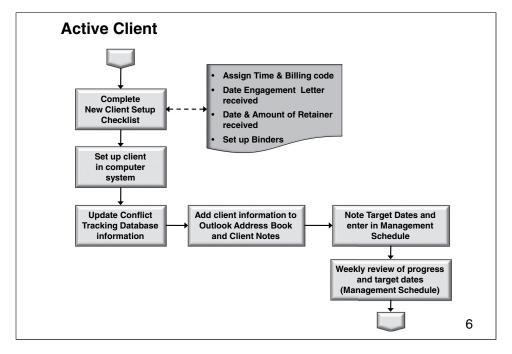
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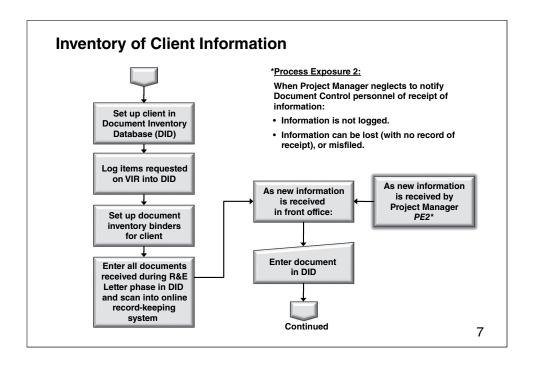


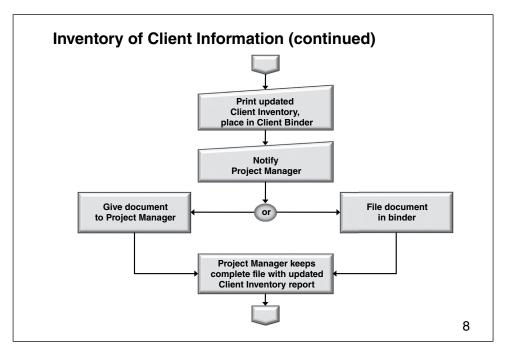
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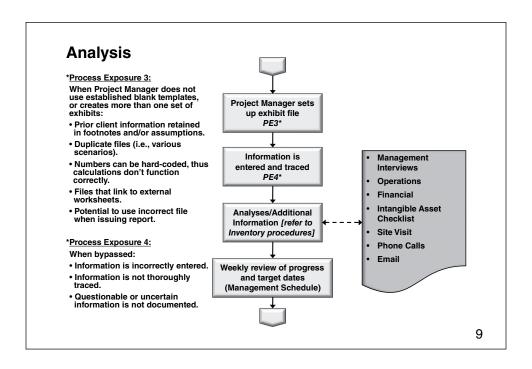


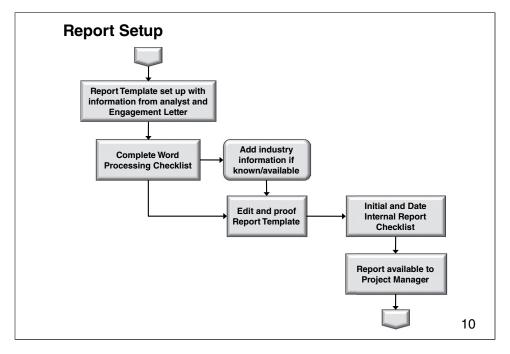
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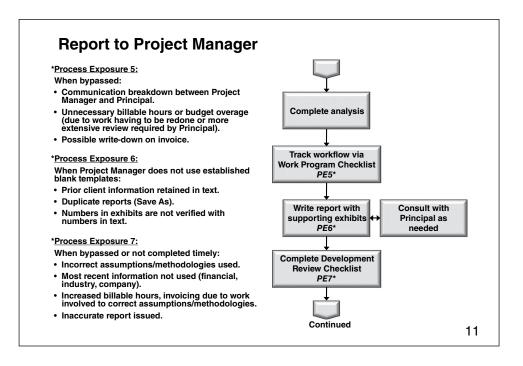


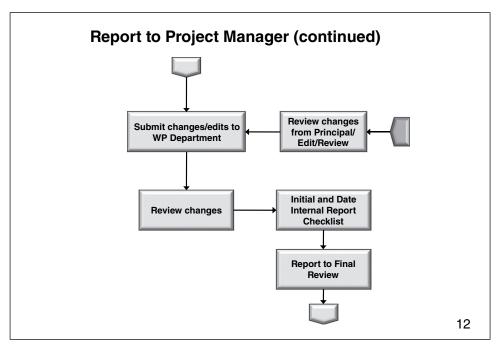
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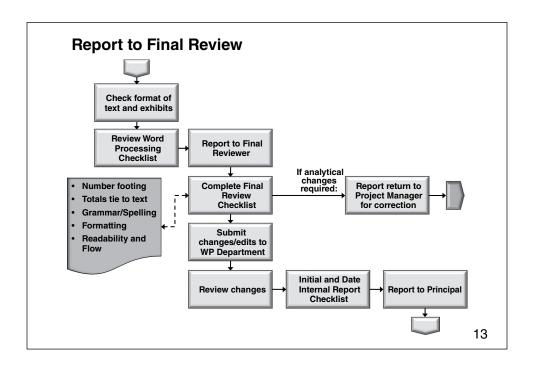


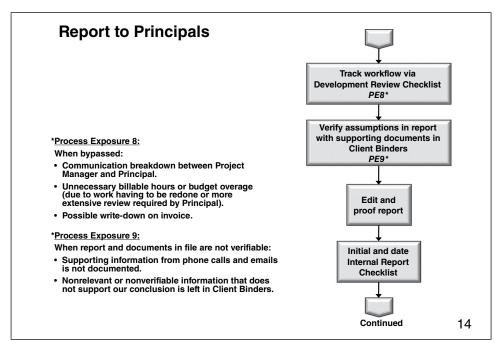
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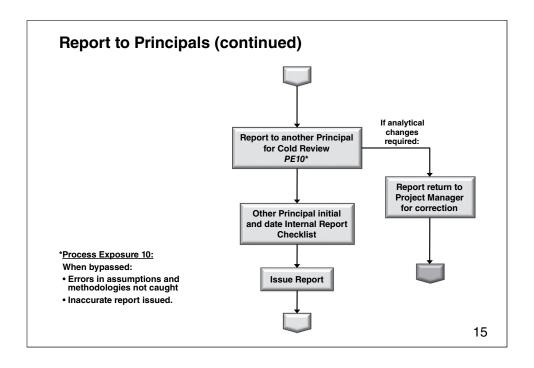


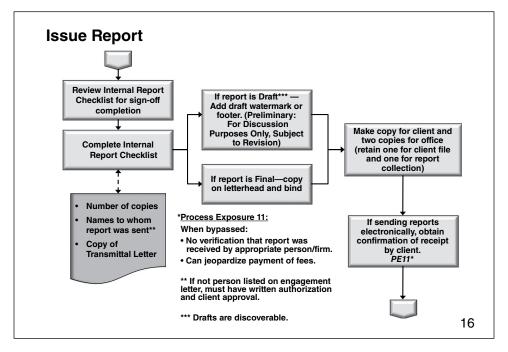
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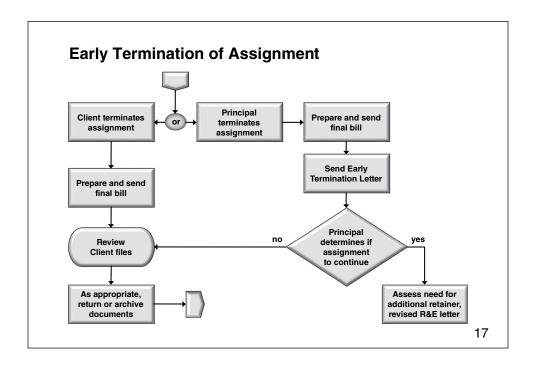


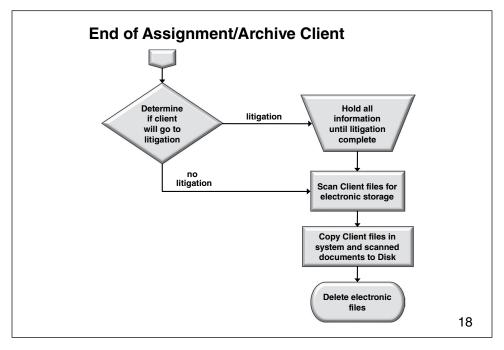
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SECTION II—PRACTICE MANAGEMENT WORKFLOW PROCESS

Initial Client Contact

- I. Potential Client or Referral Source calls or meets with firm Principal.
 - **A.** Principal completes blue **Contact Information Sheet** (Exhibit 7.1).
 - **B.** Contact Information Sheet is given to Support Staff by Principal for Relationship Review.
- **II.** Support Staff dates receipt of Contact Information Sheet and completes Relationship Review.
 - **A.** Support Staff searches Relationship Tracking Database (or other record-keeping method) to determine if potential relationship exists.
 - **B.** If no potential relationship found in Relationship Tracking Database, Support Staff completes Relationship Review Checklist (Exhibit 7.2).
 - 1. Support Staff emails other Company offices with prospective client information to check for potential relationship with other Company offices.
 - 2. Support Staff follows up with phone calls to those offices that do not respond to email.
 - 3. Support Staff indicates if there is or is not a potential relationship between other offices and prospective client.
 - **4.** If potential relationship exists, Support Staff indicates reason for potential relationship on Relationship Review Checklist.
 - 5. Support Staff initials and dates completion of Relationship Review.
 - **6.** Support Staff attaches Relationship Review Checklist to Contact Information Sheet.
 - C. Results are relayed via email or written documentation to Principal.
 - D. If Principal determines relationship exists using either Relationship Review Checklist or other means of determination, Principal notifies Client or Referral Source by Engagement Declination Letter (Exhibit 7.3) indicating if engagement is declined or limited.
 - 1. Engagement Declination Letter is stored electronically on server in the client's electronic file.
 - 2. A copy of the letter is placed in the client's folder.
- III. Principal defines potential engagement and completes Lead section of green Lead and Project Information Sheet (Exhibit 7.4), including:
 - **A.** Type
 - **B.** Name(s) of Client(s)
 - C. Name(s) of Company(ies)
 - **D.** Name(s) of Attorney(ies)
- IV. If Principal requests Marketing Letter (Exhibit 7.5) be sent to potential client:
 - **A.** Support Staff designated by Principal creates new marketing letter from template.
 - Support Staff stores the electronic copy of the marketing letter on server.
 - 2. Support Staff places a copy of the marketing letter in client's folder.
 - 3. Client's folder is labeled with blue label designating a lead/prospect.

- B. Support Staff mails marketing package via First Class mail.
- C. Principal follows up with potential client within 10 days.
- V. Schedule Controller inputs information into Client Database (or other Client Management System), including:
 - **A.** Client Name(s)
 - B. Contact Name(s)
 - C. Company Name(s)
 - D. Date of Contact
 - E. Type of Engagement
 - F. Assigned Principal
- VI. Schedule Controller inputs information into Relationship Tracking Database, including:
 - A. Client Name(s)
 - B. Contact Name(s)
 - C. Company Name(s)
 - D. Date of Contact
 - E. Type of Engagement
 - F. Responsible Company office
- VII. Weekly on Friday, Schedule Controller generates Lead Schedule (Exhibit 7.6), which contains a list of existing leads and new leads generated during the week.
- VIII. Weekly on Monday, Lead Schedule is reviewed for follow-up during Monday staff meeting.
 - A. Leads marked for follow-up by Principal are contacted via Lead Follow-up Letter (Exhibit 7.7) generated by Support Staff. Support staff creating letter communicates with Schedule Controller via email or verbally that letter is sent.
 - 1. Support Staff enters date of follow-up on Lead Schedule.
 - 2. Support Staff stores Lead Follow-up Letter on the server.
 - Support Staff places a copy of the Lead Follow-up Letter in client's folder.
 - **B.** If Lead is marked inactive by Principal:
 - 1. Schedule Coordinator indicates "Inactive" status in Client Database.
 - 2. Support Staff moves potential client's marketing folder to inactive file drawer.

Obtaining the Engagement

- Principal obtains information from client and updates Engagement section of Lead and Project Information Sheet.
 - A. Such information will include:
 - 1. Purpose or Objectives of valuation
 - 2. Standard of Value
 - 3. Specific Subject of Appraisal
 - 4. Date(s) of Value
 - 5. Conclusion/Report Due/Trial Dates

- **6.** Types of Fee (i.e., cap or budget, litigation)
- 7. Payer/Responsible Party (Attorney or Client)
- 8. Amount of Retainer required
- B. Verbal Communication
 - The Principal having the verbal exchange with the client is responsible for documenting pertinent information from the conversation on a blue-colored Contact Sheet. If it is determined that a new Client Contact exists, Principal will notify Support Staff by indicating same in area on Contact Sheet.
 - 2. The contact sheet is given to the Support Staff by the Principal for inclusion into the Client Database and Relationship Tracking Database. Contact sheets may be accumulated by the Principal; however, they must be delivered to the Support Staff frequently.
 - 3. Contact Sheet is placed in client folder by Support Staff.
- C. Written Correspondence
 - 1. Written correspondence created or requested by Principal to a client can be copied and filed into the client's folder.
 - 2. If the correspondence is sent using a form of mail that creates a tracking record, the tracking slip can be filed in the client's folder.
 - 3. If correspondence was generated by Support Staff, Support Staff notifies Principal that task is complete.
- II. Support Staff creates Representation and Engagement Letter (See Chapter 6, "Marketing, Managing, and Making Money in Valuation Services") and Representation and Engagement Letter Cover Letter (Exhibit 7.8) from Template.
 - **A.** Support Staff stores the electronic Representation and Engagement Letter and the electronic Representation and Engagement Letter Cover Letter on the server.
 - B. Support Staff places a copy of the Representation and Engagement Letter in client's folder.
 - C. Client's folder is labeled with a red label.
 - D. Schedule Coordinator updates Client Database with new information.
- III. Project Manager prepares initial Valuation Information Request (VIR) General (See Chapter 8, Checklist 8.5).
 - **A.** Support staff generates the VIR to send to the client based on information received from the Project Manager.
 - **B.** Support Staff stores the electronic Valuation Information Request on the server.
 - C. Support Staff places a copy of the Valuation Information Request and the Engagement Letter Cover Letter in client's folder.
 - **D.** Support Staff prepares additional materials to be included as indicated by Principal. Such materials may include:
 - 1. Firm brochure
 - 2. Articles
 - 3. Books
 - 4. Marketing package
- IV. Support Staff sends Representation and Engagement Letter with VIR and additional materials by Priority Mail (for tracking).
 - A. Receipt for priority mail is placed in client's folder.

- V. Schedule Controller updates information in Client Database, including:
 - A. Date of Contact
 - B. Date Engagement Letter Sent
 - C. Amount of Retainer Requested
 - D. Assigned Project Manager
- VI. Weekly on Friday, Schedule Controller generates Engagement Letter Schedule (Exhibit 7.9). The Engagement Letter Schedule lists all outstanding engagement letters.
- VII. Weekly on Monday, Engagement Letter Schedule is reviewed for follow-up during Staff Meeting.
 - **A.** If follow-up is required as determined by Principal, Schedule Controller marks follow-up date on Engagement Letter Schedule.
 - 1. Engagement Letters marked for follow-up are contacted via Representation and Engagement Letter Follow-up Letter (Exhibit 7.10).
 - **a.** Support Staff creates the Representation and Engagement Letter Follow-up Letter (RELFL).
 - **b.** Support Staff stores the electronic copy of the RELFL on the server.
 - c. Support Staff places a copy of the RELFL in client's folder.
 - **B.** If engagement is deemed inactive by Principal:
 - 1. Representation and Engagement Letter, Valuation Information Request, and Representation and Engagement Letter Cover Letter are moved to disk by Support Staff for storage.
 - 2. Representation and Engagement Letter, Valuation Information Request, and Representation and Engagement Letter Cover Letter are deleted from server by Support Staff.
 - 3. The client's physical folder is saved for six months.
 - **4.** If requested by the client, information sent by the client relating to the valuation is returned to the client.
 - 5. After six months, the client's physical folder is destroyed out by Support Staff.

Active Client

- I. Project Manager is assigned by Principal (if not already assigned).
- **II.** Client Production Coordinator (CPC) is assigned by Principal.
- III. CPC completes New Client Setup Checklist (Exhibit 7.11), including:
 - **A.** Assign Time & Billing Code using first 12 characters of client name.
 - **B.** Indicate the date the Representation and Engagement Letter was received.
 - C. Indicate amount of retainer and date received.
 - **D.** Set up client binders and deliver them to Project Manager, including:
 - 1. Labels
 - 2. File Index
 - 3. Blank Internal Report Signoff sheet
 - 4. Blank New Client Report Request
 - 5. Blank New Client Exhibit Request
 - 6. Blank Math Review checklist

- 7. Blank Development Review checklist
- 8. Blank Report Compliance checklist
- 9. Blank Management Questionnaires
- 10. Copy of Representation and Engagement Letter and VIR sent to client, or blank VIR
- E. Add client to Time and Billing software.
- F. Assign Copier and Phone code if applicable.
 - 1. Update code list on copier.
 - 2. Update phone system.
- IV. CPC creates client folder in computer using the following protocol:
 - A. A main client folder is created on the server in the following location: F:/ Clients/Active/xCLIENTx.
 - **B.** If there is more than one valuation for a client, the file will contain a folder for the year in which the valuation was performed. (Example: F:/ Clients/Active/xCLIENTx/2010).
 - C. If there is more than one valuation for a client in a particular year, the file will contain a folder for each individual valuation name by type and/ or date of valuation within the year folder. (Example: F:/Clients/Active/xCLIENTx/2010/Business Comb (or DOV 4-15-10)).
 - **D.** In the final valuation folder created using the previous criteria, create one (1) subfolder for each of the following:
 - Correspondence
 - Billing
 - Analysis
 - Report
 - Engagement Letter
 - Information from Client
 - E. Move all information from Engagement Letter folders and Marketing folder on server to client Engagement Letter folder.
- V. CPC updates Conflict Tracking Database information with additional information received on VIR, correspondence, and conversations with client as additional information is received by CPC, Project Manager, or Principal.
- VI. CPC adds Client information to Address Book (Microsoft Outlook or other tracking system).
- VII. Target Dates are entered in the Client Database and/or Company Calendar by CPC. Target dates include:
 - A. Date report is due
 - **B.** Date(s) of depositions
 - C. Date of trial
 - **D.** Date(s) of upcoming meetings, site visits, or phone calls
- VIII. Schedule Controller generates Management Schedule Report (Exhibit 7.12) weekly on Friday, which includes a list of all Active clients, On-hold clients, and outstanding Engagement Letters. This report shows:
 - A. Name of client
 - B. Principal and Project Manager(s) assigned to client
 - C. Target Dates
 - D. General comments about assignment status

- IX. Management Schedule Report is reviewed weekly on Monday during Staff meeting.
 - **A.** New Target Dates and other assignment information revealed during management meeting are reviewed and noted as appropriate.
- **X.** After the weekly Staff meeting, CPC updates Client Database for each assigned client with new information and target dates (Schedule Controller updates unassigned clients).

Inventory of Client Information

Note: All client/prospect information is to be stored in the appropriate folder on the server. Local computer hard drives are not available.

- **I.** CPC sets up client in Document Control System (or other tracking system) as part of Client Setup Checklist.
- **II.** DCP records items requested on the initial VIR in the Document Control System, including:
 - A. Description of item requested
 - B. Date requested
- **III.** On a frequent basis, DCP enters items received in the Document Control System, including:
 - A. Section and Type of document
 - B. Date received
 - C. Year of information (ex: 2010 Interim Financial Statements)
 - **D.** Description of information if different from Type
 - E. Location of document in binder (if more than one binder or section)
- IV. On a frequent basis, DCP notifies primary Project Manager and Principal that information has been received.
- V. DCP files document in Client Binder, or gives document to Project Manager (per Project Manager's verbal or written request).
- VI. DCP prints updated **Document Control System Report** (Exhibit 7.13) each time new information is received or requested.
 - A. DCP files updated Document Control System Report in the front of the client's Administrative binder.

Analysis

Note: All client/prospect information is to be stored in the appropriate folder on the server. Local computer hard drives are not available. Project Manager will not copy previous exhibits. If Project Manager requires a template from a previous exhibit to use on the current client, Project Manager can submit a request to the CPC for template creation by completing the New Client Exhibit Request form.

- I. Project Manager requests Analysis File from CPC by completing a New Client Exhibit Request (Exhibit 7.14).
 - **A.** If a standard template is requested, the finished template is due in four hours.
 - B. If a new template (from previous exhibits) is requested, the finished template is due in the amount of time specified by Project Manager (typically 1–2 days). Once a new template is created, a copy of that new template is maintained for use in the future. Future requests for that same template would be considered standard template requests.

- **II.** CPC creates new Exhibit File in Client folder in computer from Analysis Template. Analyses are conducted within this Exhibit File.
- III. Project Manager enters/processes financial and operational information for assignment in accordance with Work Program Checklist (see Chapter 8, Checklist 8.37).
- IV. Information entered in Exhibit File is verified by nonprimary Project Manager or staff by completing **Math Review Checklist** (Exhibit 7.15). The nonprimary Project Manager or staff is assigned by Principal.
 - A. Each number in Exhibit File is verified against the source document.
 - B. Calculations are manually recomputed for confirmation.
 - C. Information that populates other exhibits is verified.
 - **D.** Individual who verifies information initials and dates the **Internal Report Sign-off Sheet** (Exhibit 7.16) for the Math Review task.

Note: No staff member is to initiate contact with the client except at the direction of the Project Manager.

- V. During the analysis, the Project Manager may require additional information. This may be obtained through:
 - A. Management Interviews
 - 1. Operations (see Chapter 8, Checklist 8.13)
 - 2. Financial (see Chapter 8, Checklist 8.14)
 - B. Site Visit (using Management Interview checklists)
 - C. Emails
 - Email correspondence by ANY staff member can be printed by that staff member and filed into the Client's file. This includes both emails to and from the staff member. Items can be printed and filed AS THEY ARE RECEIVED AND/OR SENT and not accumulated to be printed at a later date.
 - **a.** Any email that is a request for information from the Client MUST BE COPIED TO THE DOCUMENT CONTROL PERSONNEL (DCP). The email may be blind copied at the Project Manager's request.
 - 1. After receiving a copied email that is a request for information, the DCP will enter the request in the Document Control System for tracking.
 - 2. The Project Manager is still responsible for copying and filing the email.
 - Once an email is printed and filed, it can be deleted from electronic storage. Electronic retention of email communications is not allowed systems can be periodically reviewed during the regularly scheduled review.
 - **D.** Faxes or Letters
 - 1. Written correspondence created by ANY staff member to a client can be copied and filed into the client's folder.
 - 2. If an electronic copy of the correspondence is retained, it can be saved into the appropriate client folder on the server.
 - 3. If the correspondence is sent using a form of mail that creates a tracking record, the tracking slip can be filed in the client's folder.
 - 4. Support Staff notifies Project Manager that task is complete.

- E. Verbal Communication
 - The staff member at the direction of the Project Manager (support, project manager, or principal) having the verbal exchange with the client can document pertinent information from the conversation on a blue Contact Sheet. If it is determined that a new Client Contact exists, Project Manager will notify CPC by indicating same in area provided on Contact Sheet.
 - 2. The Contact Sheet is then given to the CPC by the Project Manager for inclusion into the Client Database, Conflict Tracking Database, and Outlook Address List. Contact sheets may be accumulated by the Project Manager; however, they must be delivered to the CPC frequently.
 - 3. Blue Contact Sheet is placed in client binder by CPC.
- VI. CPC prints new Contact Information Summary (Exhibit 7.17) after each update and places it in the front of the client's Administrative binder.
- VII. Requests for information are given to DCP for entry into Document Control System.
 - A. Support Staff mails original request to client.
 - 1. Project Manager may send request for information directly to client.
 - **2.** Project Manager can copy or blind copy ALL Email Information Requests to DCP.
 - B. DCP can file copy of Information Request in appropriate client binder.
- VIII. Principal, Project Manager, CPC, and DCP review weekly (during the Staff Meeting) the status of the assignment, including any new target dates.

Report Setup

Note: All client/prospect information is to be stored in the appropriate folder on the server. Local computer hard drives are not available. Project Manager may not copy previous reports. If Project Manager requires a template from a previous report to use on the current client, Project Manager can submit a request to the CPC for template creation by completing the New Client Report Request form.

- I. Project Manager can request Report framework from CPC by completing a New Client Report Request (Exhibit 7.18).
 - **A.** If a standard template is requested, the finished template is due in four hours.
 - B. If a new template (from previous report) is requested, the finished template is due in the amount of time specified by Project Manager (typically 1–2 days). Once a new template is created, a copy of that new template can be maintained for use in the future. Future requests for that same template would be considered standard template requests.
- **II.** CPC creates new Report Framework in Client folder in computer from Report Template.
 - **A.** This report framework includes information obtained from the Engagement Letter, such as Company name(s) and Date(s) of value.
 - **B.** If known, CPC includes general and economic industry information in Appendices of report framework.
- III. CPC carefully edits and proofs Report template using Word Processing Checklist (Exhibit 7.19).

- IV. CPC initials and dates Initial Report Format task on Internal Report Sign-off Sheet.
- V. Report is delivered to Project Manager by CPC.

Report to Project Manager

Note: All client/prospect information is to be stored in the appropriate folder on the server. Local computer hard drives are not available. Project Manager will not copy from previous reports. If Project Manager would like to use information from a previous report, Project Manager will print the appropriate section from the previous report's PDF file and submit to CPC with clear handwritten notes. CPC will incorporate the information into the appropriate section of the client's report and return both original and notes to Project Manager for review.

- I. Project Manager conducts analysis.
- II. Principal, Project Manager, and CPC review weekly (during the Management Meeting) the status of the assignment, including any new target dates.
- III. Project Manager and Principal track workflow via SSVS VS Section 100 Compliance Checklist—Valuation Engagement (see Chapter 8, Checklist 8.38). As each milestone is completed, Project Manager and Principal initial and date the checklist.
- IV. Project Manager completes Report with supporting Exhibits, consulting with Principal as needed.

Note: From this point on, unless otherwise indicated, "Report" will refer to the complete hard copy of the report, including exhibits and appendices.

In order to eliminate the possibility of Project Managers and reviewers editing multiple copies of the same report, hard-copy editing can take place from this point on. The CPC will be responsible for maintaining the status of the report during the Edit and Review Process. The following steps are necessary to ensure that the Edit and Review Process is properly sequenced.

- V. Project Manager gives Report and Internal Report Sign-off Sheet to CPC for hard-copy editing process. Once this process is begun, Project Manager may no longer make changes to the electronic report files or exhibits.
 - A. CPC locks electronic files so they cannot be changed.
 - **B.** If Project Manager needs to make further changes to electronic report, Project Manager will notify CPC.
 - 1. CPC will unlock electronic files for the duration of the editing.
 - 2. After being notified by the Project Manager that said editing is complete, CPC will relock file.
- VI. CPC prints Report.
- VII. Project Manager completes SSVS VS Section 100 Compliance Checklist—Detailed Report (Valuation Engagement) (see Chapter 8, Checklist 8.39), editing hard-copy report as necessary.
 - A. Project Manager submits changes and edits to CPC.
 - B. CPC makes changes and edits as indicated by Project Manager.
 - C. CPC reprints Report.
 - D. Edited Report and clean Report are returned to Project Manager by CPC.
 - E. Project Manager reviews changes and edits for accuracy and completion.
 - F. In the event that additional edits are necessary, Project Manager will submit changes and edits to CPC and continue with step VII. A. above.

- VIII. Once all changes and edits are completed, Project Manager initials and dates Internal Report Sign-off Sheet for SSVS VS Section 100 Compliance Checklist—Valuation Engagement.
 - IX. Project Manager returns Report to CPC.

Report to Final Review

Note: All client/prospect information is to be stored in the appropriate folder on the server. Local computer hard drives are not available. CPC is responsible for monitoring report throughout the review process.

- I. Before Final Review, CPC performs the following tasks:
 - A. Checks format and spelling of text and exhibits of electronic Report.
 - B. Assigns unique report number (if final report).
 - C. Prints clean Report (if necessary).
 - **D.** Prints Cover Page for Report (Exhibit 7.20) using template on plain paper with assigned report number in footer.
- II. CPC delivers Report to Final Reviewer.
- III. Final Reviewer checks hard-copy Report for elements listed on Final Review Checklist (Exhibit 7.21), including:
 - A. Number footing
 - B. Totals from exhibits agree with report text
 - C. Grammar and spelling accuracy
 - D. Formatting and Word Processing Checklist items
 - E. Readability and flow
- IV. If analytical changes are required, Final Reviewer meets with Project Manager to review.
- V. Final Reviewer submits changes and edits to CPC.
 - A. CPC completes changes and edits, including Exhibits and Appendices.
 - **B.** CPC returns report to Final Reviewer.
 - C. Final Reviewer reviews report.
 - D. In the event that additional changes and/or edits are deemed necessary by Final Reviewer, Final Reviewer will submit changes to CPC. The process will continue with step V. A. above.
- VI. Final Reviewer initials and dates Internal Report Sign-off Sheet for Final Review.
- VII. Report is delivered to Principal for Review by CPC.

Report to Principals

- I. Principal tracks workflow via SSVS VS Section 100 Compliance Checklist—Valuation Engagement (see Chapter 8, Checklist 8.38). As each milestone is completed, Principal initials and dates the checklist.
- II. Principal verifies assumptions in hard-copy Report with supporting documents in Client binders.
- III. Principal reviews assumptions in hard-copy Report to ensure compliance with appropriate standards.

- IV. Principal edits and proofs hard-copy Report.
 - A. If corrections need to be made:
 - 1. Principal meets with Project Manager.
 - 2. Project Manager revises Exhibits and Report to ensure accuracy.
 - **3.** Changes on hard-copy Report are conveyed to CPC by Principal or Project Manager.
 - 4. CPC makes changes and edits.
 - 5. Project Manager or Principal verifies that edits and changes are correct.
 - a. In the event that additional edits and/or changes are necessary, Project Manager or Principal will convey said changes to CPC. The process will continue with step IV above.
 - 6. Project Manager or Principal returns report to CPC.
 - 7. Report is sent back to Final Review (see Report to Final Review).
 - **B.** If Report is accurate:
 - Principal initials and dates Internal Report Sign-off Sheet as Approved by Principal.
- V. Report is delivered to CPC by Principal or Project Manager.
- VI. CPC delivers report to alternate Principal for Cold Review, if applicable or requested.

Cold (Concept) Review

Note: All client/prospect information is to be stored in the appropriate folder on the server. Local computer hard drives are not available. All references made to Principal in the following section refer to the alternate Principal listed above.

- **I.** Principal reviews assumptions in hard-copy Report to ensure compliance with appropriate standards.
- **II.** Principal reviews:
 - **A.** Text flow
 - B. Methodologies
 - C. Discounts
 - D. Conclusions
 - E. Other subjective areas of analysis or assumptions
- III. Principal edits and proofs hard-copy Report.
 - **A.** If corrections need to be made:
 - 1. Principal meets with Project Manager.
 - 2. Project Manager revises Exhibits and Report to ensure accuracy.
 - Changes on hard-copy Report are conveyed to CPC by Cold Reviewer or Project Manager.
 - 4. CPC makes changes and edits.
 - Project Manager or Cold Reviewer verifies that edits and changes are correct.
 - **a.** In the event that additional edits and/or changes are necessary, Project Manager or Cold Reviewer will submit said changes to CPC. The process will continue with Step 4 above.
 - 6. Project Manager or Cold Reviewer returns report to CPC.
 - 7. Report is sent back to Final Review (see Report to Final Review).

- **B.** If Report is accurate:
 - 1. Principal initials and dates Internal Report Sign-off Sheet as Cold Review—Principal.
- IV. Report is delivered to CPC by Principal or Project Manager.

Issue Report to Client¹

Note: All client/prospect information is to be stored in the appropriate folder on the server. Local computer hard drives are not available.

- **I.** CPC reviews Internal Report Sign-off Sheet for completion. Each item is initialed and dated prior to issuance of Report.
- II. If items on Internal Report Sign-off Sheet are not initialed and dated:
 - A. CPC verbally notifies Principal and Project Manager.
 - **B.** Report is returned to Project Manager or Principal for completion of Sign-off Sheet item(s).
- III. If all items on Internal Report Sign-off Sheet are initialed and dated:
 - A. CPC finalizes Internal Report Checklist, including:
 - 1. Names to whom report was (is to be) sent (individuals, entities, corporations)
 - 2. Copy of Transmittal Letter
- IV. CPC creates Report Cover Letter from template (Exhibit 7.22).
- V. If a Preliminary written report is to be issued to the client or attorney:
 - A. CPC prints report with Draft.
 - B. CPC sends copy of Draft report to client and confirms receipt.
 - C. CPC retains copy of Draft report in client's electronic folder.
 - **D.** If Draft report is returned:
 - 1. Report is sent back to Project Manager (see Report to Project Manager).
- VI. If a Final report is to be issued to the client or attorney:
 - **A.** CPC prints electronic copy of report for client as indicated on Internal Report Checklist.
 - **B.** CPC sends copy of report to client and confirms receipt.
 - C. CPC retains one copy of bound report in client's binder and in client's electronic file.
 - **D.** CPC stores one copy of report in the appropriate Report Collection drawer.

Early Termination of Assignment

Note: Client/prospect information is to be stored in the appropriate folder on the server. Local computer hard drives are not available. Regardless of reason for early termination of assignment, no work product is released to the client. All work product is proprietary to OUR COMPANY NAME. Only that information provided by the client is returned to the client.

- I. Termination by client
 - **A.** Client indicates end of assignment via letter or verbal notification (from attorney) that case has settled.

¹These procedures depend on each firm's Draft and Report Retention policies, and, if appropriate and applicable, jurisdictional rules.

- B. Principal notifies staff to stop all work on assignment and authorizes final bill.
- C. Accounts Payable prepares final bill.
 - 1. If final bill exceeds retainer received, invoice is created for client.
 - 2. If retainer exceeds final bill, Accounts Payable submits a request to Administration for refund check to be sent to client.
- **D.** Accounts Payable sends final bill/refund check to responsible party.
- E. Principal reviews client file. As appropriate:
 - 1. Client's documents are returned to sender.
 - 2. Client files (work product) are archived.
- II. Termination by COMPANY
 - **A.** During management meeting, Principal indicates client is to be notified of termination.
 - B. Principal notifies staff to stop all work on assignment and authorizes final bill.
 - C. Accounts Receivable prepares final bill.
 - 1. If final bill exceeds retainer received, invoice is created for client.
 - 2. If retainer exceeds final bill, Accounts Receivable submits a request to Administration for refund check to be sent to client.
 - **D.** CPC sends Early Termination Letter (Exhibit 7.23) to client with final bill/refund check.
 - **E.** Principal will review file and authorize collection or write-off of any outstanding balance.
 - F. If at any time Principal determines assignment is to continue, Principal:
 - 1. Ensures account is current.
 - 2. Assesses need for a revised R&E Letter and additional retainer.

End of Assignment/Archive Client

- I. If litigation client, maintain client's active status.
- II. CPC prints one copy of Report and Exhibits to PDF format.
 - A. CPC places PDF report and exhibits in server file.
- III. CPC moves client folder on server to INACTIVE CLIENTS folder.
 - A. Use same naming structure as that used in the CLIENTS folder.
- **IV.** Inactive Client files will be maintained in the Inactive Clients folder for one quarter.
 - **A.** During the third week of the quarter, Inactive Client folders from the previous quarter will be copied onto a CD-ROM by the CPC (two copies).
 - B. CPC deletes the Inactive Client files from the computer.
- V. CPC stores one CD-ROM in Client Archive file.
- VI. Administration stores one CD-ROM in off-site storage location.
- VII. CPC archives hard-copy documents.

EXHIBIT 7.1 Contact Informati	on Sheet
Client or Contact:	
Date of Contact:	
In Reference To:	
Contacted By:	
If new contact, comp	lete this information and give sheet to Support Staff
Name:	Title:
Company:	
Address:	
City, State, Zip:	
Telephone:	Fax:
Email:	
Additional Comments:	
	E AND INITIAL WHERE INDICATED) / Response to Principal:/

Purpose:		
Consulting Corporate Plan	ning Financial Reporting Tax	Lit M&A Int'l
Type:		
Public Company	Private Company	
ASC 805	ESOP	Shareholder Dispute
Arbitration/Arbitrator	Estate Tax	S Corp Election
Broker Services	Financial Reporting Other	Stock Purchase
Business Valuation	Gift Tax	Transfer Pricing
Buy/Sell	Intellectual Property	SIC/Market
Charity Contribution	International	Industry
Commercial Damages	IRS	
Consulting	Lost Profits	Entered:
Corporate Planning	Merger/Acquisition	PCL #
Derivatives	Offering Memo	C/I
Divorce	Other	Outlook
Eminent Domain	Purchase Price Analysis	Mailing List
ESBP	Rebuttal	Archive

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EXHIBIT 7.2 Relationship Review Checklist

Instructions:

- 1. Email relationship information to all offices.
- 2. Follow up with phone call those who do not respond to email. Note: Only one response per office is required.
- 3. Indicate if relationship exists, and if so, reason for relationship.
- 4. Attach this form to Contact Information Sheet.

Office Contact Information:

Office Location	Contact Name	Resp	onse	Relati	onship		
		Email	Phone	Yes	No		
Phone #	Email Address						
Office Location	Contact Name	Resp	onse	Relati	onship		
		Email	Email Phone		No		
Phone #	Email Address						
Office Location	Contact Name	Resp	Response		Relationship		
		Email	Phone	Yes	No		
Phone #	Email Address						
Office Location	Contact Name	Resr	oonse	Relati	onship		
211100 200001011		Email	Phone	Yes	No		
Phone #	Email Address						

Reason for Relationship:		

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EXHIBIT 7.3 Engagement Declination Letter

Date

Name

Firm

Address

City, State ZIP

Re: Matter

Dear Name:

I am returning the information you sent in connection with the above matter. Regrettably, we have a business conflict that precludes our involvement.

Sincerely,

PRINCIPAL TITLE

Enclosures

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EXHIBIT 7.4	Lead and Project Information Sheet

Items in Bold are required	
LEAD	Lead Date:
Contact Name:	F/U Date:
Firm/Title:	F/U Date:
Lead Name:	
Address:	Bus. Unit:
	Principal:
Phone:	Analyst:
Email:	DOV:
Notes:	Entered:
(attach call log)	PCL #
	C/I
	Outlook
	Mailing List
	Archive
	Fin. Reporting Tax Lit M&A Int'l ME:
ENGAGEMENT LETTER ADDRESSEE	
Name/Title:	EL SENT:
Firm:	EL F/U Sent:
Address:	EL Received:
	EL Signed:
Phone:	Retainer Amt:
Email	Retainer Rcvd:
BILLING CONTACT (IF DIFFERENT F	FROM EL ADDRESSEE):
	BILLING:
Name/Title:	Actual Fixed
Firm:	
Address:	Retainer: \$
	Draft: \$
Phone:	Final: \$
Email	

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EXHIBIT 7.5 Marketing Letter

Date

Contact Company Address1 Address2 City, State ZIP

Dear CONTACT:

I enjoyed speaking with you [TODAY]. I trust you received my email and have reviewed our website. Enclosed as you requested is our marketing packet, including:

- My Curriculum Vitae
- Firm brochures describing our services
- · Information on our recent publications

Briefly, [OURCOMPANY] is a business valuation and consulting firm that in [twenty] years has provided valuation services for hundreds of clients. Our corporate clients have come in all sizes from small companies to large, closely held and public companies exceeding one billion dollars in revenues. Our firm has been retained to provide independent valuation opinions for many purposes. Among them are:

- 1. Appraisals for financial reporting, which include the valuation of intangible assets such as customer lists, technology, and depositor relationships.
- 2. Intellectual property appraisals, including trademarks, copyrights, and patents.
- 3. Litigation support testimony, including dissenting minority shareholder cases, corporate disputes, and marital dissolution.
- 4. Estate and other tax-related matters, including gifting, family limited partnerships, and other tax purposes.
- 5. Mergers, acquisitions, and other forms of corporate sales and reorganizations.

Our fees are based on our standard staff rates, which are \$300 to \$400 per hour for principals, \$150 to \$300 per hour for technical analysts, and \$75 to \$150 per hour for paraprofessionals. The fee usually averages around \$200 per hour.

Please call if you have any questions. I look forward to receiving the requested information and speaking with you further.

Sincerely,

PRINCIPAL, DESIGNATIONS TITLE

Enclosures

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EXHIBIT 7.6 Lead Schedule

Company	Contact	Purpose	Principal	Initial Contact	Marketing Sent	Follow-up Sent
Company	Contact Name	Shareholder Dispute	Initial	01/01/X0	1/15/X0	
Company	Contact Name	Divorce	Initial	12/13/X9	1/01/X0	01/15/X0
Company	Contact Name	Estate Tax	Initial	01/15/X0	1/25/X0	
Company	Contact Name	Business Val.	Initial	12/01/X9	12/18/X9	1/10/X0
Company	Contact Name	Litigation	Initial	01/01/X0	1/15/X0	
Company	Contact Name	Fin. Reporting	Initial	01/01/X0	1/15/X0	01/31/X0

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EXHIBIT 7.7 Lead Follow-up Letter

Date

Client Company Address1 Address2 City, State ZIP

RE:

Dear CLIENT,

On DATE, we spoke about the possible need for our services in connection with the above-referenced matter. I realize these matters take time to develop and hope your strategy is proceeding smoothly. Please keep me informed if you think our services will be needed and feel free to call if you have any questions.

I appreciate your consideration and hope to hear from you soon.

Sincerely,

PRINCIPAL, DESIGNATIONS TITLE

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EXHIBIT 7.8 Representation and Engagement Letter Cover Letter

Date

Name Company Address City, State ZIP

Re:

Dear CONTACT;

It was a pleasure talking with you DAY and I look forward to working with you. Enclosed as you requested are:

- Representation and Engagement Letter
- Retainer invoice for \$XX,000

If you decide to retain me, please read and sign both copies of the Representation and Engagement Letter, returning one copy to OURCOMPANYNAME. Additionally, please send as soon as possible the following items so we can begin our analysis:

- Federal and State Corporate Income Tax Returns for the last five years
- Financial (audited or reviewed) statements for the last five years
- Corporate Charter, Articles of Incorporation, and/or Bylaws

As the assignment progresses, additional information will be necessary. We will send a tailored Valuation Information Request (VIR) for those items at that time.

If you have any questions, please give me a call.

Sincerely,

PRINCIPAL TITLE

Enclosures

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EXHIBIT 7.9 Engagement Letter Schedule

Company			Purpose				Retainer
Company			Shareholder Dispute			\$10,000	
Contact		•	Contact	Phone		Co	mments
Contact Name			123-45	56-7890 Court App		t App	ointed, Joint Hire
Principal	Init	ial Contact		R & E Letter Sent		F	Follow-up Sent
Initials		1/01/X0		1/25/X0			02/15/X0

Company			Purpose	Retainer	
Company			Business Valuati	\$10,000	
Contact		Contact Phone Com			omments
Contact Name		123-4	56-7890	Multij	ole companies
Principal	Init	tial Contact	R & E Letter	Sent	Follow-up Sent
Initials		1/15/X0	2/01/X0		

Company		Purpose	Retainer		
Company		Financial Report	\$5,000		
Contact		Contac	Contact Phone		omments
Contact Name		123-4	123-456-7890		ment Testing
Principal	Init	tial Contact	R & E Letter	Sent	Follow-up Sent
Initials		12/22/X9	1/10/X0		1/28/X0

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EXHIBIT 7.10 Representation and Engagement Letter Follow-up Letter

Date

Client

Company

Address1

Address2

City, State ZIP

RE:

Dear CLIENT:

On DATE we sent you a Representation and Engagement Letter in connection with the above matter. As we have not received the signed Representation and Engagement Letter, we need to know if the case is still active and if our services will be needed.

If we can be of any assistance or if you have any questions, please feel free to call.

Sincerely,

PRINCIPAL TITLE

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EXHIBIT 7.1	New Client Set-up Checklist
PROJECT	ì
Initial eacl	h step when complete:
	INFORMATION TRACKING (Add/Update): Time and Billing software Client #: Project #: Project Tracking database Tracking #: Relationship database Mailing list Outlook Copier code
	ELECTRONIC FILE: Set up folders in F:/CLIENT/ACTIVE - Analysis - Billing & Engagement - Correspondence - Report - Data from Client Move prior correspondence to appropriate folder
	BINDER TO ANALYST (Includes the following): Copy of signed Representation and Engagement Letter Information received from Client Checklists Internal Report Signoff sheet Math Review checklist Developmental Review checklist Prospective Financial Information checklist Report Compliance/USPAP checklist Management Interview—Financial Management Interview—Operations Report Request Exhibit Request
	ENGAGEMENT FILE/FRONT OFFICE (Includes the following): Original Representation and Engagement Letter Billing folder New Project checklist

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EXHIBIT 7.12 Management Schedule Report

Client/Project	Next Critical Date	Traced	Math	Development (Analyst)	PFI	Development (Principal)	Report Compliance	Draft Review	Final Review	Critical Action
Project	01/30/X0									
Project	02/02/X0									
Project	02/02/X0	x	x							
Project	02/02/X0									
Project	02/02/X0	x	x							
Project	02/02/X0									
Project		x	x	X	x	x	X	X		
Project		X	X	X	X	X	X	X		Need EL Amend

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EXHIBIT 7.13 Document Control System Report

Document Inventory for: zzzzsample Date of Document Description Year Type ADMINISTRATIVE ENGAGEMENT LETTER 6/1/20X0 INFORMATION REQUEST FINANCIAL INFORMATION 20X0 FINANCIAL PROJECTIONS INTERIM STATEMENTS 20X9 CURRENT AND PRIOR YEAR 20X9 TAX RETURN OPERATIONS FRANCHISE AGREEMENTS PERMITS LAND USE PERMIT 20X0 **FACILITIES** FIXED ASSET APPRAISALS PERSONNEL/BENEFITS PAYROLL/SALARIES PAST TWO YEARS STOCK STOCK LEDGER CURRENT LEGAL **AFFIDAVITS** DEPOSITIONS NOTICES, SUBPOENAS, PETITIONS, AFFIDAVITS OPPOSITION EXPERTS NONRELEVANT INFORMATION

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EXHIBIT 7.14 New Clie	nt Exhibit Request	
		lyst request client files be set up by es must be submitted on this form.
This form is to be given	n directly to Support Staff. Do no	et place on desk or in tray.
Name of Client:		
Note: Typical turnarou	and time for standard templates i	s 2–4 hours.
STANDARD TEMPLATES	MODIFICATIONS TO TEMPLATE	
1 Year Analysis	Black-Scholes	QM Discount
2 Year Analysis	Blockage Discount	RMA
3 Year Analysis	Discount Rate Summary	Software
4 Year Analysis	Double Black-Scholes	Tax
5 Year Analysis	Growth Rate	Voting Premium Analysis
	Lifing	Debt-free Working Capital
CPR Only	Options	Working Capital
NEW TEMPLATE (No	ete: Turnaround time for new tem	nplates is 1–2 days)
Please create a ne	w template from previous client	
Requested by:		
	Needed b	y:
SUPPORT STAFF USE	(DATE AND INITIAL WHERE	INDICATED)
Date/Time Received: _	/ Complet	
Analyst Notified:	/	

Retain this form on file until Final Report has been issued to client.

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EXHIB	IT 7.15	i M	ath Review Checklist	
			ge	
Princ	ipai in	Cna	rge	
Exhil	oits) ha	ave b	Math Review Checklist is to ensure/document that financial input (all een independently traced, recomputed/verified. A traced, paper copy should e front of the binder.	
			STANDARD TICK MARKS: ✓ Checked/traced to source document (including prior report) ¢ Checked for internal consistency within report ∨ Verified math (multiplication/division correct) Ø Totaled/footed (addition/subtraction correct) e Name/title/dates agree to Eng. Letter (SALC; Representations)	
Tracer	Date			
Seco	nd Pri	incipa	al Consultation/Review	
		1.	Cold review completed by independent principal (can occur any time during the engagement)	
Revi	ew 1:	Finaı	ncial Statement Analysis	
		2.		
		3.	Verify internal consistency of numbers (Depreciation Expense on Cash Flow equals Operating Expense Detail) (Exhibits 1–10)	
		4.	Trace RMA industry data to source document	
		5.	Manually recompute randomly selected ratios, including growth rates (Exhibits 1–10)	
		6.	Manually foot/total all columns; check for rounding errors	
		7.	Verify internal consistency of ratios (e.g., ROE on Exhibit 6 equals ROE on Exhibit 10)	
Revi	ew 2A	A: Ass	et-based Approach (Econ Balance Sheet)	
		8.	Trace interim balances to source documents	
		9.	Recompute randomly selected ratios; foot/total all columns	
		10.	Trace asset value adjustments to appraisal/source documents in file; determine if tax liability adjustment from gain on sale is necessary	
		11.	Trace information to Summary Valuation Exhibit	
		12.	Trace relevant amount(s) to narrative section(s) of engagement report	

Review 2	B: Ma	rket Approach - Guideline Public Companies Method
	13.	Verify accuracy of input (trace financial spreads to source)
	14.	Trace information to Summary Valuation Exhibit
	15.	Trace multiples to report; review report explanations to be sure they are supported by the work in the Exhibits
	16.	Trace Appendix Guideline Public Company disclosures to source documents
Review 2	C: Ma	rket Approach – External Transactions Method
	17.	Trace market comps to the source documents
	18.	Recompute financial ratios and final pricing multiples; foot/total all columns
	19.	Trace information to Summary Valuation Exhibit
	20.	Trace multiples to report; review report explanations to be sure they are supported by the work in the Exhibits
Review 2	D: Inc	ome Approach
	21.	Trace rate buildup components to source documents
	22.	Trace and recompute ongoing earnings base and/or projections
	23.	Trace and recompute all WACC components (debt/equity rate components)
	24.	Trace info to Summary Schedule for conclusion of value
Review 2	E: Allo	ocation of Intangible Assets
	25.	Complete Intangible Asset Checklist
Review 3	: Con	clusion Issues
	26.	Recompute final valuation amount; agree to exhibit; first and last page of report; report valuation/calculation summary page, etc.
	27.	Agree weighting of different valuation approaches from Valuation Summary Exhibit to written report

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EXHIBIT 7.16 Internal	Report	Sign-	Off Sheet
------------------------------	--------	-------	-----------

	Dian	Final
CLIENT:		
EL RECEIVED: RET.	AINER RECEIVED:	
	ORT LOCATION:	
Initial and date as each step is completed		
	DRAFT	FINAL
Initial Report Format		
Math Review		
Developmental Review Checklist (Analyst)		
Developmental Review Checklist (Principal)		
Prospective Financial Information Checklist		
Report Compliance Checklist		
Cold Review		
Verify Billing Current (Fixed or Actual)		
Document Inventory Review		
Approved by Principal for Final Edit		
Final Edit		
Approved by Principal to Client		
Bound Copy Review		
Report Signed		
Billing to Client (if applicable)		
Report Sent to Client		
Update Databases		
No. of Copies or Electronic (pdf)		
Report Tracking No.		
Copies Sent To:		

 $\ \ \,$ $\ \,$ $\ \ \,$ $\ \,$ $\ \ \,$ $\ \ \,$ $\ \,$ $\ \ \,$

EXHIBIT 7.17 Contact Information Summary

PLAINTIFF	DEFENDANT
Atty: Company Address Tel/Email	Atty: Company Address Tel/Email
Plaintiff: Company Address Tel/Email	Address
Experts:	Experts:
Experts: Company Address Tel/Email	Experts: Company Address Tel/Email
Other Contacts: Company Address Tel/Email Other Contacts:	1 1 1
CompanyAddressTel/Email	Company Address Tel/Email

IF YOU HAVE UPDATED INFORMATION, COMPLETE A CONTACT SHEET AND PLACE IN TOP TRAY OF CPC

Which side are we working for, or for which side were we contacted? P D

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	that the Analyst request client files be set up by n templates must be submitted on this form.
Name of Client:	
Blockage Discount Multicompan Calculation Multi-Dates Fractional Interest Offering Men FRCP 26 Patent Restricted Appraisal Practice	und time for standard templates is 2–4 hours) ies ASC 805 Business Combination Impairment Testing norandum Short Standard Stock Option falue Letter Supplemental Analysis Letter
Asset Valuation	Intangibles Option Valuation Practice Goodwill Qualification Language S Corp Considerations
Economic Outlook Year, Qtr Short Long Graphs	 Minority Interest/Lack of Control Lack of Marketability/Studies Voting Premium S Corp Issues
NEW TEMPLATE (Note: Turnaround time — Please create a new template from previ	
	Date:

Needed by:

SUPPORT STAFF USE (DATE AND INITIAL WHERE INDICATED)
Date/Time Received:/ Completed:/
Analyst Notified:/

Retain this form on file until Final Report has been issued to client.

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EXHIBIT 7	7.19 W	ord Processing Checklist
CLIENT	Γ	
WORD	PROCES	SSOR
DATE _		
DATE _ ✓	N/A	ITEM
		Copy appropriate template as indicated on New Client Report Request Form and save in Client Report folder
	_	Copy appropriate template as indicated on New Client Exhibit Request Form and save in Client Analysis folder
		Copy Cover Page for Report template and save in Client Report folder
		Insert in Cover Page (from Representation and Engagement Letter unless otherwise stated)
		Client Name—Spelled and punctuated exactly as shown on Company Articles of Incorporation, if available, or other Company Document (see Client at top of this checklist)
		Date of Valuation:
		Purpose of Valuation:
		Assigned report tracking number.
		Insert in Report (from Representation and Engagement Letter unless
		otherwise stated)
_		— Client Name—Spelled and punctuated exactly as shown on Company Articles of Incorporation, if available, or other Company Document (see Client at top of this checklist)
		Client Name consistent throughout report
		Name and Title—Spelled and punctuated exactly as shown on R&E:
		Date of Valuation—Consistent throughout report:
		Purpose of Valuation—Consistent with EL:
		Name and Title of Principal
		Update Table of Contents:
		Text Titles and Page Numbers
		Exhibits—Numbers and Names
		Appendices—Letters and Titles
		Insert in Appraisal Summary of Report:
		Standard of Value—correct:
		Basis of Value—correct:
		Premise of Value—correct:
_	_	Insert Appendix A—Statement of Contingent and Limiting Conditions—Same as Client R&E
		Insert Appendix B—Representations
		Single or Plural
		Company Name
		Assisted by name and title
		Compliance statement (single or plural)

✓	N/A	ITEM
		Insert Other Appendices as indicated on New Client Report Request forms
		Economic Outlook Period:
		Industry Review
		Discount for Lack of Marketability
		Discount for Control
		Control Premium
		Voting Premium
		Other:
		Other:
		Other:
		Include Industry Section with source information
	_	Text agrees with Exhibit Name and Number
	_	Text agrees with SIC/NAICS Number in Exhibits:
	_	SIC/NAICS Description for this Client is the same in text and exhibit
		Agree Value Indications, Text to Exhibits:
		Asset Approach
		Market Approach
		Income Approach
		Value Conclusion
	_	Exhibits:
		Verbiage for every footnote
		— Percentage exhibits verbiage agrees with dollar exhibits verbiage line by line
		— Company, Partnership, or Member terminology is consistent throughout
		Source Dates at bottom agree with Top Dates
		Correct Exhibit numbers on Summary Exhibit
	_	Appendix A—Statement of Contingent and Limiting Conditions—Same as Client R&E
		Appendix B—Representations
		Single or Plural
		Company Name
		Assisted by name and title
		Compliance statement (single or plural)
		Appendices for, if necessary:
		Economic Outlook Period:
		Industry Review
		Discount for Lack of Marketability
		Discount for Control
		Control Premium
		Voting Premium
		Other

\checkmark	N/A	ITEM
		Appendix Conclusion agrees with Exhibit in
		Discount for Lack of Marketability:%
		Discount for Control:%
		Control Premium:%
		Voting Premium:%
		Other
		Read report for content and flow of information
		Discuss changes with Project Manager
		Review requested changes
		Internal Report Sign-Off Form
		Initial at Final Approval
		Update Exhibits:
		Insert additional Exhibit pages as requested on New Client Exhibit Request
		— Client Name—Spelled and punctuated exactly as shown on Company Articles of Incorporation, if available, or other Company Document (see Client at top of this checklist)
		Date of Valuation:
		— Percentage exhibits verbiage agrees with dollar exhibits verbiage line by line
		Company, Partnership, or Member terminology is consistent throughout
		Check Margins
		Review Spacing
		Consecutive Page Numbers (if Litigation, number Exhibits)
		Consistent Style and Font (\$, %, Underline)
		Spell Check
		Internal Report Sign-Off Form
		Initial at Initial Format

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EXHIBIT 7.20 Cover Page for Report

FAIR MARKET VALUE
OF
COMPANY NAME
AS OF
VALUATION DATE

T-XXX-09-1###

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EXHIBIT 7	7.21 Fi	nal Review Checklist
OI IEN II	-	
CLIENT		
REVIEV	VER	
REVIEV	V DATE_	
REPOR'	Т ТҮРЕ	
✓	N/A	ITEM
		Initials on Internal Report Sign-Off Form
		Math Review
		Developmental Review, Analyst #1
		Developmental Review, Principal, if necessary
		Report Compliance
		Approved by Principal to Final Edit
		Initials on Math Review Checklist
		Traced to client documents and RMA
		RMA data have transferred correctly to Exhibits
		Check all formulas; add all columns
		Correct amounts (dollars and percents) and dates flow from Exhibit to Exhibit
_	_	Engagement Letter
		— Client Name—Spelled and punctuated exactly as shown on Company Articles of Incorporation, if available, or other Company Document (see Client at top of this checklist)
		Client Name consistent throughout report and exhibits
		Name and Title—Spelled and punctuated exactly as shown on R&E:
		If signed R&E Letter shows a different name and title, an addendum to the R&E needs to be sent.
		Date of Valuation—Consistent throughout report and exhibits:
		If signed R&E shows a different date, an addendum to the R&E needs to be sent.
		Purpose of Valuation—Consistent with EL:
		If signed R&E shows a different purpose, an addendum to the R&E needs to be sent.
_		Check for accuracy the signature(s) and title at bottom of Report Letter:
		Value Conclusion—Same in:
		Report Letter (1st or 2nd page)
		Appraisal Summary
		Valuation Summary of Text
		Summary Exhibit
		Table of Contents:
		Text Titles and Page Numbers
		Exhibits—Numbers and Names
		Appendices—Letters and Titles

\checkmark	N/A	ITEM
		Appraisal Summary
		Standard of Value—correct:
		Basis of Value—correct:
		Premise of Value—correct:
		For Text, Exhibits, and Appendices:
		Check Margins
		Review Spacing
		Consecutive Page Numbers (if Litigation, number Exhibits)
		Consistent Style and Font (\$, %, Underline)
		Spell Check
		Include Industry Section with source information
		Text agrees with Exhibit Name and Number
		Text agrees with SIC/NAICS Number in Exhibits:
_		SIC/NAICS Description for this Client is the same in text and exhibit
_		Agree Value Indications, Text to Exhibits:
		Asset Approach
		Asset Approach
		Income Approach
		Value Conclusion
		Exhibits:
		Verbiage for every footnote
		Percentage exhibits verbiage agrees with dollar exhibits
		verbiage line by line
		Company, Partnership, or Member terminology is consistent throughout
		Source Dates at bottom agree with Top Dates
		Correct Exhibit Numbers on Summary Exhibit
		Appendix A—Statement of Contingent and Limiting Conditions—Same as
		Client R&E
		Appendix B—Representations
		Single or Plural
		Company Name
		Assisted by name and title
		Compliance statement (single or plural)
		Appendices for, if necessary:
		Economic Outlook Period:
		Industry Review
		Discount for Lack of Marketability
		Discount for Control
		Control Premium
		Voting Premium
		Other
		Appendix Conclusion agrees with Exhibit in
		Discount for Lack of Marketability:%
		Discount for Control:%
		Control Premium:%
		Voting Premium:%
		Other

✓	N/A	ITEM
		Read report for content and flow of information
		Discuss changes with Project Manager
		Review requested changes
		Internal Report Sign-Off Form
		Initial at Final Approval

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EXHIBIT 7.22 Report Cover Letter
Date
Client Name Firm/Company Address City, State ZIP
Dear CLIENT,
Enclosed is/are a copy/copies of the draft/final valuation report of the fair market value of A copy of the report has been forwarded to NAME. Please note, in order to comply with appropriate standards and case law, draft reports will be retained by OURCOMPANYNAME in the client file.
I look forward to receiving your comments so we can finalize the report. All draft reports must be returned to this office in their entirety before the final report will be issued. If you have any questions, please call.
Sincerely,
Principal, Designations Title
Enclosure(s)

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EXHIBIT 7.23 Early Termination Letter

Date

Client Name Company Address City, State ZIP

Re: NAME OF ENGAGEMENT/CASE INFORMATION (FROM ENGAGEMENT LETTER)

Dear CLIENT:

To date, we have sent numerous billings in connection with the above matter. The only payment we have received is the retainer of \$X,XXX on DATE. Due to the sensitive nature of the assignment, I have proceeded on good faith without further payments. The balance due as of DATEDUE was \$X,XXX. To bring the billing current, enclosed is the invoice, in summary and detail, for work performed through DATEEND. The balance due is now \$X,XXX.

Pursuant to the Representation and Engagement Letter dated ENGDATE, FEE, AND BILLING, I am exercising paragraph 9, which reads:

9. OURCOMPANYNAME reserves the right to withdraw from or stop work on this engagement if fees have not been paid as agreed.

Please expedite full payment immediately so that work may resume.

Sincerely,

PRINCIPAL TITLE

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Chapter 8 presents the checklists that can be used by analysts to run a valuation process. Not all analysts use checklists. However, for those who do, these checklists should be very helpful.

- 8.1. Business Valuation or Real Estate Appraisal?
- 8.2. Key Information Requirements
- 8.3. Industry Research Form
- 8.4. IRS BV Guidelines Checklist, Internal Revenue Service, Engineering Program, Business Valuation Guidelines 4.48.4
- 8.5. Valuation Information Request (VIR) General
- 8.6. Valuation Information Request (VIR) Bank/Holding Company
- 8.7. Valuation Information Request (VIR) Eminent Domain
- 8.8. Valuation Information Request (VIR) Gas and Oil Rights
- 8.9. Valuation Information Request (VIR) High-Tech Business
- 8.10. Valuation Information Request (VIR) Professional
- 8.11. Valuation Information Request (VIR) Medical Practice
- 8.12. Valuation Information Request (VIR) Construction Industry
- 8.13. Management Interview—Operations
- 8.14. Management Interview-Financial Review
- 8.15. Management Interview—Insurance Agency
- 8.16. Management Interview—Professional Practice
- 8.17. Management Interview—Medical Practice
- 8.18. Management Interview—Construction Industry
- 8.19. Management Interview—Law Practice
- 8.20. Management Interview—Accounting Practice
- 8.21. Valuation Information Request (VIR) Copyrights
- 8.22. Valuation Information Request (VIR) Customer Relationships

- 8.23. Valuation Information Request (VIR) In-Process Research and Development
- 8.24. Valuation Information Request (VIR) Know-How
- 8.25. Valuation Information Request (VIR) Patents
- 8.26. Valuation Information Request (VIR) Software
- 8.27. Valuation Information Request (VIR) Proprietary Process/Products Technology
- 8.28. Valuation Information Request (VIR) Trademark/ Trade Name
- 8.29. Procedures for the Valuation of Intangible Assets
- 8.30. Royalty Factors
- 8.31. Management Interview—Patent Valuation
- 8.32. Management Interview—Reasonable Compensation
- 8.33. Reasonable Compensation: Additional Discussion Questions
- 8.34. Revenue Ruling 59-60: Valuation Checklist
- 8.35. Revenue Ruling 77-287: Valuation Checklist
- 8.36. Revenue Ruling 93-12: Valuation Checklist
 - 8.37. Work Program
 - 8.38. SSVS VS Section 100 Compliance Checklist— Valuation Engagement
 - 8.39. SSVS VS Section 100 Compliance Checklist— Detailed Report (Valuation Engagement)
 - 8.40. Review Checklist-Eminent Domain
- 8.41. Non-Appraiser's Guide to Reviewing Business Valuation Reports
- 8.42. Auditor Review of Valuation for Financial Reporting
- 8.43. Fair Value Measurement Checklist

CHECKLIST 8.1: BUSINESS VALUATION OR REAL ESTATE APPRAISAL?

This checklist helps determine which discipline—business valuation or real estate appraisal—is the pertinent discipline when valuing an entity.

YES	NO	Is the entity:
		A commercial, industrial, or service organization pursuing an economic activity?
		An equity interest (such as a security in a corporation or partnership interest)?
		A fractional interest, minority interest—i.e., less than 100 percent of the entity?
		Difficult to split up (perhaps because the owners do not have a direct claim on the assets)?
YES	NO	Does the entity:
		Derive its revenues from providing goods or services?
		Primarily use assets such as machinery, equipment, employee skill and talent in providing goods or services?
		Depend on assets other than or in addition to real estate to generate earnings?
		Conduct an economic activity that is more important than the location of the real estate where the economic activity is being conducted?
		Likely have a value that fluctuates with conditions in its industry (as opposed to fluctuations in the real estate market)?
YES	NO	Does the entity have:
		Intangible assets such as patents, trademarks, copyrights, franchises, licenses, customer lists, employment contracts, noncompete covenants, and goodwill that the entity uses to
\neg		generate earnings?
	۵	
		generate earnings?
_		generate earnings? Substantial assets that can be moved?
<u> </u>		generate earnings? Substantial assets that can be moved? A variety of tangible and intangible assets that interact to produce economic activity? Significant operating expenses such as marketing, advertising, research, and
_ _	0	generate earnings? Substantial assets that can be moved? A variety of tangible and intangible assets that interact to produce economic activity? Significant operating expenses such as marketing, advertising, research, and transportation?
		generate earnings? Substantial assets that can be moved? A variety of tangible and intangible assets that interact to produce economic activity? Significant operating expenses such as marketing, advertising, research, and transportation? Substantial labor expenses?

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CHECKLIST 8.2: KEY INFORMATION REQUIREMENTS

and economic factors

Financial	Market Characteristics		
☐ Historical and prospective financial information on: ☐ Turnover ☐ Contribution ☐ Marketing ☐ Manufacturing/production ☐ R&D/marketing/capital expenditure ☐ Unusual, nonrecurring events ☐ Accounting principles and methods ☐ Contingent assets/liabilities ☐ Details of acquisition of assets ☐ Licensing arrangements ☐ Serious offers received for the asset	□ Product/service awareness: □ Spontaneous □ Prompted □ Market share/position □ Consumer loyalty □ Image/esteem □ Geographical coverage □ Extension potential (products, markets, channels) □ Product history and life cycle □ Buyer purchase criteria □ Marketing mix □ Demographics		
Industry Structure	Legal		
□ Structure of industry □ Nature of competition □ Barriers to entry □ Availability of substitutes □ Bargaining leverage of buyers □ Availability of supply □ Distribution arrangements □ Major industry trends	 □ Registered or statutory rights □ Categories of goods or services □ Jurisdictions □ Pending applications □ Common law or similar rights (including assessment of legal protection) □ Duration of property rights □ Details of licensing arrangements 		
☐ Social, political, regulatory, environmental,	☐ Legal matters outstanding (e.g., infringements)		

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CHECKLIST 8.3: INDUSTRY RESEARCH FORM
Industry Name:
Industry SIC CODE: NAICS CODE:
Trade Associations in This Industry:
Key Words, Industry Terms, Jargon:
Leading Public Companies in This Industry:
Checked 10-K for industry discussion
Checked for analyst reports
Trade Publications in This Industry:
Checked periodical databases for relevant articles
Checked publications by industry analysts (First Research, Standard & Poor's, etc.)

CHECKLIST 8.4: IRS BV GUIDELINES CHECKLIST, INTERNAL REVENUE SERVICE, ENGINEERING PROGRAM, BUSINESS VALUATION GUIDELINES 4.48.4

Business Name	Subject Interest
Valuation Date	Valuation Purpose
Standard of Value	Premise of Value
Analyst (sign and date)	Manager (sign and date)
Principal (sign and date)	

Answering the following questions will help determine whether the development and reporting of a business valuation complies with IRS Business Valuation Guidelines. Preceding each section of questions is a reference to the section or page of the IRS BV Guidelines from which the question is drawn.

All "No" or "N/A" answers should be individually explained in the space provided on the last page of this checklist.

Yes No N/A

	Purpose
	1. Is the Valuator aware of the [then] new IRM 4.48.4, Engineering Program, Business Valuation Guidelines dated July 1, 2006?
	Background
	1. Is the Valuator aware that this material is the product of the Valuation Policy Council (VPC), a cross-functional committee with executive representation from LMSB, SBSE, and Appeals?
	2. Is the Valuator aware that the VPC was established in 2001 to assist IRS leadership in setting direction for valuation policy that cuts across functional lines, and in identifying process improvements to improve compliance and better utilize resources?
	Nature of Materials
	1. Is the Valuator aware that this IRM provides specific guidelines for the following:
	Developing the valuation issue?
	Resolving the issue when possible?
	Preparing reports?
	2. Is the Valuator aware that this document provides specific instructions to examiners with respect to the following:
	Planning the valuation assignment?
	Analyzing relevant information?
	Preparing workpapers?
	Reviewing a third-party valuation?
	Effect on Other Documents
	1. Is the Valuator aware that this document has no effect on other documents?

ies	No	N/A			
				Audience	
			1.	Is the Valuator aware that the intended audience for this document is all IRS employees who provide valuation services or review the valuations and appraisals prepared by others?	
Introduction 4.48.4.1					
			1.	Is the Valuator aware that the purpose of this document is to provide guidelines applicable to all IRS personnel engaged in valuation practice (hereinafter referred to as "Valuators") relating to the development, resolution, and reporting of issues involving business valuations and similar valuation issues?	
			2.	If the Valuator departed from these guidelines, is he or she able to reasonably justify that departure?	
			3.	Is the Valuator aware that this document incorporates, by reference, the ethical and conduct provisions contained in the Office of Government Ethics (OGE) Standards of Ethical Conduct, applicable to all IRS employees?	
			4.	Is the Valuator aware that valuations of assets owned and/or transferred by or between controlled taxpayers (within the meaning of Treasury Regulation section 1.482-1[i][5]) may present substantive issues that are not addressed in these guidelines?	
				Development Guidelines, 4.48.4.2	
			1.	Did the Valuator successfully complete a valuation assignment by including the following:	
				Planning?	
				Identifying critical factors?	
				Documenting specific information?	
				Analyzing the relevant information?	
				Are all relevant activities documented in the workpapers?	
			2.	Was a review appraisal the best approach to the assignment?	
				Development Guidelines, 4.48.4.2.1 Planning	
			1.	Did the Valuator adequately plan the valuation assignment?	
			2.	Did the Valuator's managers supervise the staff involved in the valuation process?	
			3.	Is the Valuator aware that quality planning is a continual process throughout the valuation assignment?	
				Development Guidelines, 4.48.4.2.2 Identifying	
			1.	In developing a valuation conclusion, the Valuator should define the assignment and determine the scope of work necessary by identifying the following:	
				Property to be valued?	
				Interest to be valued?	
				Effective valuation date?	
				Purpose of valuation?	
				Use of valuation?	
				Statement of value?	
				Standard and definition of value?	
				Assumptions?	
				Limiting conditions?	
				Scope limitations?	
				Restrictions, agreements, and other factors that may influence value?	
				Sources of information?	

Yes	No	N/A	
			Development Guidelines, 4.48.4.2.3 Analyzing
			1. In developing a valuation conclusion, the Valuator should analyze the relevant information necessary to accomplish the assignment, including:
			The nature of the business and the history of the enterprise from its inception?
			The economic outlook in general and the condition and outlook of the specific industry in particular?
			The book value of the stock or interest and the financial condition of the business?
			The earning capacity of the company?
			The dividend-paying capacity?
			Existence or nonexistence of goodwill or other intangible value?
			Sales of the stock or interest and the size of the block of stock to be valued?
			The market price of stocks or interests of corporations or entities engaged in the same or a similar line of business having their stocks or interests actively traded in a free and open market, either on an exchange or over-the-counter?
			Other relevant information?
			2. Did the Valuator give consideration to all of the three generally accepted valuation approaches, which are the asset-based approach, the market approach, and the income approach?
			3. Did the Valuator use professional judgment to select the approach(es) ultimately used and the method(s) within such approach(es) that best indicate the value of the business interest?
			4. Did the Valuator analyze and, if necessary, adjust historical financial statements to reflect the appropriate asset value, income, cash flows, and/or benefit stream, as applicable, to be consistent with the valuation methodologies selected by the valuator?
			5. Did the Valuator select the appropriate benefit stream, such as pretax or after-tax income and/or cash flows, and select appropriate discount rates, capitalization rates, or multiples consistent with the benefit stream selected within the relevant valuation methodology?
			6. Did the Valuator determine an appropriate discount and/or capitalization rate after taking into consideration all relevant factors such as:
			The nature of the business?
			The risk involved?
			The stability or irregularity of earnings?
			Other relevant factors?
			7. As appropriate for the assignment, and if not considered in the process of determining and weighing the indications of value provided by other procedures, the Valuator should separately consider the following factors in reaching a final conclusion of value:
			Marketability, or lack thereof, considering the nature of the business, business ownership interest or security, the effect of relevant contractual and legal restrictions, and the condition of the markets?
			Ability of the appraised interest to control the operation, sale, or liquidation of the relevant business?
			Other levels of value considerations (consistent with the standard of value in Section 4.48.4.2.2 [1] list item g), such as the impact of strategic or synergistic contributions to value?
			Such other factors which, in the opinion of the Valuator, are appropriate for consideration?

Yes	No	N/A		
				Development Guidelines, 4.48.4.2.4 Workpapers
			1.	The workpapers should:
				Document the steps taken?
				Document the techniques used?
				Provide the evidence to support the facts and conclusions in the final report?
			2.	Did the Valuator maintain a detailed case activity record (Form 9984, Examining Officer's Activity Record) that:
				Identifies actions taken and indicates time charged?
				Identifies contacts, including name, phone number, subject, commitments, etc.?
				Documents delays in the examination?
			3.	The case activity record, along with the supporting workpapers, should justify that the time spent is commensurate with work performed?
				Development Guidelines, 4.48.4.2.5 Reviewing
			1.	In reviewing a business valuation and reporting the results of that review, did the Valuator form an opinion as to the adequacy and appropriateness of the report being reviewed?
			2.	Did the Valuator clearly disclose the scope of work of the review process undertaken?
			3.	In reviewing a business valuation, did the Valuator do the following: Identify the:
				Taxpayer?
				Intended use of the Valuator's opinions and conclusions?
				The purpose of the review assignment?
				The report under review?
				The property interest being valued?
				The effective date of the valuation?
				The effective date of the review?
				Scope of the review process conducted?
				Determine the completeness of the report under review?
				Determine the apparent adequacy and relevance of the data and the propriety of any adjustments to the data?
				Determine the appropriateness of the valuation methods and techniques used and develop the reasons for any disagreement?
				Determine whether the analyses, opinions, and conclusions in the report under review are appropriate and reasonable, and develop the reasons for any disagreement?
			4.	In the event of a disagreement with the report's factual representations, underlying assumptions, methodology, or conclusions, did the Valuator conduct additional fact-finding, research, and/or analyses necessary to arrive at an appropriate value for the property?
				Resolution Guidelines 4.48.4.3
			1.	Did the Valuator make efforts to obtain a resolution of the case after fully considering all relevant facts?
				Resolution Guidelines, Objective 4.48.4.3.1
			1.	Is the Valuator aware that the objective is to resolve the issue as early in the examination as possible?
			2.	Did the Valuator perform credible and compelling work that will facilitate resolution of issues without litigation?
			3.	Did the Valuator work in concert with the internal customer and taxpayer to

attempt to resolve all outstanding issues?

Yes	No	N/A			
			Resolution Guidelines, Arriving at Conclusions 4.48.4.3.2		
			1. Once the Valuator has all the information to be considered in resolving the issue, did the Valuator use his/her professional judgment in considering this information to arrive at a conclusion?		
			the Valuator did not have all of the information that he/she would have liked to ave to definitively resolve the issue, which may happen, the Valuator should decide then he/she has substantially enough information to make a proper determination		
			3. Did the Valuator employ independent and objective judgment in reaching conclusions and decide all matters on their merits, free from bias, advocacy, and conflicts of interest?		
			Reporting Guidelines, 4.48.4.4		
			Did the Valuator prepare reports of his/her findings?		
			2. Is the Valuator aware that this section requires specific information to be included or addressed in each report?		
			Reporting Guidelines, Overview 4.48.4.4.1		
			1. Did the Valuator meet the primary objective of a valuation report, which is to provide convincing and compelling support for the conclusions reached?		
			2. Did the valuation report contain all the information necessary to allow a clear understanding of the valuation analyses?		
			3. Did the valuation report demonstrate how the conclusions were reached?		
			Reporting Guidelines, Report Contents 4.48.4.4.2		
			1. Is the Valuator aware that the extent and content of the report prepared depends on the needs of each case?		
			2. Did the valuation report clearly communicate the results and identify the information relied upon in the valuation process?		
			3. Did the valuation report effectively communicate the methodology and reasoning as well as identify the supporting documentation?		
			4. Subject to the type of report being written, did the valuation reports generally contain sufficient information relating to the items in Identifying and Analyzing to ensure consistency and quality?		
			5. If the report was written with respect to Reviewing, did the report contain, at a minimum, information relating to those items in Identifying and Analyzing necessary to support the revised assumptions, analyses, and/or conclusions of the Valuator?		
			Reporting Guidelines, Statement 4.48.4.4.3		
			1. The written valuation report should contain a signed statement that is similar in content to the following:		
			To the best of my knowledge and belief:		
			The statements of fact contained in this report are true and correct.		
			The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions.		
			I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved with this assignment.		
			I have no bias with respect to the subject of this report or to the parties involved with this assignment.		
			My compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.		
			My analyses, opinions, and conclusions were developed, and this report has been prepared in conformity with the applicable Internal Revenue Service Valuation Guidelines. Explain any "No" or "N/A" answers on the next page		

Explanation of "No" or "N/A" Answers					
Item #	Explanation				
_					
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VALUATION INFORMATION REQUEST (VIR) GENERAL CHECKLIST 8.5:

Business Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated.

Provided N/A Financial Information 1. Financial statements for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal). 2. Interim financial statements for the month-end DATE OF VALUATION and one year 3. Financial projections, if any, for the current year and the next three years. Include any prepared budgets and/or business plans. 4. Federal and State Corporate Income Tax Returns and supporting schedules for fiscal years ending FIVE YEARS. 5. Explanation of significant nonrecurring and/or nonoperating items appearing on the financial statements in any fiscal year if not detailed in footnotes. \Box \Box 6. Accounts payable aging schedule or summary as of DATE OF VALUATION. 7. Accounts receivable aging schedule or summary and management's general evaluation of quality and credit risk as of DATE OF VALUATION. 8. Restatement of inventories and cost of goods sold on a FIFO basis for each of the past

9. Fixed asset and depreciation schedule as of DATE OF VALUATION. 10. Amortization schedules of mortgages and notes payable; and terms of bank notes, credit lines, and/or debt agreements as of DATE OF VALUATION.

five fiscal years if LIFO accounting is used for inventory reporting purposes.

- 11. Current financial statements for any ESOP, profit-sharing, pension, or other employee benefit trust at DATE OF VALUATION.
- 12. Current level of over- (under-) funding for any defined benefit plan at DATE OF VALUATION.

- 13. Description of any compensation, salaries, dividends, or distributions received by persons not active in the operations of the business, including the year and respective compensation.
- 14. Estimated total revenue, gross profit, and net income for the current fiscal year.
- 15. Explanation of fluctuations, growth, or decline in revenue of the business during the past five years.
- 16. Explanation of expected failure of the business to meet this year's budget based on the year-to-date financial data, if applicable.
- 17. Description of any anticipated significant rate increases in the cost of labor or materials.
- 18. Estimate of revenues, gross profits, and earnings before interest and tax (EBIT) for the next five years if revenue growth, gross margins, or net margins are expected to be significantly different as compared to the past five years.
- 19. Explanation of expected changes in the amount of capital expenditures during the next five years if expectations differ from those incurred during the past five years, including the anticipated new levels of capital expenditures.

Provided	N/A		
			Financial Information (continued)
		20.	Average borrowing rate for the business and financial ratios that must be maintained to comply with lenders' credit terms.
		21.	Description of any assets with stated net book value on the balance sheet that differ significantly from the fair market value that could be realized if the business were liquidated (i.e., appreciated real estate, obsolete inventory, or equipment).
		22.	Description of any assets owned by the business that are not being used in the operation of the business (i.e., excess land, investments, excess cash, unused equipment, etc.).
			Products and Markets
		23.	List of the major products, services, or product lines of the business and copies of marketing materials, including sales brochures, catalogs, or other descriptive sales materials.
		24.	Sales and profit contributions analysis by product, product line, service category, customer, subsidiary, and/or location (whichever is applicable).
		25.	Unit volume analyses for existing product lines for the past five years.
		26.	Description of major products or services added in the last two years (or anticipated) and current expectations as to sales potential.
		27.	Description of the features, if any, that distinguish the business's products or services from the competition.
		28.	Causes for the cost of products and services supplied to your business to fluctuate, and list of alternative suppliers available at similar rates, if any.
	<u> </u>		Description of new products under development, with expectations as to potential. List of the top 10 customers of the business, indicating sales (or sales on which commissions were earned) and unit volumes for each of the past three fiscal years if customers are consolidated.
		31.	Summary of major accounts gained (lost) in the last year, indicating actual sales in the current year and beyond.
		32.	List of major competitors (full name, location, size, and estimated market share of each).
		33.	List of trade association memberships and industry publications of interest to management.
		34.	Classification of the business's industry (SIC No. or NAICS No.).
		35.	Description of any significant business operations that have been discontinued in recent years or are expected to be discontinued in the future (i.e., sale of facility or business line, closed-out product line, etc.), including date of discontinuation and impact on revenues and profits.
		36.	Description of any significant business operations that have been added in recent years or are expected to be added in the near future (i.e., purchase of facility, business acquisition, introduction of new product line, etc.), including date of addition and financial impact.
		37.	List of the names of all principal suppliers accounting for over 10 percent of total purchases.
			Summary of terms of any existing purchase agreements with principal suppliers.
			Summary of importance of research and development to the success of the business.
			Characteristics of customers (i.e., industries served, demographics).
		41.	Approximate number of customers that the business has and percentage that are repeat clientele.

Provided	N/A		
			Products and Markets (continued)
		42.	Approximate time the average customer has been purchasing from the business.
		43.	Description of customers that account for over 10 percent of annual revenue or gross profit of the business.
		44.	Summary of any contractual agreements with customers and/or distributors.
		45.	Description of any contracts or agreements with customers, suppliers, or distributors that would be nontransferable if the business were sold.
		46.	Number of clients that would discontinue relations with the business if the business were sold, including reason(s) and the estimated impact on revenues.
		47.	Summary of factors that stimulate demand for the business's products or services.
		48.	Description of seasonal or cyclical factors, if any.
		49.	Reason for increases or decreases of major competitors during the past five years, including their respective market share.
		50.	Approximate percentage of the market the subject business holds.
		51.	Description of level of difficulty to enter into the market or industry by potential competitors.
			Description of the differences of the subject business from its competitors, including price, quality, strengths, and weaknesses.
		53.	List of any publicly held companies or subsidiaries known to operate in your industry.
		54.	Name, address, and phone number of contact at industry organization that assists with market data, if any.
			Operations
		55.	In a paragraph or so, complete this statement: "Our company is in the business of"
		56.	Name and description of the operations of all major operating entities, whether divisions, subsidiaries, or departments.
		57.	List of the top 10 suppliers (or all accounting for 5 percent or more of total purchases) and the level of purchases in each of the past two years (include total purchases by the business in each year).
		58.	List of product(s) on which the business is single-sourced or suppliers on which the business is otherwise dependent.
		59.	Dividend policy, dividend history, and prospect for future dividends.
		60.	Copy of any existing employee stock ownership plan (ESOP).
		61.	Copies of all other stock option plans or option agreements, or any other plan providing vested benefits in business stock. Also list number of options granted and to whom, and the stated exercise price(s) and expiration date(s).
		62.	Basis for business contributions (contribution policy), contributions in each of the past five years, and projection for future contributions to the ESOP, pension plan, and/or profit-sharing plan.
		63.	The most recent projection of emerging ESOP repurchase liability. If no study has been done, list known ESOP liquidity requirements during the next three years (e.g., known retirements during period).
		64.	Description of any services performed for, or by, a related party or business, including services provided, dollar amounts, nonmonetary benefits, and if transactions are at market rates.

(continues)

Provided	N/A		
			Facilities
		65.	Location, age, and approximate size of each facility. Provide or estimate business volum by major facility.
		66.	Ownership of each facility and other major fixed assets. If leased, include name of lesson and lease terms or agreements. If owned by the business, include: Date purchased; Purchase price; Recent appraisals; Insurance coverage; and Book values.
		67.	Estimated depreciation of all assets on a straight-line depreciation basis if accelerated depreciation is used for financial statement purposes.
			Copies of any appraisals of real estate or personal property owned by the business. Copies of any appraisals of any company-owned real property or personal property performed during the last three years.
			Comparison of rates of leases to market rates if facilities are rented from a related party. Description of the terms of the real estate lease, including date of expiration, anticipated lease rate changes, and whether it is renewable.
		72.	Estimate of the cost to relocate business operations, including lost profits from business interruption.
		73.	Percentage of total capacity (expressed as percentage of total revenue) of the current business operations.
<u> </u>			Description of changes in total operating capacity during the past five years (i.e., physical expansion, technological improvement), including related expenditures. Based on future expected growth, description of when additional facilities or expansion (if foreseeable) will be needed, including approximate cost.
		76.	Approximate current and historical backlog (in revenues) or waiting list (number of customers).
			Personnel
		77.	Current organization chart.
		78.	Number of employees (distinguish full-time and part-time) at year end for the last six years, including current employee classifications, general wage scales, and approximate rate.
		79.	List of all union relationships, including name of union, date of current agreement, workers and facilities covered.
		80.	Number of part-time and full-time business-employed salespersons, including compensation arrangements or schedules. If there are none, describe how sales are obtained and by whom.
		81.	Description of the management team, including current title, age, length of service, background, annual salary, and bonus for the current year and each of the last two years.
		82. 83.	Full names of the board of directors, including occupation of outside members. Summary of employee turnover (i.e., below average, average, or above average) compared to your industry.
			Adequacy of supply of labor.
_	_		Summary of employee compensation (i.e., below average, average, or above average) compared to your industry.
		86.	Description of any significant staffing changes or increases anticipated during the next three to five years.
		87.	Description of terms of any contracts with personnel, such as noncompete agreements or employment contracts.

Provided	N/A		
			Personnel (continued)
		88.	Description of significant adverse effect on the operating performance of the business due to the loss of a key employee or manager, including potential revenue losses.
		89.	Specify succession of management, if determined.
		90.	Description of staff members who would not be retained if the business were sold, including their respective current compensation and position with the business.
			Corporate Documents and Records
		91.	Corporate charter, articles of incorporation, and/or bylaws.
			Minutes of board of directors and shareholders' meetings for the most recent three years (may be reviewed by us on-site).
			Summary of major covenants or agreements binding on the business (e.g., union contracts, capital leases, employment contracts, service contracts, product warranties, etc.)
		94.	Description of any pending litigation, including parties involved, date of filing, description and nature of the lawsuit or claim, current status, expected outcome, and financial impact.
		95.	List of all subsidiary companies and the percentage ownership in each.
		96.	Name of any "related" companies (common ownership, common shareholders, etc.) and brief description of the relationship(s).
		97.	Stock ledger.
			All closing statements and purchase agreements related to all purchases of the business's stock over the history of the business.
			All closing statements and purchase agreements related to all mergers or acquisitions by the business up to the valuation date.
		100.	Copies of any appraisals of the stock or assets of the business made during the last three years.
			State(s) and year of incorporation or registration.
			Form of ownership (C corporation, S corporation, general partnership, limited partnership, sole proprietorship).
		103.	List of the largest ownership interests in the business, including name of owner, percentage of shares held and position with business or inactive in business, total shares authorized, total shares issued, and total shares outstanding.
		104.	Description of any unusual stock features (i.e., voting or nonvoting, preferred or convertible, class A and class B).
		105.	Description of any restrictions on the sale or transfer of ownership interests (buy-sell agreement, lettered stock option to buy, stock options, etc.).
			Description of familial or other relationships among owners.
			Description of sales or transfers of any ownership interests in the business in the past five years, including how the price or value was determined.
			Description of any bona fide offers to purchase the business during the past five years.
			Analysis of adequacy of the current business insurance.
		110.	Description of any subsidiaries, joint ventures, or investments of a material nature in other companies

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CHECKLIST 8.6: VALUATION INFORMATION REQUEST (VIR) BANK/HOLDING COMPANY

Company Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provided	N/A		
			Financial Statements (Banks Only)
		1.	Financial statements for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal).
		2.	Federal and State Corporate Tax Returns (if not consolidated) for fiscal years ending FIVE YEARS at DATE OF VALUATION.
			Call Reports (include all schedules) as of DATE OF VALUATION.
			Uniform Bank Performance Reports as of DATE OF VALUATION.
		5.	Internally prepared financial statements. (Audits are sometimes presented in abbreviated form and with supplementary schedules. Please provide copies with supplementary schedules. Also, please provide copies of auditors' management letters for most recent two years.)
			Financial Statements (Holding Company If Applicable)
	۵	1.	Financial statements for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal).
		2.	Federal and State Corporate Tax Returns (if not consolidated) for fiscal years ending FIVE YEARS at DATE OF VALUATION.
		3.	Holding Company Form Y-9 filed with Federal Reserve as of DATE OF VALUATION.
			Holding Company Performance Reports as of DATE OF VALUATION.
		5.	Internally prepared financial statements as of DATE OF VALUATION, including shareholder reports, 10-Ks and 10-Qs if they are prepared. Parent Company Only and Consolidated.
			Employee Stock Ownership Plan/Trust (If Applicable)
	۵	1.	DATE OF VALUATION Financial Statement (unaudited) or most recent if DATE OF VALUATION Statement not yet prepared.
			Accountant's Report for DATE OF VALUATION.
		3.	If ESOP is leveraged, name lender, amount, and terms of debt.
			Other Financial Documents
		1.	Bank budget as of DATE OF VALUATION.
		2.	Holding company budget as of DATE OF VALUATION.
			Any multiyear projection or business plan available for the bank and/or the holding company.
			If you are a "public reporting company" with the SEC or the FDIC, copies of all documents filed with the SEC or FDIC during YEAR OF VALUATION.
			Copies of any offering materials prepared in conjunction with any offering of equity or debt securities during YEAR or PRIOR YEAR OF VALUATION.
			Directors' examination reports.
		7.	Letters from outside auditors.

Provided N/A

Corporate Documents and Records

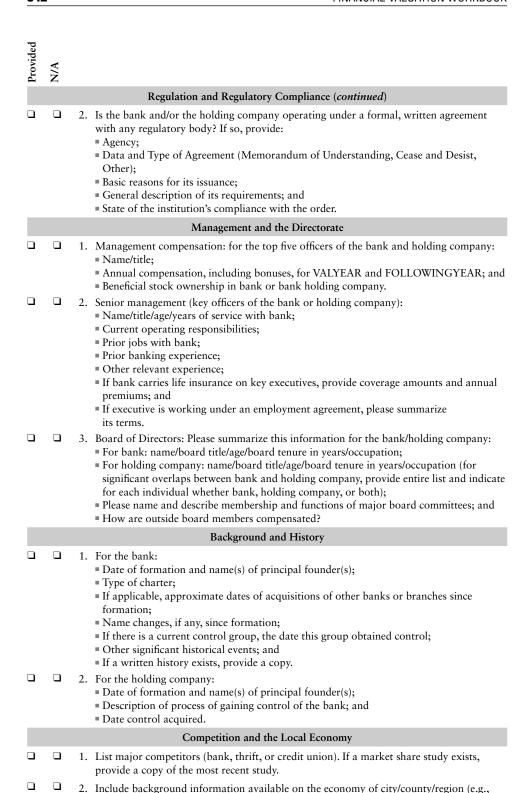
- Summary shareholder list (for the entity being valued) showing names and number of shares owned and detailing:
 - Directors and officers;
 - Employee stock ownership plan; and
 - All other 5 percent (or more) shareholders by name. If a family controls more than 5 percent even though no individual does, please note this.
- 2. If there is a controlling group of shareholders, please provide:
 - The complete list of shareholders with their holdings;
 - Copy of any Voting Trust Agreement between the controlling parties;
 - Copy of any restrictive legends applicable to the institution's shares; and
 - Copy of documentation regarding any hybrid equity securities at either the bank or holding company level, including:
 - Stock options;
 - Warrants (to purchase shares); and
 - Other convertible securities (convertible debentures, convertible preferred stock, etc.).
- □ 3. Board of directors' minutes: Provide copies of bank and/or holding company minutes during YEAR OF VALUATION, or

excerpts pertaining to discussions of these topics:

- Merger with or acquisition by another banking institution;
- Purchase or sale of branch facilities;
- Purchase, sale, or creation of nonbank subsidiaries;
- Response to report of regulatory examination;
- Declaration or payment of dividends or establishment of dividend policy;
- Plans to raise capital in any form, including the refinancing of capital notes or holding company debt;
- Plans to renovate existing facilities or to build new facilities;
- Discussions of or approval of any off-balance sheet hedging activities;
- Discussions of nonroutine charges to the allowance for loan losses or provisions to the allowance for loan losses; and
- Business planning or financial projections for YEAR OF VALUATION and beyond.
- 4. ESOP Documentation:
 - Copy of ESOP document provisions related to repurchase of employee shares specifying obligation to repurchase, terms or repurchase, and other material factors;
 - Specify ESOPs repurchase obligation and terms of repurchase;
 - If the holding company has a repurchase option or obligation related to ESOP shares, please specify;
 - Copy of any ESOP study of its repurchase liability. If there is no study, please list known liquidity requirements for next three years from anticipated retirements or other commitments to repurchase shares;
 - Current ESOP contribution policy or basis for determining annual contributions;
 - Provide estimated ESOP contribution for YEAR OF VALUATION, VALYEAR+1 and VALYEAR+2; and
 - Accounting treatment of leveraged ESOP if not noted in financial statements.
- 5. Documentation of transactions on known stock transactions during the last year(s) in this form:
 - Date;
 - Purchaser;
 - Seller;
 - Price/Director/Explanatory; and
 - Shares Offered Comments.

Provide	N/A		
			Banking Facilities
		1.	List of all banking branch facilities, indicating for each: Branch name/location; Actual (or approximate) deposit and loan volumes; Whether full service or specific limited services; Number of (FTE) employees at branch; Whether facility-owned or leased (if lease, from whom on what terms?); Approximate square footage of the facility; Book value of facility on institution's books; and Approximate fair market value of the facility.
		2.	If the bank is holding-improved or unimproved real estate for future expansion (or which is otherwise not presently occupied), provide: Description; Date acquired and acquisition cost; and Estimated (or appraised) current fair market value.
			Other Assets
		1.	Current list of equity securities (including convertible and preferred stocks) owned by the bank or holding company as of the DATE OF VALUATION, including: Name of security; Current carrying) cost; and Current market value.
		2.	List of all mutual fund investments owned, including: Name of fund(s); Original cost(s); and Current carrying cost and the amount of any equity allowance related to the mutual funds.
		3.	Bond portfolio printout summary page(s) detailing book value, market value, weighted average rate, and weighted average maturity by each major category of the bond portfolio: U.S. Government and Agencies; Tax-exempt securities; and Other securities.
			Summarize the bank's present investment portfolio positioning strategy in a paragraph or so. Any additional assets that may be considered temporary (debt repossessions) or not
			directly related to the bank's normal course of business.
			Data Processing Facilities
			Description of the current data processing system in use by the bank and discussion of its adequacy for the current level of operations.
	_		If the system is an in-house system, when did the bank go on it?
		3.	If using a data center, list its name and the date use began.
			Are there currently any plans for changing data centers or purchasing an in-house system? If so, please discuss briefly.
	No		nk Subsidiaries of the Bank or Bank Holding Company, Whether Controlled or Not
	_		Name and description of the business of any operating nonbank subsidiaries.
		2.	Year-end financials for the subsidiaries if not in audited statements or in consolidating financial statements.

Provided	N/A		
			Trust Department Activities
		1.	Brief description of trust activities, including services rendered, number of employees, assets under management, revenues for last three years.
		2.	Summarize future plans for this department.
			Liquidity and Asset/Attainability Management
			State the bank's Liquidity Policy (or operating practice) in a paragraph or so in terms of objectives, target ratios, or other terms you use to track and monitor liquidity.
			GAP (Asset/Liability Management) Policy.
			State the bank's GAP policy in a paragraph or so.
			Who are the management and board members of ALCO Committee (or equivalent)? If available, provide a recent printout from your asset/liability system or planning model providing:
			 Projected balance sheets and income statements over projection horizon GAP reports; and
			A brief statement of the bank's positioning relative to its objectives.
	Lo	an F	ortfolio Information—Determining the Adequacy of the Allowance for Loan Losses (i.e., the loan loss reserve)
		1.	Description of the method used and the frequency of the determination.
		2.	If a written report is developed, please provide a copy (or a summary of results) for the most recent determination.
		3.	Description of the system or process of loan review in use at the bank.
			Lending Policy and Practice
		4.	List the major types of loans routinely made by type and describe typical pricing and maturities for each type.
		5.	 Summarize (or provide a copy of the Loan Policy) the bank's: Stated lending limit authorities "effective Lending Limits in Practice Policy" for out-of-territory loans. Number and dollar volume of loans outside the bank's CRA (Community Reinvestment
			Act) territory, including any loan participations purchased.
		6.	What is the bank's legal lending limit? What is the in-house lending limit?
			Lending Concentrations
		7.	List all loans at the lending limit. If credits to related borrowers constitute a concentration of 50 percent of the lending limit or more, include the relationship totals.
		8.	Does the bank have any known industry concentrations or exposures in its loan portfolio? If so, discuss briefly.
			Regulation and Regulatory Compliance
		1.	Dates of the two most recent regulatory examinations by appropriate category.
			BANK BY STATE BANK BY STATE OCC IF AGENCY NAT'L BANK FEDERAL RESERVE
			Most Recent Next Most Recent



from Chamber of Commerce and local university economics departments).

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CHECKLIST 8.7: VALUATION INFORMATION REQUEST (VIR) EMINENT DOMAIN

Business Name	Date of Damages		

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provided	N/A		
			Financial Information
		1.	Financial statements for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal).
		2.	Financial projections for the DAMAGE year and the next three years.
		3.	Federal and State Corporate Income Tax Returns and supporting schedules for fiscal years ending FIVE YEARS.
			Products and Markets
		4.	Major product services or product lines of the Company.
		5.	Top 10 customers of the Company, indicating sales and unit volume for each of the past three fiscal years.
		6.	Major competitors (full name, location, size, and estimated market share of each).
		7.	Trade association memberships and brochures of the Company.
			Operations
		8.	In a paragraph or so, please complete this statement: "The Company is in the business of \dots "
		9.	List the top 10 suppliers.
		10.	Dividend policy, dividend history, and prospects for future dividends.
		11.	Copies of any appraisals of the stock of the Company made during the last three years.
			Facilities
		12.	Location, age, and approximate size of each facility.
		13.	Ownership of each facility and other major fixed assets. If leased, include name of lessor and lease terms or agreements.
			Real estate appraisal, which should include a fair market value of price per square foot.
		15.	Copies of appraisals of any Company-owned real property or personal property performed during the last three years.
			Personnel
		16.	Current organizational chart.
		17.	Number of employees (distinguish between full-time and part-time).
		18.	Description of the management team, including current title, age, length of company service, and background.
		19.	Full names of the board of directors.

Provided	N/A	
		Corporate Documents and Records
	20.	Corporate charter, articles of incorporation, and/or bylaws.
	21.	Minutes of board of directors and shareholders' meetings for the most recent three years
	22.	Stock ledger.
	23.	All closing statements and purchase agreements related to all purchases of the Company's stock over the history of the Company.
	24.	All closing statements and purchase agreements related to all mergers or acquisitions by the Company up to the valuation date.
		Engineering Data
		Engineering report should include:
	25.	Actual square footage of the take;
	26.	Effect of the take on parking and maneuverability;
	27.	Actual square footage of the building loss due to the taking;
	28.	Suggestions of possible cures, if any; and
	29.	Cost associated to items lost on the property, such as sign, etc.

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CHECKLIST 8.8: VALUATION INFORMATION REQUEST (VIR) GAS AND OIL RIGHTS

Business Name	Date of Damages

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provic	N/A		
			Financial Information
		1.	Financial statements for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal).
		2.	Federal and State Corporate Income Tax Returns and supporting schedules for fiscal years ending FIVE YEARS.
		3.	Provide division orders or other documents showing the subject interests, property identification, and legal description for all producing properties.
		4.	All reserve studies related to the producing properties.
		5.	All remittance advice, canceled checks, statements from banks, and statements from entities controlling distributions related to the oil and gas rights.
		6.	Names, addresses, and phone numbers of operators and purchasers related to the producing properties.
		7.	Joint interest bills for the past 12 months.
			Operations
		8.	Unit agreements.
		9.	Operating agreements.
		10.	Field descriptions including geologic data and well logs, core analyses or studies, pressure data, fluid analyses, drill stem tests, completion reports, gravity information, and other geologic information related to the producing properties.
		11.	Proposed drilling activities, timing related to the proposed drilling activities, estimated costs, and other activities proposed.
		12.	Gas contracts, gathering and transportation agreements, gas balancing and processing agreements.
		13.	Severance and ad valorem tax rates.
		14.	Gas BTU content, including shrinkage data.
		15.	Production histories.
		16.	Decline curves and projections.
		17.	Future oil contracts.
		18.	Posted field prices for oil, gas, condensate, or other minerals or metals.
		19.	Amounts of bonuses or delay rentals for nonproducing properties.

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CHECKLIST 8.9: VALUATION INFORMATION REQUEST (VIR) HIGH-TECH BUSINESS

Business Name	Date of Damages

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provided	N/A		
			Financial Information
		1.	Financial statements for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal).
		2.	Interim financial statements to date as of DATE OF VALUATION and one year prior.
		3.	Federal and State Corporate Income Tax Returns and supporting schedules for fiscal years ending FIVE YEARS.
		4.	Financial projections for a minimum of five years. Projections should include balance sheets, income statements, cash flow statements, and identification of any adjustments of assets to fair market value. Assumptions supporting the projections must be provided.
		5.	Summary of agings of current accounts receivables and payables.
			Products and Markets
		6.	A complete market study. This market study must include potential users by market (geographic and service). The study should also include current and expected competition and current and expected market share.
		7.	Analysis of actual or perceived competition. Should include discussion of alternative sources of information service or product that would be used if the business did not exist.
		8.	Complete website statistical analysis.
		9.	Copies of any relevant industry studies you have purchased, produced, or obtained.
		10.	Description of all strategic alliances and/or partnerships.
		11.	Description and a strength and weaknesses analysis of your information technology infrastructure (software, hardware, bandwidth, etc.).
		12.	Copies of sales materials or other promotional literature.
		13.	History of Company and major competitors.
			Operations
		14.	List of all stock options and warrants, including owner, date granted, number of shares, option period, and exercise price.
		15.	List of all venture funding, including investor, date of investment, number of shares, and type of shares (if preferred).
		16.	Notification of any discussions held or planned to be held with potential investors, buyers, investment bankers, or underwriters.
		17.	Copies of latest two versions of Company's business plan.
		18.	Copies of all prior appraisals of the Company.
		19.	List of five largest customers and their percentage of total sales (if applicable).
		20.	List of five major suppliers, including amounts paid (if relevant).

Provided	N/A		
			Facilities
		21.	Detailed real property information, including any recent appraisals.
		22.	Detailed fixed asset information, including brand, type, age, serial number, and condition of fixed assets (if available).
		23.	Addresses and descriptions of all facilities.
			Personnel
		24.	Officers' compensation for last five years.
		25.	$Detail\ of\ Company\ ownership\ and\ any\ recent\ transactions\ involving\ Company\ stock\ or\ stock\ options.$
			Corporate Documents and Records
		26.	Corporate charter, articles of incorporation, and/or bylaws.
		27.	Minutes of board of directors and shareholders' meetings for the most recent three years (may be reviewed by us on-site).
		28.	Summary of major covenants or agreements binding on the business (e.g., union contracts, capital leases, employment contracts, service contracts, product warranties, etc.).
		29.	Description of any pending litigation, including parties involved, date of filing, description and nature of the lawsuit or claim, current status, expected outcome, and financial impact.
		30.	List of all subsidiary companies and the percentage ownership in each.
		31.	Name of any "related" companies (common ownership, common shareholders, etc.) and briefly describe the relationship(s).
		32.	Stock ledger.
		33.	All closing statements and purchase agreements related to all purchases of the business's stock over the history of the business.
		34.	All closing statements and purchase agreements related to all mergers or acquisitions by the business up to the valuation date.
			Copies of any appraisals of the stock of the business made during the last three years.
			State(s) and year of incorporation or registration.
		37.	Form of ownership (C corp., S corp., general partnership, limited partnership, sole proprietorship).
		38.	List of the largest ownership interests in the business, including name of owner, percentage of shares held and position with business or inactive in business, total shares authorized, total shares issued, and total shares outstanding.
		39.	Description of any unusual stock features (i.e., voting or nonvoting, preferred or convertible, class A and class B).
		40.	Description of any restrictions on the sale or transfer of ownership interests (buy-sell agreement, lettered stock option to buy, stock options, etc.).
		41.	Description of familial or other relationships between owners.
		42.	Description of sales or transfers of any ownership interests in the business in the past five years, including how the price or value was determined.
			Description of any bona fide offers to purchase the business during the past five years.
			Analysis of adequacy of the current business insurance.
		45.	Description of any subsidiaries, joint ventures, or investments of a material nature in other companies.

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CHECKLIST 8.10: VALUATION INFORMATION REQUEST (VIR) PROFESSIONAL PRACTICE

Practice Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provided	N/A		
			Financial Information
			Financial statements for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal).
			Interim financial statements as of DATE OF VALUATION and one year prior. Financial projections for the current year and the next three years. Include any prepared budgets and/or business plans.
		4.	Federal and State Corporate Income Tax Returns and supporting schedules for fiscal years ending FIVE YEARS. Include State Intangible Personal Property Tax Returns.
			Explanation of significant nonrecurring and/or nonoperating items appearing on the financial statements in any fiscal year if not detailed in footnotes.
			Accounts payable aging schedule or summary at DATE OF VALUATION.
			Accounts receivable aging schedule or summary at DATE OF VALUATION.
			A listing of work-in-process, including fees earned but not billed.
			The fee schedule in effect at the valuation date for each staff member, plus each average realization rate (percentage) for the last year.
			Fixed asset and depreciation schedule at DATE OF VALUATION.
		11.	Amortization schedules of mortgages and notes payable; and terms of bank notes, credit lines, and/or ESOP debt agreement(s).
		12.	Current financial statements for the ESOP, profit sharing, pension, or other employee benefit trust.
		13.	Current level of over (under) funding for any defined benefit plan.
			Services and Markets
		14.	List the major services of the Practice and provide copies of marketing materials, including sales brochures, catalogs, or other descriptive sales materials.
		15.	Sales and profit contributions analysis by service category.
		16.	Unit volume analyses for existing services for the past five years.
		17.	Major services added in the last two years (or anticipated) and current expectations as to sales potential.
		18.	New services under development, with expectations as to potential.
		19.	List the top 10 customers of the Practice, indicating sales (or sales upon which commissions were earned) and unit volumes for each of the past three fiscal years.
		20.	Major accounts gained (lost) in the last year, indicating actual sales in the current year and beyond.
		21.	Major competitors (full name, location, size, and estimate market share of each).
			Trade association memberships.
			Majority industry publications of interest to management.

Provided	N/A		
			Operations
			In a paragraph or so, complete this statement: "The Practice is in the business of" Briefly name and describe the operations of all major operating entities, whether divisions, subsidiaries, or departments.
		26.	List the top 10 suppliers (or all accounting for 5 percent or more of total purchases) and the level of purchases in each of the past two years (include total purchases by the Practice in each year).
			Identify services on which the Practice is single-sourced, or suppliers on which the Practice is otherwise dependent.
			Dividend policy, dividend history, and prospect for future dividends.
			Copy of any existing Employee Stock Ownership Plan.
		30.	Copies of all other stock option plans or option agreements, or any other plan providing vested benefits in Practice stock. Also list number of options granted and to whom, and the stated exercise price(s) and expiration date(s).
		31.	For the ESOP, pension plan, and/or profit sharing plan: basis for Practice contributions (contribution policy), contributions in each of the past five years, and projection for future contributions.
		32.	The most recent projection of emerging ESOP repurchase liability. If no study has been done, list known ESOP liquidity requirements during the next three years (e.g., known retirements during periods).
		33.	Copies of any appraisals of the stock of the Practice made during the last three years.
			Facilities
		34.	Location, age, and approximate size of each facility. Provide or estimate business volume by major facility.
		35.	Ownership of each facility and other major fixed assets. If leased, include name of lessor and lease terms or agreements. If owned by the Practice, include date purchased, purchase price, recent appraisals, insurance coverage, and book values.
		36.	If accelerated depreciation is used for financial statement purposes, provide estimated depreciation as if all assets were on a straight-line depreciation basis. If not readily available, please call so we can discuss how to obtain a reasonable estimate with minimal effort.
		37.	Copies of appraisals of any company-owned real property or personal property performed during the last three years.
			Personnel
		38.	Current organization chart.
		39.	Number of employees (distinguish full-time and part-time) at year end for the last six years, including current employee classifications, general wage scales, and approximate rate.
		40.	List all union relationships, including name of union, date of current agreement, workers and facilities covered.
		41.	Number of part-time and full-time Practice-employed sales persons, including compensation arrangements or schedules. If there are none, describe how sales are obtained and by whom.
		42.	Description of management team, including current title, age, length of Practice service, and background. Also, annual salary and bonus of each person for the current year and each of the last two years.
		43.	Full names of the Board of Directors. For outside members, provide occupation.

Provided	N/A		
			Corporate Documents and Records
		44.	Corporate charter, articles of incorporation, bylaws, and/or partnership agreements.
		45.	Minutes of board of directors and shareholders' meetings for the most recent three years (may be reviewed by us on-site.)
		46.	Summary of major covenants or agreements binding on the Practice, e.g., union contracts, capital leases, employment contracts, service contracts, product warranties, etc.
		47.	Description of any pending litigation, including parties involved, date of filing, description and nature of the lawsuit or claim, current status, and expected outcome and financial impact.
		48.	List all subsidiary companies and the percentage ownership in each.
		49.	Name any "related" companies (common ownership, common shareholders, etc.) and briefly describe the relationship(s).
		50.	Stock ledger.
		51.	All closing statements and purchase agreements related to all purchases of the Practice's stock over the history of the Practice.
		52.	All closing statements and purchase agreements related to all mergers or acquisitions by

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CHECKLIST 8.11: VALUATION INFORMATION REQUEST (VIR) MEDICAL PRACTICE

Practice Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provided	N/A		
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			Financial Information
		1.	Financial statements for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal).
		2.	Interim financial statements for the month-end DATE OF VALUATION and one year prior.
		3.	Financial projections, if any, for the current year and the next three years. Include any prepared budgets and/or business plans.
		4.	Federal and State Corporate Income Tax Returns and supporting schedules for fiscal years ending FIVE YEARS.
		5.	Additional financial information: a) Assets included in the financial records not related to the practice; b) Description of the classes of corporate stock (if more than one); c) List of ownership of stock at DATE OF VALUATION; and d) Description of any recent transactions in stock. If none, please so indicate.
		6.	Copies of buy-sell or other restrictive agreements.
		7.	Copies of any prior real estate and business appraisals, if any.
		8.	Reconciliation of amounts distributed to the practice from an Independent Practice Association or similar entity, if applicable.
		9.	Copy of fee schedule with allowables from insurers.
		10.	Data from billing system for the current year and two years prior, by provider and for the entire practice (separate professional from ancillary components), including: a) Most recent aged accounts receivable by payor class with credit balance amounts. b) Annual patient encounter statistics (type [CPT code or similar description] by units of service, gross charge, and receipts. c) Charges/receipts by payor class and self-pay. d) wRVUs by provider.
			Operations
		11.	Historical compensation (W-2, 1099, Schedule K) by provider.
		12.	A fixed asset schedule, including all furniture, fixtures, and equipment utilized in the office. This schedule should include the date of purchase, original cost, approximate condition, and the estimated remaining useful life.
		13.	Copies of profit sharing, pension, or 401-K plans.
		14.	List of inventory and whether it is valued LIFO, FIFO, or specific identification.

(continues)

Provided	N/A		
			Other Documents and Records
		15.	Corporate Charter, Articles of Incorporation, and/or Bylaws.
		16.	Minutes of board of directors and shareholders' meetings for the most recent three years (may be reviewed by us on-site).
		17.	Summary of major covenants or agreements binding on the professional practice, such as capital leases, employment contracts, service contracts, etc.
		18.	Description of any pending litigation, including parties involved, date of filing, description and nature of the lawsuit or claim, current status, and expected outcome and financial impact.
		19.	Name of any "related" companies or professional associations (common ownership, common shareholders, etc.) and the relationship(s). Include percentage of ownership in each.
		20.	Stock ledger.
		21.	Leases.
			Facilities
		22.	Location, age, and approximate size of each facility. Please provide or estimate business volume by major facility.
		23.	Ownership of each facility and other major fixed assets. If leased, include name of lessor and lease terms or agreements. If owned by the Practice, include: a) Date purchased; b) Purchase price; c) Recent appraisals; d) Insurance coverage; and e) Book value.
		24.	If accelerated depreciation is used for financial statement purposes, please provide estimated depreciation as if all assets were on a straight-line depreciation basis.
			Personnel
		25.	Current organization chart.
		26.	Number of employees (distinguish full-time and part-time) at year end for the last six years, including current employee classifications, general wage scales, and approximate rate.
		27.	Description of the management team, including current title, age, length of Practice service, and background. Also, list the annual salary and bonus of each person for the current year and each of the last two years.
		28.	Full names of the board of directors. For outside members, please provide outside occupation.
		29.	Curriculum vitae for each of the providers.
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CHECKLIST 8.12: VALUATION INFORMATION REQUEST (VIR) CONSTRUCTION INDUSTRY

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Business Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provid	N/A						
		Financial Information					
		1.	Financial statements for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal).				
		2.	Job schedule (listing of completed and in-process jobs) for fiscal years ending FIVE YEARS (order of preference: audited, reviewed, compiled, and internal).				
		3.	Interim financial statements for the month-end DATE OF VALUATION and one year prior.				
			Interim job schedule (listing of completed and in process jobs) for the month-end DATE OF VALUATION and one year prior.				
		5.	Financial projections, if any, for the current year and the next three years. Include any prepared budgets and/or business plans.				
		6.	Federal and State Corporate Income Tax Returns and supporting schedules for fiscal years ending FIVE YEARS.				
		7.	Explanation of significant nonrecurring and/or nonoperating items appearing on the financial statements in any fiscal year if not detailed in footnotes.				
		8.	Accounts payable aging schedule or summary as of DATE OF VALUATION, including retentions payable.				
		9.	Accounts receivable aging schedule or summary and management's general evaluation of quality and credit risk as of DATE OF VALUATION, including retentions receivable.				
		10.	Restatement of inventories and cost of goods sold on a FIFO basis for each of the past five fiscal years if LIFO accounting is used for inventory reporting purposes.				
		11.	Fixed asset and depreciation schedule as of DATE OF VALUATION.				
		12.	Amortization schedules of mortgages and notes payable; and terms of bank notes, credit lines, and/or debt agreements as of DATE OF VALUATION.				
		13.	Current financial statements for any ESOP, profit sharing, pension, or other employee benefit trust at DATE OF VALUATION.				
		14.	Current level of over (under) funding for any defined benefit plan at DATE OF VALUATION.				
		15.	Description of any compensation, salaries, dividends, or distributions received by persons not active in the operations of the business, including the year and respective compensation.				
		16.	Estimated total revenue, gross profit, and net income for the current fiscal year.				
			Explanation of fluctuations, growth, or decline in revenue of the business during the past five years.				
		18.	Explanation of expected failure of the business to meet this year's budget based on the year-to-date financial data, if applicable.				
		19.	Description of any anticipated significant rate increases in the cost of labor or materials.				

(continues)

Provided	N/A		
			Financial Information (continued)
		20.	Estimate revenues, gross profits, and earnings before interest and tax (EBIT) for the next five years if revenue growth, gross margins, or net margins are expected to be significantly different as compared to the past five years.
		21.	Explanation of expected changes in the amount of capital expenditures during the next five years if expectations differ from those incurred during the past five years, including the anticipated new levels of capital expenditures.
		22.	Average borrowing rate for the business and financial ratios that must be maintained to comply with lenders' credit terms.
			Description of any assets with stated net book value on the balance sheet that differ significantly from the fair market value that could be realized if the business were liquidated (i.e., appreciated real estate, obsolete inventory or equipment).
		24.	Description of any assets owned by the business that are not being used in the operations of the business (i.e., excess land, investments, excess cash, unused equipment, etc.).
			Products and Markets
		25.	List of the major products, services, or product lines of the business and copies of marketing materials, including sales brochures, catalogs, or other descriptive sales materials.
		26.	Sales and profit contributions analysis by product, product line, service category, customer, subsidiary, and/or location (whichever is applicable).
			Unit volume analyses for existing product lines for the past five years.
			Description of major products or services added in the last two years (or anticipated) and current expectations as to sales potential.
			Description of the features, if any, that distinguish the business's products or services from the competition.
			Causes for the cost of products and services supplied to your business to fluctuate, and list of alternative suppliers available at similar rates, if any.
			Description of new products under development, with expectations as to potential.
		32.	List of the top 10 customers of the business, indicating sales (or sales upon which commissions were earned) and unit volumes for each of the past three fiscal years if customers are consolidated.
		33.	Summary of major accounts gained (lost) in the last year, indicating actual sales in the current year and beyond.
			List of major competitors (full name, location, size, and estimate market share of each).
			List of trade association memberships and industry publications of interest to management.
			Classification of the business's industry (SIC No. or NAICS No.).
		37.	Description of any significant business operations that have been discontinued in recent years or expected to be discontinued in the future (i.e., sale of facility or business line, closed-out product line, etc.), including date of discontinuation and impact on revenues and profits.
		38.	Description of any significant business operations that have been added in recent years or expected to be added in the near future (i.e., purchase of facility, business acquisition, introduction of new product line at a highly data of addition and financial impact.
		39.	introduction of new product line, etc.), including date of addition and financial impact. List of the names of all principal suppliers accounting for over 10 percent of total purchases.
		40.	Summary of terms of any existing purchase agreements with principal suppliers.
			Characteristics of customers (i.e., industries served, demographics).

Provided	N/A		
			Products and Markets (continued)
		42.	Approximate number of customers that the business has and percentage that are repeat clientele.
		43.	Approximate time the average customer has been purchasing from the business.
		44.	Description of customers that account for over 10 percent of annual revenue or gross profit of the business.
			Summary of any contractual agreements with customers and/or distributors.
		46.	Description of any contracts or agreements with customers, suppliers, or distributors that would be nontransferable if the business were sold.
		47.	Number of clients that would discontinue relations with the business if the business were sold, including reason(s) and the estimated impact upon revenues.
		48.	Summary of factors that stimulate demand for the business's products or services.
		49.	Description of seasonal or cyclical factors, if any.
			Reason for increases or decreases of major competitors during the past five years, including their respective market share.
		51.	Approximate percentage of the market the subject business holds.
			Description of level of difficulty to enter into the market or industry by potential competitors.
		53.	Description of the differences of the subject business to its competitors, including price,
		- 4	quality, strengths, and weaknesses.
			List any publicly held companies or subsidiaries known to operate in your industry.
		33.	Name, address, and phone number of contact at industry organization that assists with market data, if any.
			Operations
			In a paragraph or so, complete this statement: "Our company is in the business of" Name and description of the operations of all major operating entities, whether divisions, subsidiaries, or departments.
		58.	List of the top 10 suppliers (or all accounting for 5 percent or more of total purchases) and the level of purchases in each of the past two years (include total purchases by the business in each year).
		59.	List of product(s) on which the business is single-sourced, or suppliers on which the
			business is otherwise dependent.
			Dividend policy, dividend history, and prospect for future dividends.
			Copy of any existing employee stock ownership plan (ESOP).
		62.	Copies of all other stock option plans or option agreements, or any other plan providing vested benefits in business stock. Also list number of options granted and to whom, and the stated exercise price(s) and expiration date(s).
		63.	Basis for business contributions (contribution policy), contributions in each of the past five years, and projection for future contributions to the ESOP, pension plan, and/or profit sharing plan.
		64.	The most recent projection of emerging ESOP repurchase liability. If no study has been done, list known ESOP liquidity requirements during the next three years (e.g., known retirements during periods).
		65.	Copies of any appraisals of the stock of the business made during the last three years.
			State(s) and year of incorporation or registration.
		67.	Form of ownership (C corp., S corp., general partnership, limited partnership, sole proprietorship).
		68.	List of the largest ownership interests in the business, including name of owner, percentage of shares held and position with business or inactive in business, total shares authorized, total shares issued, and total shares outstanding.

Provided	N/A				
			Operations (continued)		
		69.	Description of any unusual stock features (i.e., voting or nonvoting, preferred or convertible, class A and class B).		
		70.	Description of any restrictions on the sale or transfer of ownership interests (buy-sell agreement, lettered stock option to buy, stock options, etc.).		
			Description of familial or other relationships between owners. Description of sales or transfers of any ownership interests in the business in the past		
			five years, including how the price or value was determined. Description of any bona fide offers to purchase the business during the past five years.		
			Analysis of adequacy of the current business insurance. Description of any subsidiaries, joint ventures, or investments of a material nature in		
		76.	other companies. Description of any services performed for, or by, a related party or business, including services provided, dollar amounts, nonmonetary benefits, and if transactions are at market rates.		
			Facilities		
		77.	Location, age, and approximate size of each facility. Provide or estimate business volume by major facility.		
		78.	Ownership of each facility and other major fixed assets. If leased, include name of lessor and lease terms or agreements. If owned by the business include: a) Date purchased b) Purchase price c) Recent appraisals d) Insurance coverage e) Book values		
		79.	Estimated depreciation of all assets on a straight-line depreciation basis if accelerated depreciation is used for financial statement purposes.		
		80.	Copies of any appraisals of real estate or personal property owned by the business.		
		81.	Copies of any appraisals of any company-owned real property or personal property performed during the last three years.		
		82.	Comparison of rates of leases to market rates if facilities are rented from a related party.		
		83.	Description of the terms of your real estate lease, including date of expiration, anticipated lease rate changes, and whether it is renewable.		
		84.	Estimate of the cost to relocate business operations, including lost profits from business interruption.		
		85.	Percentage of total capacity (expressed as percentage of total revenue) of the current business operations.		
		86.	Description of changes in total operating capacity during the past five years (i.e., physical expansion, technological improvement), including related expenditures.		
		87.	Based on future expected growth, description of when additional facilities or expansion (if foreseeable) will be needed, including approximate cost.		
		88.	List of current backlog, including the name of the job, the contract price, the estimated gross profit, and the estimated starting date.		
			Personnel		
		89.	Current organization chart.		
		90.	Number of employees (distinguish full-time and part-time) at year end for the last six years, including current employee classifications, general wage scales, and approximate rate.		
		91.	List all union relationships, including name of union, date of current agreement, workers, and facilities covered.		

Provided	N/A						
			Personnel (continued)				
		92.	92. Number of part-time and full-time business-employed salespersons, including compensation arrangements or schedules. If there are none, describe how sales are obtained and by whom.				
		93.	Description of the management team, including current title, age, length of service, background, annual salary, and bonus for the current year and each of the last two years.				
		94.	Full names of the board of directors, including occupation of outside members.				
			Summary of employee turnover (i.e., below average, average, or above average) compared to your industry.				
			Adequacy of supply of labor.				
		97.	Summary of employee compensation (i.e., below average, average, or above average) compared to your industry.				
		98.	Description of any significant staffing changes or increases anticipated during the next three to five years.				
		99.	 Description of terms of any contracts with personnel, such as noncompete agreements or employment contracts. 				
		100.	Description of significant adverse effect on the operating performance of the business due to the loss of a key employee or manager, including potential revenue losses.				
		101.	Specify succession of management, if determined.				
		102.	Description of staff members who would not be retained if your business were sold, including their respective current compensation and position with the business.				
			Corporate Documents and Records				
		103.	Corporate charter, articles of incorporation, and/or bylaws.				
		104.	Minutes of board of directors and shareholders' meetings for the most recent three years (may be reviewed by us on-site).				
		105.	Summary of major covenants or agreements binding on the business (e.g., union contracts, capital leases, employment contracts, service contracts, product warranties, etc.).				
		106.	Copy of current bonding contracts.				
		107.	Description of any pending litigation, including parties involved, date of filing, description and nature of the lawsuit or claim, current status, expected outcome, and financial impact.				
		108.	List of all subsidiary companies and the percentage ownership in each.				
		109.	Name of any "related" companies (common ownership, common shareholders, etc.) and briefly describe the relationship(s).				
		110.	Stock ledger.				
		111.	All closing statements and purchase agreements related to all purchases of the business's stock over the history of the business.				
		112.	All closing statements and purchase agreements related to all mergers or acquisitions by the business up to the valuation date.				
		113.	Terms of any offers to purchase the business.				

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Exact Business Name

 15. Business code (see tax return).

16. SIC number or NAICS number.

21. Factors you consider most important to your business's success.

17. Type of industry(ies).

19. Date business started.

20. Fiscal year-end date.

18. Important industry trends.

Date of Valuation

CHECKLIST 8.13: MANAGEMENT INTERVIEW—OPERATIONS

A	11				D1	
Ac	ddress		Phone			
Aı	nalyst/	Interv	iewer		Date of Interview	
the bes	valua t of yo	tion o ur abi	f this management interview is to provi f your business. We will keep the infor lity. If necessary, use a separate sheet of oplicable, please indicate N/A. Items also	mation confidential. Despaper, with reference to	scribe the following to the each item number. If some	
Provided	N/A					
			Interview	vee(s)		
		1.	<u>Name</u>	<u>Title</u>	2	
			Purpose and Objectiv	ve of the Valuation		
		2.	The activity or transaction giving rise	to the valuation.		
			Other Information Rega	rding the Transaction		
		3.	Number of shares being valued (each	class).		
			Total number of shares issued (each c	*		
			Total number of shares outstanding (e	each class).		
			Date of the valuation.			
			State of incorporation. Standard of value.			
_	_	٥.		formation		
		0	Corporate In			
			Name, address, and telephone number Name, address, and telephone number			
	_	10.	Description of		in or bookkeeper.	
		11	Type of business.	the Dushiess		
	_		Products/services sold.			
_	_		Type of customers/clients.			
	☐ 14. Location of sales/services.					

Provided	N/A							
			History of the Business					
		22.	From founding to the present, history including people, date, places, new products, markets, and physical facilities.					
		Ownership						
		24. 25.	Shareholder list as of the date of valuation. Transactions in the common stock and basis for price (parties, dates, shares, and prices). Offers to purchase the company, if any. Discuss price, dates, terms, and current status of negotiations.					
		26.	Prior appraisals. Management					
	_	27	Ü					
			Current organizational chart. List key management personnel with title, length of service, age, and annual compensation.					
		29.	Key management positions open at this time.					
			Plans for succession if key-man dependency exists.					
			Adverse impact on business if sudden loss or withdrawal of any key employee.					
		32. Amount and description of key-person life insurance policy, if any.						
			Products and Services					
		33.	Business mix.					
			Changes in business mix.					
			New products/services.					
			Development procedure(s) of new products/services.					
			Expected performance of new products/services.					
			Percent of output manufactured by company. Percentage of manufactured products for resale.					
_			Proportion of sales that are replacement parts.					
_			Note any important differences in profit margins by product line.					
			Markets and the Economy					
		42	Market area.					
_			Determination of market area by market segment, geography, or customer type.					
			Important characteristics of the relevant economic base (obtain information from local Chamber of Commerce if needed).					
			Business sensitivity to economic cycles or seasonal influences.					
			Industry(ies) of market concentration.					
			Approximate percentage of foreign sales, and, if any, total dollar amount of foreign sales.					
	0		Difference in profit margins of foreign sales to domestic sales, if any. New product lines or services under consideration.					
			Customers					
			Major customers and the annual sales to each.					
			Length of relationships and customer turnover.					
u		52.	Company dependency, if any, on small group of large customers or large group of small customers.					

(continues)

Provided	N/A					
			Marketing Strategy			
□ 53. Sales and marketing strategy. □ 54. Sales procedures. □ 55. Sales personnel. □ 56. Basis of sales personnel compensation. □ 57. Risks of obsolescence or replacement by new or similar products. Operations						
			Corporate organization structure (divisions, departments, etc.). Flow of operations that produce the product or service.			
			Production			
		61. 62. 63.	Operating leverage of business (high or low level). Relationship of variable costs and fixed costs to total revenue. Difficulty obtaining liability insurance, if any. Insurance rates. OSHA or EPS concerns in the work environment, if any, including the prospective cost of compliance.			
		65.	Concerns over environmental hazards due to location or previous uses of land or facility.			
		66. Dependency in the production process on patents, licenses, or other contracts not controlled by the company.				
		68. 69. 70. 71. 72. 73. 74. 75.	Major suppliers and for what production inputs. Raw material suppliers that are manufacturers. Raw material suppliers that are wholesalers. Dependency for critical components of the product or service on any one supplier. Name of union, if any. Status of union contract or future organizing activities. Number of past union strikes. Number of full- and part-time employees. Number of employees by division or department. General experience, skill, and compensation levels of employees.			
			Real Property			
		78. 79.	List real estate and equipment used by the company, including name of owner, affiliated parties (if leased), and market terms (if leased). Size, age, condition, and capacity of the facilities. Adequacy of facilities or plans for future expansion. Plant/office facilities including:			
			a) Owners b) Real estate taxes c) Land: = Acreage = Cost = Assessed value = Fair market value, if known d) Buildings: = Type of construction = Age and condition = Location on the property = Assessed value			

Provided N/A

Real Property (continued)

- Fair market value, if known
- Fire insurance amount
- Square feet
- e) Machinery and equipment:
 - Description
 - Age and condition
 - Efficiency utilization (older equipment or state of the art)
 - Future plant, machinery, and equipment requirements, including estimated repairs
- □ 81. Current value of the real estate and equipment.
- □ 82. Appraisals of real estate and equipment, or estimates.

Description of the Capital Structure

	83.	Classes of securities.
	84.	Common stock restrictions (such a

- □ 84. Common stock restrictions (such as a buy-sell agreement or charter restrictions), if any.
- □ 85. Preferred stock terms of issue and protective covenants.
- □ 86. Subordinated debt terms of issue and protective covenants.
- □ 87. Outstanding stock options or warrants.
 - □ 88. Obtain and attach copies of the option agreement.

Other

- □ 89. Dividend policy and dividend history.
- □ 90. Anticipated future dividend payments.
- □ 91. Pending litigation and potential impact on the company.
- □ 92. Existing buy-sell or other restrictive agreements.
- □ 93. Prenuptial agreement, if any.
- □ 94. Profit-sharing, ESOP, or other retirement plans.
- 95. Copy of the ESOP plan, if not already provided.
- 96. Copies of provisions related to shareholder liquidity in the plan.
- 97. Company's regulators (e.g., public service commissions, bank regulators).
- □ 98. Copies of regulatory orders, if any.
- □ 99. General outlook (if not covered elsewhere).
- □ 100. Other pertinent information about the business.

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CHECKLIST 8.14: MANAGEMENT INTERVIEW—FINANCIAL REVIEW

Exact Business Name	Date of Valuation
Address	Phone
Analyst/Interviewer	Date of Interview

The objective of this management interview is to provide us with financial information that will aid us in the valuation of your business. We will keep the information confidential. Describe the following to the best of your ability. If some items are not applicable, please indicate N/A. Items already provided are indicated.

Remember that the objective of the interview is not only to identify changes in numbers but also to ascertain the reasons for the changes.

Provided	N/A		
			Interviewee(s)
۵		1.	Name Title
			Financial Statement Review
		2.	Quality of the financial statements
			Reason(s) for qualifications of audited and qualified statements, if applicable
		4.	Consistency of accounting principles of company-prepared interim statements with accountant-prepared statements
			Balance Sheet Review
		5.	Approximate total asset book value
		6.	Approximate net book value
		7.	Cash
		8.	Minimum level of cash required to operate the company
		9.	Accounts receivable:
			■ Normal terms of sale
			■ Comparison of collection period to industry norms and history
			■ History of bad debts
			■ Receivables concentration by customer
		10.	Inventory:
			 Accounting method used to calculate inventories
			■ Trend in level of inventories and turnover rate
			Obsolete inventory and the amount paid for it
		11.	Other current assets:
			List of current assets
			Current assets not related to the business, if any

Provided	N/A		
<u> </u>	Z		Ralance Shoot Daview (continued)
		12	Balance Sheet Review (continued)
_	_	12.	Fixed assets: Major fixed assets
			Depreciation calculations for book and tax purposes
			Capital budget for the coming years
			Types of fixed assets needed in the future
			List of excess assets
		13.	Notes receivable:
			Names and terms (if due from officers and affiliates, comparison of terms to market rates)
		14.	Other assets:
			■ Long-term
		15.	Notes payable:
			■ Names and terms of vendors
		16.	Accounts payable:
			■ General terms of purchase of goods and services
			■ Trend in payables and turnover ratios
			Taxes payable and deferred taxes
			Other accrued expenses
		19.	Long-term debt:
		20	Names and terms (if secured, state asset[s] used as security)
ш	ш	20.	Mortgage notes payable:
		21	Terms and collateral
	_	21	Any contingent liabilities
		22	Income Statement
			Approximate annual sales volume Sales:
_	_	23.	Reason for changes in sales over the past five years
			Attribution of growth in sales:
			Unit volume
			■ Inflation
			Comparison of growth rate in sales to other items on the income statement
			Projections for the current year and beyond
			Basis for projections
		24.	Costs of goods sold:
			Key factors that affect cost of goods sold
			■ Changes in accounting procedures, if any
		25.	Gross profit margin (GPM):
			 Changes in GPM for the last five years (price increases, cost increases, inventory write-downs, etc.)
		26.	General and administrative expenses:
			Major expense items of the company A second company The second
			Fluctuations in expenses over the last five years
			Nonrecurring expenses included in the totals

Provided	N/A		
			Income Statement (continued)
		27.	Other income/expense:
			Sources
		28.	Taxes:
			■ Federal tax rate
			■ State tax rate
		29.	Hidden or intangible assets, such as:
			■ Patents
			■ Favorable leases
			■ Favorable financing arrangements
			Number of recurring, stable customers
			■ Employment contracts
			Copyrights
			■ Long-term customers' contracts
			■ Trademark
			Unique research and development
			Highly trained staff in place
			■ Undervalued securities or other investments

Commitments for new buildings or machineryLong-term loans outstanding and terms

□ □ 30. Key liabilities

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CHECKLIST 8.15: MANAGEMENT INTERVIEW—INSURANCE AGENCY

Exact Agency Name	Date of Valuation
Address	Phone
Analyst/Interviewer	Date of Interview

The objective of this management interview is to provide us with operational information that will aid us in the valuation of your business. We will keep the information confidential. Describe the following to the best of your ability. If necessary, use a separate sheet of paper, with reference to each item number. If some items are not applicable, please indicate N/A. Items already provided are indicated.

Provided	N/A				
			Interviewee(s)		
		1.	Name <u>Title</u>		
			History of the Business		
		2.	Brief but complete description of the start-up of business.		
			Date business started.		
		4.	Purchases of other businesses during the development of the agency.		
			Corporate Information		
		5.	Name, address, and telephone number of the business accountant or bookkeeper.		
			Owners		
		6.	List all owners by class of stock and percentage owned.		
		7.	Job history and experience (i.e., resumes) of the owners.		
		8.	Ages and health of the owners.		
		9.	Recent transactions in the common stock of the company.		
		10.	Ownership and management perquisites.		
			Personnel		
		11.	List all personnel with title, length of service, age, and annual compensation.		
			Are there any part-time employees?		
			Describe licenses and designations of key personnel, including the year earned.		
			Would losing a key employee affect the business drastically?		
		15.	Provide copies of all noncompete agreements, if any.		
			Real Property		
			Describe the office facilities.		
		17.	Is owned or leased? Provide a copy of the lease, if applicable.		
			Furniture and Equipment		
			Describe the furniture and equipment.		
			Is owned or leased? Provide a copy of the lease(s), if applicable.		
		20.	20. For all owned furniture and equipment, please provide a fixed asset schedule.		

Provided	N/A					
			Insurance Carriers			
		21.	List any EDP terminals owned by insurance carriers that are utilized in the agency.			
		22.	2. Provide copies of all insurance carrier contracts.			
		23.	Have any new carrier contracts been applied for?			
			List all carriers that have terminated contracts, the dates terminated, and the amounts and types of coverage formerly provided in the last full year of representation.			
		25.	Provide the amount of the limit to settle claims, if any.			
			Book of Business			
		26.	Describe the amounts of direct billed and agency billed.			
		27.	Describe the amounts of property/casualty, life, and health premiums.			
		28.	Describe the amounts of commercial and personal lines premiums.			
			Policy Holders			
		29.	If available, please attach a list of all policyholders by product line, the original years of coverage, and if applicable, the years of termination.			
		30.	30. List the five largest policyholders, the amounts of premium, and descriptions of coverage, including the original issue date.			
		31.	Provide the amount of written premium and commissions earned by carrier.			
		32.	Provide the amount of contingency commissions, the applicable carrier, and the year earned.			
			Financial Statements			
		33.	Provide complete financial statements of the business for the last five years.			
		34.	Provide corporate tax returns for the last five years.			
		35.	Provide all production reports for the last five years (or all years available).			
		36.	Provide all photocopies of any buy-sell or other restrictive agreements.			
		37.	Describe any hidden assets or liabilities. These would be items or benefit (or liability) to the agency that may not have been fully reflected in the financial statements. They would include such things as long-term policyholder contracts, lawsuits, or undervalued securities.			
		38.	Have there been any extraordinary or highly unusual downturns or upturns to the business?			
		39.	Have there been any unusual or nonrecurring or credits not evident on the income statements?			
		40.	List any nonoperating assets that are included on recent balance sheets. These would include assets not necessary in the day-to-day operations of the business.			
			Other			
		41.	General outlook (if not covered elsewhere).			
		42.	Is there anything else we should know about the business that we have not already discussed?			

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CHECKLIST 8.16: MANAGEMENT INTERVIEW—PROFESSIONAL PRACTICE

Exact Practice Name	Date of Valuation
Address	Phone
Analyst/Interviewer	Date of Interview

The objective of this management interview is to provide us with operational information that will aid us in the valuation of your practice. We will keep the information confidential. Describe the following to the best of your ability. If necessary, use a separate sheet of paper, with reference to each item number. If some items are not applicable, please indicate N/A. Items already provided are indicated.

Provided	N/A				
			Interviewee(s)		
		1.	Name Title		
			Purpose and Objective of the Valuation		
		2.	The activity or transaction giving rise to the valuation.		
			Partners		
		3.	List key personnel with title, and approximate annual compensation (with bonuses listed separately).		
		4.	Provide an abbreviated curriculum vitae of each partner, including age, education, board certification, and unusual experience.		
		5.	Would the health of all partners be considered excellent? If not, describe any limitations due to health.		
		6.	Describe life insurance in which the firm is the beneficiary.		
		7.	Describe a typical week for the average partner, including the percentage of time spent in the following areas: a) Directly billable b) Administrative c) Promotion d) Civic affairs		
			Practice		
		8.	If not correct above, what is the exact name of the Practice?		
		9.	When was the Practice established? Provide a brief history of the development of the Practice, including past partners, important dates, previous locations, etc.		
		10.	Provide a current organizational chart. Describe the management team, including currentitle, age, length of service, and background. Also, include the annual salary and bonus of each person for the current year and the last two years.		
		11.	Attach a list of all personnel (other than partners and the management team), stating the title/function and compensation of each.		
		12.	List the board of directors by name and title. For outside members, please provide occupation.		

Provided	N/A		
			Practice (continued)
		13.	Describe the growth trends and revenue and operating capacity (billable hours).
		14.	Are any changes in services offered being considered?
		15.	Is the firm responsive to seasonal fluctuations? Please explain.
		16.	How have services been marketed or advertised?
			Facilities
		17.	Describe any land owned, including: a) Acreage b) Original cost c) Approximate fair market value
		18.	Describe any building owned, including: a) Age and condition b) Original cost c) Approximate fair market value d) Fire insurance amount e) Square feet
		19.	Furniture, fixtures, and equipment (FF&E). Since the FF&E schedule has been requested in our valuation information request, there will be no need to duplicate the listing here. What is requested is a discussion of the future plans for significant purchases of FF&E.
		20.	Library: a) Description by major service and/or groups of works b) Original cost c) Replacement cost d) Unique volumes, if any
		21.	Please describe anything else that should be known about the practice for valuation purposes. Any information that will add to (or detract from) the reputation of the practice or the individual practitioners will have a similar effect on the valuation

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CHECKLIST 8.17: MANAGEMENT INTERVIEW—MEDICAL PRACTICE

Exact Practice Name:	Date:
Address:	Phone:
Interviewer:	
The objective of this management interview is to provide us w us in the valuation of your business. We will keep the information to the best of your ability on a separate sheet of p If some items are not applicable, please indicate N/A.	ation confidential. Describe the following
1. Interviewee(s)	
Name a) b) c) d)	Title
2. Description of the Busi	ness
 b) Date the practice was established c) Discuss the history of the practice, from founding to pres dates, past locations, etc. 3. Name, Address, and Telephone Number of 	
4. Name, Address, and Telephone Number of the	ne Practice's Accountant(s)
	ne Practice's Accountant(s)
4. Name, Address, and Telephone Number of the state of th	ne Practice's Accountant(s)

(continues)

8) Lectures delivered

- 9) General health (excellent, good, or poor)
- 10) Expectations of retirement in the near term, if any
- b) Describe life insurance in which the practice is the beneficiary
- c) Describe the typical work week for each doctor, including
 - 1) Average number of patients per day
 - 2) Nature of treatment
 - 3) Average time per patient/treatment
 - 4) Hours worked per day
 - 5) Time spent in
 - i) Office visits/treatments
 - ii) Surgery—hospital
 - iii) Surgery-in office
 - iv) Administration
 - v) Promotion
 - vi) Civic affairs

6. Personnel

- a) Provide a current organizational chart
- Provide a list of employees, other than physicians, at year end for last year, including current employee classifications, general wage scales, and approximate rate (distinguish full-time and part-time)
- c) List management personnel with title, length of service, age, and annual compensation (including bonuses) for the current year and past two years

<u>Name</u>	<u>Title</u>	LOS Age	Compensation
1)			
2)			
3)			
4)			
5)			

- d) List board of directors by name and title, including occupation for outside members
- e) Does the practice use physician extenders? What type of oversight is provided to the extenders?

7. The Practice

- a) Type of marketing
 - 1) Professional referral
 - 2) Patient referral
 - 3) Direct mail
 - 4) Yellow pages
 - 5) Other
- b) Provide list of competition
 - 1) Specialized
 - 2) General
 - 3) Mini-hospitals
- c) Discuss growth trends, revenue, operating capacity, and equity
 - 1) Past
 - 2) Projected
 - 3) Limiting factors

- 4) New products/services being considered
- 5) Any recent sales of stock (or interests) or offers to buy (or sell)
- 6) Any comparable sales of similar practices

8. Property and Equipment

- a) Describe your office facilities
 - 1) Square feet
 - 2) Number of examining rooms
 - 3) Number of operating rooms
 - 4) Number of X-ray rooms
 - 5) If owned, provide
 - i) Age and condition
 - ii) Assessed value
 - iii) Fair market value, if known
 - 6) If leased, amount of monthly payment
- b) Discuss specialized equipment
 - 1) If owned, provide
 - i) Age and condition
 - ii) Assessed value
 - iii) Fair market value, if known
 - 2) If leased, provide amount of monthly payment
- c) List and discuss company-owned vehicles
- d) Describe the library
 - 1) Original cost
 - 2) Replacement cost
 - 3) Unique volumes

9. General Outlook (if not covered elsewhere)
10. Other Pertinent Information about the Practice

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CHECKLIST 8.18: MANAGEMENT INTERVIEW—CONSTRUCTION INDUSTRY

Exact Business Name	Date of Valuation
Address	Phone
Analyst/Interviewer	Date of Interview

The objective of this management interview is to provide us with operational information that will aid us in the valuation of your business. We will keep the information confidential. Describe the following to the best of your ability. If necessary, use a separate sheet of paper, with reference to each item number. If some items are not applicable, please indicate N/A. Items already provided are indicated.

Provide	N/A						
			Interviewee(s)				
		1	. Name Title				
			Purpose and Objective of the Valuation				
		2.	The activity or transaction giving rise to the valuation.				
			Other Information Regarding the Transaction				
		3.	Number of shares being valued (each class).				
		4.	Total number of shares issued (each class).				
		5.	Total number of shares outstanding (each class).				
		6.	Date of the valuation.				
		7.	State of incorporation.				
		8.	3. Standard of value.				
			Corporate Information				
			ame, address, and telephone number of the business attorney.				
		10.	10. Name, address, and telephone number of the business accountant or bookkeeper.				
			Description of the Business				
		11.	Type of business a) General Contractor b) Subcontractor				
		12.	Products/services sold.				
		13.	Type of customers/clients.				
		14.	Location of sales/services.				
		15.	Business code (see tax return).				
		16.	SIC number or NAICS number.				
		17.	Type of industry(ies).				
			Important industry trends.				
			Date business started.				
			Fiscal year-end date.				
		21.	Factors you consider most important to the success of the business.				

Provided	N/A						
			History of the Business				
		22.	From founding to the present, history including people, dates, places, new products, markets, and physical facilities.				
			Ownership				
		23.	Shareholder list as of the date of valuation.				
		24.	Transactions in the common stock and basis for price (parties, dates, shares, and prices).				
		25.	Offers to purchase the company, if any. Discuss price, dates, terms, and current status of negotiations.				
		26.	Prior appraisals.				
			Management				
		27.	Current organizational chart.				
		28.	List key management personnel with title, length of service, age, and annual compensation.				
		29.	Key management positions open at this time.				
		30.	Plans for succession if key man dependency exists.				
		31.	Adverse impact on business if sudden loss or withdrawal of any key employee.				
		32.	Effectiveness of job cost estimators.				
		☐ 33. Amount and description of key-person life insurance policy, if any.					
			Products and Services				
		34.	Business mix.				
		☐ 35. Changes in business mix.					
		36.	New products/services.				
		37.	Development procedure(s) of new products/services.				
		38.	Expected performance of new products/services.				
		39. Note any important differences in profit margins by product line.					
			Markets and the Economy				
		40.	Market area.				
			Determination of market area by market segment, geography, or customer type.				
		42.	Important characteristics of the relevant economic base (obtain information of local chamber of commerce if needed).				
		43.	Business sensitivity to economic cycles or seasonal influences.				
		44.	Industry(ies) of market concentration.				
		45.	Approximate percentage of foreign sales, and, if any, total dollar amount of foreign sales.				
		46.	Difference in profit margins of foreign sales to domestic sales, if any.				
		47.	New product lines or services under consideration.				
			Customers				
			Major customers and the annual sales to each.				
			Length of relationships and customer turnover.				
		50.	Company dependency, if any, on small group of large customers or large group of small customers.				
		51.	Company dependency on bid contracts versus no-bid contracts.				

(continues)

Provided	N/A		
			Bonding
		52.	Surety agent.
		53.	Length of time they have provided bonding credit.
		54.	Amount of bonding credit extended.
		55.	Manner in which the amount of bonding credit is computed.
		56.	Multiple used by the Surety to compute bonding credit.
			Marketing Strategy
		57.	Sales and marketing strategy.
		58.	Sales procedures.
		59.	Sales personnel.
		60.	Basis of sales personnel compensation.
		61.	Risks of obsolescence or replacement by new or similar products.
			Operations
		62.	Corporate organization structure (divisions, departments, etc.).
		63.	Flow of operations that produce the product or service.
			Production
		64.	Operating leverage of business (high or low level).
		65.	Relationship of variable costs and fixed costs to total revenue.
		66.	Difficulty obtaining liability insurance, if any.
		67.	Insurance rates.
		68.	OSHA or EPS concerns in the work environment, if any, including the prospective cost of compliance.
		69.	Concerns over environmental hazards due to location or previous uses of land or facility.
		70.	Dependency in the production process on patents, licenses, or other contracts not controlled by the company.
		71.	Major suppliers and for what production inputs.
		72.	Raw material suppliers that are manufacturers.
		73.	Raw material suppliers that are wholesalers.
		74.	Dependency for critical components of the product or service on any one supplier.
			Name of union, if any.
		76.	Status of union contract or future organizing activities.
			Number of past union strikes.
			Number of full- and part-time employees.
			Number of employees by division or department.
		80.	General experience, skill, and compensation levels of employees.
			Real Property
		81.	List real estate and equipment used by the company, including name of owner, affiliated parties (if leased), and market terms (if leased).
		82.	Size, age, condition, and capacity of the facilities.
		22	A dequacy of facilities or plans for future expansion

Provided N/A

$\mathbf{P}_{\mathbf{I}}$	\mathbf{z}						
		Real Property (continued)					
		84.	Plant/office facilities, including: a) Owners b) Real estate taxes c) Land = Acreage = Cost = Assessed value = Fair market value, if known d) Buildings = Type of construction = Age condition = Location on the property = Assessed value = Fair market value, if known = Fire insurance amount = Square feet e) Machinery and equipment = Description = Age and condition = Efficiency utilization (older equipment or state of the art) = Future plant, machinery, and equipment requirements, including estimated repairs				
			Current value of the real estate and equipment. Appraisals of real estate and equipment, or estimates.				
		00.					
		07	Description of the Capital Structure				
			Classes of securities. Common stock restrictions (such as a buy-sell agreement or charter restrictions), if any.				
			Preferred stock terms of issue and protective covenants.				
			Subordinated debt terms of issue and protective covenants.				
_			Outstanding stock options or warrants.				
_			Obtain and attach copies of the option agreement.				
			Other				
		93.	Dividend policy and dividend history.				
			Anticipated future dividend payments.				
			Pending litigation and potential impact on the company.				
		96.	Existing buy-sell or other restrictive agreements.				
		97.	Prenuptial agreement, if any.				
		98.	3. Profit sharing, ESOP, or other retirement plans.				
		99.	Copy of the ESOP plan, if not already provided.				
		100.	Copies of provisions related to shareholder liquidity in the plan.				
		101.	Company's regulators (e.g., public service commissions, bank regulators).				
☐ 102. Copies of regulatory orders, if any.							
		103.	General outlook (if not covered elsewhere).				

☐ 104. Other pertinent information about the business.

Provided	N/A						
	Financial Statement Review						
		105.	Quality of the financial statements.				
		106.	Reason(s) for qualifications of audited and qualified statements, if applicable.				
		107.	Consistency of accounting principles of company-prepared interim statements with accountant-prepared statements.				
		108.	Method of accounting for long-term contracts.				
			Balance Sheet Review				
		109.	Approximate total asset book value.				
		110.	Approximate net book value.				
		111.	Cash.				
		112.	Minimum level of cash required to operate the company.				
		113.	Minimum level of cash required to satisfy bonding requirements.				
		114.	Marketable securities and other investments and normal terms of sale.				
		115.	Accounts receivable				
			a) Normal terms of sale				
			b) Comparison of collection period to industry norms and historyc) History of bad debts				
			d) Receivables concentration by customer				
			e) Typical retention percentage				
		116.	Costs and estimated earnings in excess of billings (underbillings) and management's billing policy on uncompleted jobs.				
		117.	Inventory				
			a) Accounting method used to calculate inventoriesb) Trend in level of inventories and turnover ratec) Obsolete inventory and the amount paid for it				
		118.	Other current assets				
			a) List of current assets				
_	_		b) Current assets not related to the business, if any				
		119.	Fixed assets a) Major fixed assets				
			b) Depreciation calculations for book and tax purposes				
			c) Capital budget for the coming years				
			d) Types of fixed assets needed in the future				
			e) List of excess assets				
			Notes receivable, including names and terms (if due from officers and affiliates, comparison of terms to market rates).				
			Other assets (describe and identify whether short-term or long-term).				
			Notes payable, including names and terms of vendors.				
		123.	Accounts payable				
			a) General terms of purchase of goods and servicesb) Trend in payables and turnover ratiosc) Typical retentions percentage				
		124.	Billings in excess of costs and estimated earnings (overbillings).				
			Taxes payable and deferred taxes.				
			Other accrued expenses.				
			Long-term debt, including names and terms (if secured, state asset(s) used as security).				
			Mortgage notes payable, including terms and collateral.				
			Any contingent liabilities.				

Provided	N/A		
			Income Statement
			Approximate annual sales volume. Sales a) Reason for changes in sales over the past five years b) Attribution of growth in sales i. unit volume ii. inflation c) Comparison of growth rate in sales to other items on the income statement d) Projections for the current year and beyond e) Amount of bonding credit compared to projections f) Basis for projections
		132.	Costs of goods sold a) Key factors that affect cost of goods sold b) Changes in accounting procedures, if any
		133.	Gross profit margin (GPM), including changes in GPM for the last five years (price increases, cost increases, inventory write-downs, etc.).
		134.	General and administrative expenses a) Major expense items of the company b) Fluctuations in expenses over the last five years c) Nonrecurring expenses included in the totals
			Other income/expense and sources. Taxes a) Federal tax rate b) State tax rate
			Hidden or intangible assets, such as a) Patents b) Favorable leases c) Favorable financing arrangements d) Number of recurring, stable customers e) Employment contracts f) Copyrights g) Long-term customers' contracts h) Trademark i) Unique research and development j) Highly trained staff in place k) Undervalued securities or other investments
		138.	Key liabilities a) Commitments for new buildings or machinery b) Long-term loans outstanding and terms
			Schedules of Completed and Uncompleted Contracts (Job Schedule)
<u> </u>			Approximate annual volume of contracts. Comparison of gross profit margins of completed contracts with the same contract on the prior year's uncompleted jobs.
<u> </u>		141.	the prior year's uncompleted jobs. Comparison of gross profit margins on uncompleted contracts with completed contracts and other uncompleted.
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CHECKLIST 8.19: MANAGEMENT INTERVIEW—LAW PRACTICE

Exact Business Name	Date
Address	Phone
Analyst/Interviewer	

The objective of this management interview is to provide us with operational information that will aid us in the valuation of your business. We will keep the information confidential. Describe the following to the best of your ability on a separate sheet of paper, with reference to each item number. If some items are not applicable, please indicate N/A.

1. Interviewee(s)					
<u>Name</u>	<u>Title</u>				
a)					
b)					
c)					
d)	· ·				

2. Attorneys

 a) List key personnel with title, and approximate annual compensation (with bonuses listed separately)

<u>Name</u>	<u>Title</u>	Compensation	<u>Bonus</u>
1)			
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9)			
10)			

- b) Provide an abbreviated curriculum vitae of each attorney, including age, education, board certification, and unusual experience
- c) Describe any limitations of each attorney due to health
- d) Describe life insurance in which the firm is the beneficiary
- e) Describe a typical week for the average partner, including the percentage of time spent in the following areas:
 - 1) Directly billable
 - 2) Administrative
 - 3) Promotion
 - 4) Civic affairs

3. The Firm

- a) Provide a brief history of the development of the firm, including date firm was established, past partners, important dates, previous locations, etc.
- b) Provide a current organizational chart. Describe the management team, including current title, age, length of service, background, the annual salary, and bonus of each person for the current year and the last two years.
- c) Attach a list of all personnel (other than attorneys and the management team), stating the title/ function and compensation of each.
- d) List board of directors by name and title, including occupation for outside members.
- e) Describe the growth trends, revenue, and operating capacity (billable hours).
- f) Describe changes in legal services offered that are being considered.
- g) Describe firm responsiveness to seasonal fluctuations. (For instance, does the firm have a disproportionate estate practice susceptible to northern residents?)
- h) Previous and future marketing and advertising plans.
- i) Please describe the office facilities, including:
 - 1) Any land owned
 - i) Acreage
 - ii) Original cost
 - iii) Approximate fair market value
 - 2) Buildings owned
 - i) Age and condition
 - ii) Original cost
 - iii) Approximate fair market value
 - iv) Fire insurance amount
 - v) Square feet
 - 3) Furniture, fixtures, and equipment (FF&E). (Since the FF&E schedule has been requested in our valuation information request, there will be no need to duplicate the listing here. What is requested is a discussion of the future plans for significant purchases of FF&E.)
 - 4) Library
 - i) Description by major service and/or groups of works
 - ii) Original cost
 - iii) Replacement cost
 - iv) Unique volumes, if any

4. Other Pertinent Information about the Firm

Any information that will add to (or detract from) the reputation of the firm or the individual practitioners and would have a similar effect on the valuation.

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CHECKLIST 8.20: MANAGEMENT INTERVIEW—ACCOUNTING PRACTICE

Exact Business Name	Date
Address	Phone
Analyst/Interviewer	

The objective of this management interview is to provide us with operational information that will aid us in the valuation of your business. We will keep the information confidential. Describe the following to the best of your ability on a separate sheet of paper, with reference to each item number. If some items are not applicable, please indicate N/A.

1. Interviewee(s)				
<u>Name</u>	<u>Title</u>			
a)				
b)	_			
c)	<u></u>			
c)				

2. Accountants

 a. List key personnel with title, and approximate annual compensation (with bonuses listed separately)

<u>Name</u>	<u>Title</u>	Compensation	<u>Bonus</u>
1)			
2)			
3)			
4)			
5)			

- b) Abbreviated curriculum vitae of each accountant, including age, education, specialty certification, and unusual experience
- c) Accountant limitations due to health, if any
- d) Life insurance in which the practice is the beneficiary
- e) Typical week for the average partner, including the percentage of time spent in the following areas:
 - 1) Directly billable
 - 2) Administrative
 - 3) Promotion
 - 4) Civic affairs

3. The Practice

- a) If not correct above, exact name of the practice
- b) Date practice established
- Brief history of the development of the practice, including past partners, important dates, previous locations, etc.

3. The Practice (continued)

- d) Current organizational chart
- e) List the management team, including current title, age, length of service, background, annual salary, and bonus of each person for the current year and the last two years
- f) List all personnel (other than accountants and the management team), stating the title/function and compensation of each
- g) List board of directors by name and title, including occupation for outside members
- h) Growth trends, revenue, and operating capacity (billable hours) by service line, e.g., audit, tax
 - i) Changes in accounting services being considered
- j) Practice sensitivity to seasonal fluctuations (e.g., does the practice have a disproportionate tax practice)
- k) Sales and marketing strategy
- 1) Office facilities, including:
 - 1. Any land owned
 - i) Acreage
 - ii) Original cost
 - iii) Approximate fair market value
 - 2. Buildings owned
 - i) Age and condition
 - ii) Original cost
 - iii) Approximate fair market value
 - iv) Fire insurance amount
 - v) Square feet
 - 3. Furniture, fixtures, and equipment (FF&E). (Since the FF&E schedule has been requested in our valuation information request, there will be no need to duplicate the listing here. What is requested is a discussion of the future plans for significant purchases of FF&E.)
 - 4. Library
 - i) Description by major service and/or groups of works
 - ii) Original cost
 - iii) Replacement cost
 - iv) Unique volumes, if any

4. Other Pertinent Information about the Practice

Any information that will add to (or detract from) the reputation of the practice or the individual practitioners and would have a similar effect on the valuation.

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CHECKLIST 8.21: VALUATION INFORMATION REQUEST (VIR) COPYRIGHTS

Business Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provided	N/A	
		Copyrights
		1. Provide a list of all copyrighted registrations.
		2. Provide a list of works (articles, books, paintings, etc.).
		3. Identify copyright names that are associated with products and/or services (such as software or report templates).
		4. Identify historical sale of products and/or services employing the works for the last five years.
		5. Provide projection of products and/or services that will employ the works for the next five years.
		6. Are you licensing in or out any copyrighted works? If yes, provide details.

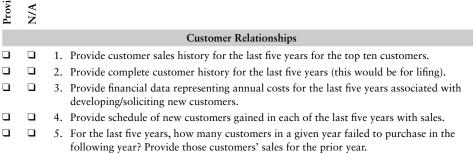
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VALUATION INFORMATION REQUEST (VIR) CHECKLIST 8.22: **CUSTOMER RELATIONSHIPS**

Business Name	Valuation Date	

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provided



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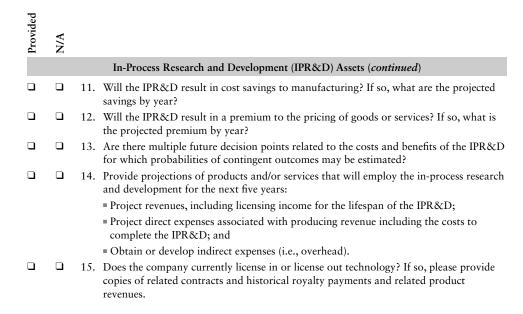
CHECKLIST 8.23: VALUATION INFORMATION REQUEST (VIR) IN-PROCESS RESEARCH AND DEVELOPMENT

Business Name	Valuation Date

This is a generalized information request to assist in preparing an analysis of In-process Research and Development (IPR&D) for fair value accounting under ASC 805, Business Combinations, based on guidance from the AICPA Accounting & Valuation Guide: Assets Acquired to Be Used in Research and Development Activities.

Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provided	N/A	
Ы		In-Process Research And Development (IPRD) Assets
		1. Describe the IPR&D.
_	_	2. Describe competitive advantages and disadvantages of the IPR&D.
	_	 Describe the industry trends and competitive pressures that may affect the useful life of the IPR&D.
		4. Describe whether each IPR&D project has substance—the acquired company has performed R&D activities that constitute more than insignificant efforts that meet the definition of R&D under FASB ASC 730-10 and result in the creation of value.
		5. Describe whether each IPR&D is incomplete and identify the remaining risks.
		6. In support of questions 4 and 5, describe each of the following aspects of the IPR&D at the valuation date:
		Phase of development of the related IPR&D project;
		Nature of the activities and costs necessary to further develop the related IPR&D
		■ The risks associated with the further development of the related IPR&D project;
		• The amount and timing of benefits expected to be derived in the future from the developed asset(s);
		• Whether there is an intent to manage costs for the developed asset(s) separately or on a combined basis in areas such as strategy, manufacturing, advertising, selling, and so on; and
		Whether the asset, whether an incomplete IPR&D project or when ultimately completed, would be transferred by itself or with other separately identifiable assets.
		7. If available, please provide cost records documenting development of the IPR&D:
		Person-hours to develop;
		Various technical levels of persons working on the assignment;
		Pay scales for individuals at each technical review; and
		■ Information to determine overhead rate.
		8. In the absence of cost records, estimate effort to create the IPR&D:
		Who would work on the assignment (employees and consultants);
		Pay rates for individuals in above; and
		Information to determine overhead rate.
		9. What is the probability of completion of each of the IPR&D projects?
		10. What are the post-completion maintenance research and development costs?



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CHECKLIST 8.24: VALUATION INFORMATION REQUEST (VIR) KNOW-HOW

Business Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provide	N/A	
		Know-How
		1. Describe know-how, including competitive advantages and disadvantages.
		2. Describe industry trends and competitive pressures that may affect the useful life of the know-how.
		3. In light of 1 and 2 above, what is the estimated useful life of the know-how?
		4. What products or services employ the know-how?
		5. If available, provide historical cost records documenting development of the know-how: a) Person hours to develop
		b) Various technical levels of persons working on the assignmentc) Pay scales for individuals in 5bd) Information to determine overhead rate
		6. In the absence of historical cost records, estimate corporate effort to re-create the knowhow if it were to be developed from scratch:a) Who would work on the assignment (employees and consultants)b) Pay rates for individuals in 6ac) Information to determine overhead rate
		7. Identify historical sale of revenues for products and/or services employing know-how for the last five years.
		 8. Know-how associated with products and/or services: a) Provide projection of products and/or services that employ the know-how for the next five years b) Project direct expenses associated with producing revenue in 8a c) Obtain or develop indirect expenses (i.e., overhead)
		9. Are you licensing in or out any know-how? If yes, provide details.

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CHECKLIST 8.25: VALUATION INFORMATION REQUEST (VIR) PATENTS

Business Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Patent

- 1. Provide a summary of patents held by the Company.
- 2. Provide copies of patent applications and patent abstracts.
- □ 3. Distinguish which patents have commercial applications (i.e., are producing or are reasonably forecast to produce revenue in the future).
- 4. If available, provide historical cost records documenting development of the patent(s):
 - a) Person hours to develop
 - b) Various technical levels of persons working on the assignment
 - c) Pay scales for individuals in 4b
 - d) Information to determine overhead rate
- 5. Identify patents and associated products that now have or are expected to have commercial viability.
 - a) Prepare forecast or projection of revenues related to patent over the life of the patent
 - b) Project direct expenses associated with producing revenue in 5a
- G. Comment on the possibility of extending patent protection beyond statutory life of patent.
- □ 7. Are you licensing in or out any patents? If yes, provide details.

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CHECKLIST 8.26: VALUATION INFORMATION REQUEST (VIR) SOFTWARE

Business Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

Provided	N/A	
		Software
		. Describe the function of the software.
		 If available, provide historical cost records documenting development of the software: a) Person hours to develop b) Various technical levels of persons working on the assignment c) Pay scales for individuals in 2b d) Information to determine overhead rate
		 In the absence of historical cost records, estimate effort to re-create the software if it were to be developed from scratch: a) Who would work on the assignment (employees and consultants) b) Pay rates for individuals in 3a c) Information to determine overhead rate
		 What was the expected useful life at inception and at valuation date. Obtain support for estimate: a) When was software actually placed in use b) Describe internal development that may extend life c) Describe internal development of replacement software that might shorten life d) Describe external factors that may affect life
		. Obtain historical revenues applicable to software
		 Provide projection of revenues applicable to the software for the next five years: a) Project revenues, including licensing income for lifespan of software b) Project direct expenses associated with producing revenue in 6a c) Obtain or develop indirect expenses (i.e., overhead)

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CHECKLIST 8.27: VALUATION INFORMATION REQUEST (VIR) PROPRIETARY PROCESS/PRODUCTS TECHNOLOGY

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Business Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.

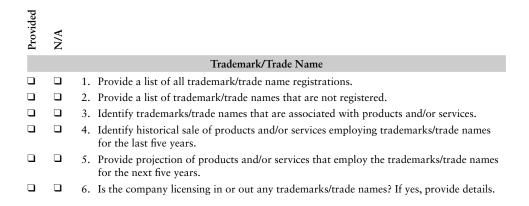
Provide	N/A		
			Proprietary Processes/Products Technology
		1.	Describe the proprietary process/product technology.
		2.	Describe competitive advantages and disadvantages of the proprietary process/product technology.
		3.	Describe industry trends and competitive pressures that may affect the useful life of the proprietary process/product technology.
		4.	In light of 2 and 3 above, what is the estimated useful life of the proprietary process/product technology support?
		5.	If available, please provide historical cost records documenting development of the process/product technology: a) Person hours to develop b) Various technical levels of persons working on the assignment c) Pay scales for individuals in 5b d) Information to determine overhead rate
		6.	In the absence of historical cost records, estimate effort to re-create the process/product technology if it were to be developed from scratch: a) Who would work on the assignment (employees and consultants) b) Pay rates for individuals in 6a c) Information to determine overhead rate
		7.	Identify historical sale of products and/or services employing process/product technology for the last five years.
		8.	What products or services employ the proprietary process/product technology?
		9.	Provide projection of products and/or services that employ the process/product technology for the next five years a) Project revenues, including licensing income for the lifespan of process/product technology b) Project direct expenses associated with producing revenue in 9a c) Obtain or develop indirect expenses (i.e., overhead)
		10.	Are you licensing in or out any technology? If yes, provide details.

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CHECKLIST 8.28: VALUATION INFORMATION REQUEST (VIR) TRADEMARK/TRADE NAME

Business Name	Valuation Date

This is a generalized information request. Some items may not pertain to your company, and some items may not be readily available to you. In such cases, indicate N/A or notify us if other arrangements can be made to obtain the data. Items already provided are indicated. If you have any questions on the development of this information, please call.



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CHECKLIST 8.29: PROCEDURES FOR THE VALUATION OF INTANGIBLE ASSETS

Business Name	Valuation Date	

The definition of intangible asset should include current and noncurrent assets (excluding financial instruments) that lack physical substance. An intangible asset acquired in a business combination shall be recognized as an asset apart from goodwill if that asset arises from contractual or other legal rights. If an intangible asset does not arise from contractual or other legal rights, it shall be recognized as an asset apart from goodwill only if it is separable, that is, it is capable of being separated or divided from the acquired enterprise and sold, transferred, licensed, rented, or exchanged (regardless of whether there is an intent to do so). For GAAP purposes, an intangible asset that cannot be sold, transferred, licensed, rented, or exchanged individually is considered separable if it can be sold, transferred, licensed, rented, or exchanged with a related contract, asset, or liability. However, the value of an assembled workforce of at-will employees acquired in a business combination shall be included in the amount recorded as goodwill regardless of whether it meets the criteria for recognition apart from goodwill.

The purpose of this checklist is to guide the analyst in the valuation of intangible assets. For each item, the analyst should indicate completion, or check the item N/A.

Completed	N/A	
		Valuation
		 Determine the standard of value: a) Fair market value b) Fair value c) Investment value d) Intrinsic value or fundamental value e) Other:
		2. State the purpose of the valuation:
		 3. Determine the premise of value: a) Value in use, as part of a going concern (This premise contemplates the contributory value to an income producing enterprise of the intangible asset as part of a mass assemblage of tangible and intangible assets.) b) Value in place, as part of an assemblage of assets (This premise contemplates that the intangible asset is fully functional, is part of an assemblage of assets that is ready for use but is not currently engaged in the production of income.) c) Value in exchange, in an orderly disposition (This premise contemplates that the intangible asset will be sold in its current condition, with normal exposure to its appropriate secondary market, but without the contributory value of any associated tangible or intangible assets.) d) Value in exchange, in a forced liquidation (This premise contemplates that the intangible asset is sold piecemeal, in an auction environment, with an artificially abbreviated exposure to its secondary market.)
		Intangible Asset Description
	<u> </u>	 4. Is the intangible asset subject to specific identification or a recognizable description? 5. Categorize the intangible asset as: a) Marketing related b) Customer related c) Artistic related d) Contract related e) Technology related
		, 0,

Completed	N/A		
			Intangible Asset Description (continued)
		6.	Determine and list the intangible assets eligible for appraisal.
		7.	Describe fully the intangible asset identified. Attach necessary contracts, drawings, patents, listings, and so on to fully identify the intangible asset.
			History of the Asset
		8.	Describe the legal existence and protection associated with the intangible asset.
		9.	Is the transferability of the ownership restricted? Explain.
		10.	Describe the susceptibility of the asset being destroyed.
		11.	Describe the inception of the intangible asset (attach a list providing start dates for all customer or client lists).
		12.	To what degree is the revenue associated with these intangible assets due to the day-to-day efforts of the owner? Explain.
		13.	Provide isolated financial results directly related to the asset, such as: a) Historical cost to create the asset b) Annual cost to maintain the asset c) Specific cash flow related to the asset
		14.	Provide a description of the history of the asset, including year(s) created.
		15.	Provide all contracts or agreements.
		16.	Provide all strategic, marketing, and business plans related to the asset.
			Industry and Market
		17.	Provide all market or industry surveys or studies related to the asset.
		18.	Describe the competitive environment related to the asset.
		19.	Describe the general economic environment related to the asset.
			Financial Information
		20.	Describe the specific industry environment related to the asset.
		21.	Provide all previous valuation reports related to the asset.
		22.	Provide all financial projections, including unit sales.
		23.	Provide all budgets/forecasts.
		24.	Determine associated cost of capital related directly to the asset.
			Life Cycle
		25.	At what stage in its life cycle is the asset?
		26.	Please describe the product life cycle.
			Valuation Approaches
		27.	Determine valuation approach: a) Cost Approach: The cost approach is based on the principle of substitution. A prudent investor would not pay more for an intangible asset than it would cost to replace that intangible asset with a ready-made comparable substitute. Some intangible assets likely to be valued using the cost approach include computer software, automated databases, technical drawings and documentation,

Completed

37. Complete the cost approach analysis.

N/A

Valuation Approaches (continued)

blueprints and engineering drawings, laboratory notebooks, technical libraries, chemical formulations, food and other product recipes, and so on.

- b) Market Approach: The market approach compares the subject intangible asset with similar or comparable intangible assets that have been sold or listed for sale in the appropriate primary or secondary market. Correlations must be extrapolated.
- c) Income Approach: The income approach measures future economic benefits, discounted to a present value. Different measures of economic income may be relevant to the various income approach methodologies. Given the different measures of economic income that may be used in the income approach, an essential element in the application of this valuation approach is to ensure that the discount rate or the capitalization rate used is derived on a basis consistent with the measure of economic income used.

Cost Approach

28. Determine the appropriate cost method a) Reproduction cost (The cost at current prices to construct an exact duplicate or replica of the subject intangible asset. This duplicate would be created using the same materials, standards, design, layout, and quality of workmanship used to create the original intangible asset.) b) Replacement cost (The cost to create at current prices an asset having equal utility to the intangible asset. Replacement cost utilizes modern methods and standards, state of the art design and layout, and the highest available quality of workmanship.) 29. Determine the appropriate adjustment for obsolescence. a) Physical deterioration (The reduction from cost due to physical wear and tear resulting from continued use.) b) Functional obsolescence (The reduction due to the inability to perform the function or yield the periodic utility for which the asset was originally designed.) c) Technological obsolescence (The reduction due to improvements in technology that make an asset less than an ideal replacement for itself, generally resulting in improvements in design or engineering technology and resulting in greater standardized measure of utility production.) d) Economic obsolescence (The reduction due to the effects, events, or conditions that are not controlled by, and thus external to, the current use or condition of the subject asset.) 30. Determine the number of employees involved in creating the intangible asset. 31. Categorize the employees by salary level. 32. Capture the associated employer cost related to each hour of salary level. 33. Determine the number of hours per employee salary level utilized to develop the asset. 34. Extend the number of hours per salary level by the salary and associated employer cost for an estimate of reproduction costs new. 35. Adjust reproduction cost new for associated deterioration or obsolescence. 36. Compare net result of reproduction cost with replacement cost new.

Completed	N/A		
			Market Approach
		38.	Determine the market served by the guideline or comparable asset.
		39.	Complete a primary and secondary market search for similar guideline assets, including an analysis of available public data specific to royalty rates and intellectual property transactions.
		40.	Determine the historical return on the investment earned by the subject intangible asset.
		41.	Determine the income-generating capacity of the subject intangible asset.
		42.	Determine the expected prospective return on the investment earned by the guideline asset.
		43.	Determine the expected prospective return by the subject intangible asset.
		44.	Determine the historical age and expected remaining useful life of the guideline or comparable intangible asset.
		45.	Determine the historical age and the remaining useful life of the subject intangible asset.
		46.	Analyze the terms of the sale of the guideline or the comparable intangible asset, including: a) The time of the sale b) The price paid c) The payout terms d) Other related terms (including special seller financing and earn-out agreement, noncompete agreement, and so on)
		47.	Determine the degree of adjustment necessary to the guideline or comparable intangible asset related to: a) Physical deterioration b) Functional obsolescence c) Technological obsolescence d) Economic obsolescence
		48.	Determine the degree of adjustment necessary to the subject intangible asset related to: a) Physical deterioration b) Functional obsolescence c) Technological obsolescence d) Economic obsolescence
		49.	Complete extrapolation of market approach correlation.
			Income Approach
		50.	Determine the economic income related to the identified intangible asset for the following: a) Net income before tax b) Net income after tax c) Net operating income d) Gross rental income e) Gross royalty or license income (actual or hypothetical if a relief from royalties method is employed, in which case should include an analysis of available public data specific to royalty rates and intellectual property transactions) f) Gross or operating cash flow g) Net or free cash flow

Completed	N/A		
			Income Approach (continued)
٥		51.	Determine the direct cost associated with maintaining the identified intangible asset. These costs should include cost of operating the asset, storing the asset (facilities), and managing a return from the asset (staff expenses). Pay particular attention to any anticipated unusual costs (such as renewing a patent).
		52.	Determine specific cash flow to the intangible asset by taking an economic return on contributory assets that are part of the initial cash flow stream. Contributory assets include: a) Working capital b) Fixed assets c) Other intangible assets
		53.	Determine an appropriate discount rate reflecting a fair return on the investment by considering: a) The opportunity cost of capital b) The term period of the investment (including consideration of the expected remaining life of the subject intangible asset) c) The systematic risk of the investment d) The unsystematic risk of the investment e) The time value of money f) Growth (utilized for computing terminal value)
		54.	Obtain the necessary data to complete the actuarial retirement rate methodology, including: a) Inception dates for all active files b) Inception dates and retirement dates for all inactive files comprising the subject intangible asset (5-year history desirable)
		55.	In absence of hard data for No. 54 above, obtain management's representations as to: a) Average age of all active files b) Average remaining life of all active files c) Estimate number of visits per file
		56.	Complete the actuarial retirement rate methodology by: a) Observing the data b) Determine the curve fitting using appropriate statistical tools (S-curve, O-curve, L-curve, R-curve)
		57.	Match the actuarial retirement rate curve with the actual data.
		58.	Determine the probable life curve.
		59.	Determine the remaining useful life and survivorship percentages.
		60.	Apply the survivorship percentages to the discounted cash flow.
		61.	Complete income approach methodology.
			Relief from Royalties Method
٥		62.	How is the licensed product unique? What are the competitive advantages of the licensed product, including the scope and remaining life of any patents related to the products?
		63.	Analyze the markets in which the licensee will sell the licensed products, including: a) Market size b) Growth rates c) Extent of competition d) Recent developments

Completed	N/A		
			Relief from Royalties Method (continued)
		64.	Determine the degree of complexity in the sale of the licensed product.
		65.	Determine the extent of customization in customer-specific applications. (Note: Royalty rates are generally inversely related to the level of complexity and licensee customization.)
		66.	Determine the size of the licensed territory, including any restrictions or exclusivity. (Note: Exclusivity is directly correlated to higher royalty rates.)
		67.	Determine the length of the initial license term and provisions for renewal. (Note: Royalty rates will increase if the provisions for renewal are favorable for licensing.)
		68.	What are the provisions for termination? (Note: The conditions for unilateral license termination generally protect the licensor from a material breach committed by the licensee. These terms should be identified.)
		69.	Does a minimum royalty rate exist?
		70.	Analyze the licensee's ability to assign the license to a third party, either directly or indirectly (for instance through the purchase of stock ownership).
		71.	What is the licensor's presence within its own markets?
		72.	What is the licensor's financial viability?
		73.	What is the licensor's size and market share?
		74.	What is the licensor's depth of senior management and stability?
		75.	What is the licensor's depth of technical knowledge?
		76.	What is the licensor's business plan related to the licensed products, including R&D funding and market analysis?
		77.	To what extent and timeliness does the licensor offer to support the licensee, including: a) Technical product advice b) Assisting the licensee with sales c) Assisting the licensee with marketing efforts in the defined territory
		78.	Determine the licensee's available profit percentage available for the royalty (25%? 50%?) dependent upon the following: a) Available profitability as compared with the industry b) The nature of the long-term competitive advantage of the product c) The degree the license terms are favorable to the licensee d) The degree of support and market share offered by the licensor e) The degree of any noncash value offered by the licensee to the licensor f) The degree the licensee is required to purchase certain components used in the manufacturing of licensed products from the licensor (mandatory supply arrangement) g) The degree of foreign exchange risk borne by either the licensee or the licensor (the risk of future devaluation)

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CHECKLIST 8.30: ROYALTY FACTORS

Exact Business Name	Date of Valuation

The objective of this checklist is to provide the analyst with a list of those items generally needed for the valuation of royalty rates. The analyst should initial as each item is obtained. Items not needed may be marked N/A.

Obtained	N/A		
		1.	The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
		2.	The rates paid by the licensee for the use of other patents comparable to the patent in suit.
		3.	The nature and scope of the license, as exclusive or nonexclusive; or as restricted or nonrestricted in terms of territory or with respect to whom the manufactured product may be sold.
		4.	The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
		5.	The commercial relationship between the licensor and licensee, such as whether they are competitors in the same territory in the same line of business or whether they are inventor and promoter.
		6.	The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his nonpatented items; and the extent of such derivative or convoyed sales.
		7.	The duration of the patent and the term of the license.
		8.	The established profitability of the product made under the patent; its commercial success; and its current popularity.
		9.	The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
		10.	The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.
		11.	The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
		12.	The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.
		13.	The portion of the realizable profit that should be credited to the invention as distinguished from nonpatented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.
		14.	The opinion testimony of qualified experts.

(continues)

Obtained N/A

□ 15. The amount that a licensor (such as the patentee) and licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount that a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.²

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¹ Business appraisers may wish to compare *Georgia-Pacific* (318 Federal Supplement 1116 (1970)) Factor 13 to traditional excess-earnings approaches.

² Compare to business appraisal concept of "fair market value."

CHECKLIST 8.31: MANAGEMENT INTERVIEW—PATENT VALUATION

Exact Business Name	Date of Valuation
Address	Phone
Analyst/Interviewer	Date of Interview

The objective of this management interview is to provide us with operational information that will aid us in the valuation of your business. We will keep the information confidential. Describe the following to the best of your ability. If necessary, use a separate sheet of paper, with reference to each item number. If some items are not applicable, please indicate N/A. Items already provided are indicated.

Provided	N/A		
			Interviewee(s)
		1.	Name Title
			Purpose and Objective of the Valuation
		2.	The activity or transaction giving rise to the valuation.
			Patent
		3.	List of patents to be valued, including copy of complete application.
		4.	Provide descriptions of the products and processes encompassed by the patents.
		5.	Describe how the patent will be utilized in a product(s)?
		6.	Describe the firm's R&D facilities.
		7.	Identify the portion of time spent on R&D by each member of the group.
		8.	What has company done to exploit the patent and what are the results?
		9.	Describe the marketplace for the patent, including potential uses, current uses, size of market, etc.
		10.	If there are competing patents, what market share does each of the patents have?
		11.	Have there been any market studies performed related to the patent?
		12.	How will the lack of additional registrations affect the size of the marketplace for the products and the market penetration in other parts of the world?
		13.	How defendable is the patent?
		14.	Why was it not registered in additional countries?
		15.	Has there been any actual, threatened, or potential litigation involving the patent?
		16.	What's the estimated time until the patent becomes technically obsolete?
		17.	What alternatives (real or perceived) are there for the patents for potential users?
		18.	How does the patent benefit the user?

(continues)

Provided	N/A		
			Patent (continued)
		19.	What is the cost to upgrade technology for necessary enhancements to keep it competitive?
		20.	What are the untapped uses of the patent?
		21.	Has the patent ever been offered (or planned to be) for license? If so, on what terms?
		22.	Has the patent ever been (or planned to be) offered for sale? If so, at what price?
		23.	Has the patent ever been valued by internal or external parties?
		24.	If the company is gifting the patent, why does the company want to get rid of the patent? Why was it developed if it isn't necessary?
		25.	If applicable, why do you believe the tax benefit of a charitable donation is more

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CHECKLIST 8.32: MANAGEMENT INTERVIEW—REASONABLE COMPENSATION

Exact Business Name		Date of Valuation
Address		Phone
Analyst/Interviewer		Date of Interview
	,	

The objective of this management interview is to provide us with information that will aid us in the analysis of reasonable compensation. We will keep the information confidential. Describe the following to the best of your ability. If necessary, use a separate sheet of paper, with reference to each item number. If some items are not applicable, please indicate N/A. Items already provided are indicated.

N/A			
		Interviewee(s)	
	1.	Name	<u>Title</u>
			·
		Description of Duties of Profes	ssional
	1.	Discuss the impact of the professional on the co	mpany's financial performance.
	2.	Provide the qualifications—training, education, professional.	licensing, and experience—of the
	3.	How many hours does the professional work? I these duties?	How many are typically required for
	4.	What are the travel requirements of the position	?
	5.	What unique technical, marketing, or innovation would be difficult to replace, if any?	n skills are required by this position that
	6.	Provide the fringe benefits and reimbursed exper	nses of this position.
	7.	What duties, responsibilities, and aspects of the professional? ¹	business are handled by this
	8.	What are the roles/titles used by the company to	describe this position? ¹
	9.	What are the achievements and successes of the	professional in the position?
	10.	What have been the struggles and failures of the	professional in the position?
	11.	Does the professional have relationships with curegulators, referral sources, suppliers, lenders, ar "stickiness" of these relationships?	
	12.	Does the company's reputation rely on the profe	essional's reputation?
	13.	Does a compensation committee or unrelated gr compensation?	oup (board of directors) set
	14.	How is compensation or bonuses of nonowner e	employees determined?
	15.	Who are the highest paid nonrelated employees	and what are their duties?
		1. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14.	Description of Duties of Profe 1. Discuss the impact of the professional on the co 2. Provide the qualifications—training, education, professional. 3. How many hours does the professional work? In these duties? 4. What are the travel requirements of the position would be difficult to replace, if any? 5. What unique technical, marketing, or innovation would be difficult to replace, if any? 6. Provide the fringe benefits and reimbursed expending the professional? 7. What duties, responsibilities, and aspects of the professional? 8. What are the roles/titles used by the company to the professional? 10. What have been the struggles and failures of the professional have relationships with contemporary regulators, referral sources, suppliers, lenders, and "stickiness" of these relationships? 12. Does the company's reputation rely on the professional professional compensation? 13. Does a compensation committee or unrelated gracompensation?

Provided	N/A		
			Description of Duties of Professional (continued)
		16.	Upon what formula or measurement is the owner's/family member's compensation based?
		17.	Has the professional been undercompensated in previous years? Was the intent of the company to make up for the lower compensation to the individual in the future?
		18.	When is the compensation received by the professional?
		19.	How many people would be hired to replace the professional? a) What would the roles/titles/duties be of these individuals? b) What would be the fair compensation for such individuals?
		20.	Has the professional provided guarantees of debt on behalf of the company?
		21.	Does the professional have duties, hobbies, activities, obligations, etc. outside of work that occupy a significant amount of time?
		22.	Is there anything else I should know regarding the compensation or characteristics of the professional or company that would be relevant to setting compensation?
			Other Information Requested
		23.	Employment contracts, noncompete agreements, buy-sells, or other agreements between individuals and the company.
		24.	Owners' compensation history.
		25.	History of distributions taken.

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¹ Be careful of titles. The title used by one business might not be the same as that used by another. Many owners perform multiple duties that would typically be described by various job titles. In some cases, multiple titles/positions may be analyzed for one individual. When one person has multiple titles, it may be appropriate to determine pay for the highest position and then increase it by some reasonable allowance.

CHECKLIST 8.33: REASONABLE COMPENSATION: ADDITIONAL DISCUSSION QUESTIONS

Company

- 1. How long has the business been established?
- 2. Is the company's current financial condition favorable?
- 3. Are financial ratios favorable in terms of sales, income, assets, etc.?
- 4. Are sales and profits stable or growing?
- 5. How do current economic conditions affect the company?
- 6. Does the company prosper in poor economic or industry conditions?
- 7. Does the corporation have a history of paying (at least some) dividends?

Economy and Industry

- 8. Are economic conditions in the industry favorable?
- 9. Is the industry highly competitive?

Policies

- 10. Does the company have a (written) salary policy as to all employees?
- 11. Does the company offer a pension plan or profit-sharing plan to employees? If not, higher compensation may be given as an alternative.
- 12. Does the company have a documented compensation policy that has been followed?
- 13. Are there similarities to how compensation or bonuses of other nonowner employees are determined?
- 14. How does the level of fringe benefits compare to those offered at other companies or to other individuals?
- 15. Was the individual reimbursed for business expenses that the individual paid personally?

Comparisons

- 16. Are data available for individuals performing comparable duties at the subject company or a competitor/comparable company?
- 17. Is the comparison being made to companies in the same or similar geographic area?
- 18. Are compensation levels reasonable in comparison to what individuals of similar businesses receive?
- 19. How does compensation compare to salaries paid with the individual's gross and net?
- 20. How does compensation compare to distributions to officers and retained earnings?
- 21. How does compensation compare to compensation of nonowner employees within the company?
- 22. Does the company consistently pay above-market rates for other employees? If so, an above-market rate may be appropriate for an owner.
- 23. How does the company compare in terms of size, specialization, and complexity of the business?
- 24. How do hours worked compare to previous years and other individuals in the same company and comparable companies?
- 25. Are the quality and/or quantity of services provided by the individual clearly exceptional compared to others?

Compensation

- 26. What is the individual's salary history?
- 27. How consistent has the individual's compensation been over time?
- 28. Was the employee underpaid in earlier years? Was it documented?
- 29. Is the greater part of compensation in the form of salary rather than bonuses?
- 30. When is compensation received—throughout the year, end of year to zero out income, or other timing?
- 31. Would an independent investor have approved the compensation?

Skills, Duties, and Responsibilities

- 32. What are the employee's qualifications?
- 33. What training, education, licensing, and experience are truly required?
- 34. Does the individual have a high level of education or specialized training?
- 35. Does the individual have much experience in the industry?
- 36. Is the individual a mentor?
- 37. Does the individual have excellent decision-making and strategic planning skills?

(continues)

Skills, Duties, and Responsibilities (continued)

- 38. Does the individual perform the duties of several positions (CFO, marketing director, personnel)?
- 39. Does the individual perform marketing and business-development duties?
- 40. Does the individual have good leadership skills?
- 41. Does the individual manage other employees?
- 42. Is the individual the company's face to the outside world?
- 43. Does the individual work long hours and have heavy workloads?
- 44. Does the individual handle diverse aspects of the business?
- 45. Have all duties of the individual been captured?
- 46. Does the individual operate with relatively low levels of staff support?
- 47. Does the job title of the individual compare to the job description?

Individual

- 48. Would the business flounder without the individual?
- 49. Does the individual possess unique technical, marketing, or innovation skills that would be difficult to replace?
- 50. Has the individual made identifiable contributions to the success of the company?
- 51. Does the individual's personality impact performance?
- 52. Does the individual guarantee the employer's debt?
- 53. What is the individual's degree of control of the business?
- 54. Does the individual have a length of service that demonstrates loyalty and commitment?
- 55. Would the individual be difficult to replace with someone having comparable experience and skills?

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CHECKLIST 8.34: REVENUE RULING 59-60: VALUATION CHECKLIST

Revenue Ruling 59-60 contains a wealth of information. This checklist presents the ruling in an easy-to-follow format.

The primary information concerning discounts and premiums is highlighted by an asterisk (*).

	1a. Purpose
	•
	Income tax (as amplified by Revenue Ruling 65-192)
	1b. Type of Subject Entity/Assets
	· · · · · · · · · · · · · · · · · · ·
	by Revenue Ruling 65-192)
	2. Background Definitions
Date o	of Valuation
	Date of death
	Alternate date (six months after date of death)
,	tion of Fair Market Value "The price at which the property would change hands between a willing buyer and a willing
_	seller when the former is not under any compulsion to buy and the latter is not under any
_	compulsion to sell, both parties having reasonable knowledge of relevant facts."
u	"The hypothetical buyer and seller are assumed to be able, as well as willing, to trade and to be well informed about the property and concerning the market for such property."
	wen informed about the property and concerning the market for such property.
	3. Approach to Valuation
	Facts and circumstances
	No general formula applicable Wide difference of opinion as to fair market value
	Valuation is not an exact science
	Sound valuation:
	Relevant facts
	☐ Common sense ☐ Informed judgment
	□ Reasonableness
	Future outlook:
	□ Value varies as general economic conditions change□ Optimism versus pessimism
	☐ Uncertainty as to the stability or continuity of future income
	☐ Risk of loss of earnings and value
	☐ Highly speculative value to very uncertain future prospects☐ Valuation is a prophecy as to the future
	Use of guideline public companies
	4. Factors to Consider
	e of the Business and History of the Enterprise from Inception Past stability or instability
	Growth or lack of growth
	*Diversity or lack of diversity of its operations

(continues)

4. Factors to Consider (continued) □ *Degree of risk in the business Study of gross and net income *Dividend history ☐ Nature of the business Products or services Operating and investment assets □ *Capital structure Plant facilities □ Sales records □ *Management ☐ Due regard for recent significant changes Discount events of the past that are unlikely to recur in the future Value has a close relation to future expectancy Recent events are of greatest help in predicting the future Economic Outlook in General and Condition and Outlook of the Specific Industry in Particular ☐ Current and prospective economic conditions ■ National economy Industry or industries ☐ More or less successful than its competitors; stable with competitors ☐ Ability of industry to compete with other industries ☐ Prospective competition ☐ Price trends in the markets for commodities and securities *Possible effects of a key person or thin management/lack of succession ☐ Effect of the loss of the manager on the future expectancy of the business *Key person life insurance could be partially offsetting Book Value of the Stock and the Financial Condition of the Business ☐ Two historical fiscal year-end balance sheets ☐ Balance sheet as of the end of the month preceding the valuation date *Liquid position (ratio of current assets to current liabilities) ☐ Gross and net book value of principal classes of fixed assets ■ Working capital □ Long-term indebtedness □ *Capital structure □ Net worth □ *Revalued nonoperating assets (i.e., investments in securities and real estate) on the basis of their market price ☐ Generally, nonoperating assets command lower rates of return Acquisitions of production facilities or subsidiaries ☐ Improvements in financial position □ *Recapitalizations □ *Changes in capital structure *Classes of stock □ *Examine charter or certificate of incorporation for rights and privileges of the various stock issues, including: ■ Voting powers Preference as to dividends ☐ Preference as to assets in the event of liquidation The Earning Capacity of the Company ☐ Preferably five or more years of detailed profit and loss statements ☐ Gross income by principal items ☐ Deductions from gross income: Operating expenses ☐ Interest and other expense on each item of long-term debt Depreciation and depletion *Officers' salaries in total if reasonable and in detail if they appear excessive

Contributions based on nature of business and its community position

□ Taxes

	4. Factors to Consider (continuea)
	*Distinguish between operating income and investment income Ascertain whether or not any line of business is operating consistently at a loss and might be abandoned with benefit to the company *Note percentage of earnings retained for business expansion when considering dividend-paying capacity
	*Primary consideration to dividend-paying capacity rather than dividends actually paid *Recognition of the necessity of retaining a reasonable portion of profits to meet competition *When valuing a controlling interest, the dividend factor is not a material element, since the payment of such dividends is discretionary with the controlling stockholders *The individual or group in control can substitute salaries and bonuses for dividends, thus reducing net income and understating the dividend-paying capacity of the company *Dividends are a less reliable factor for valuation than dividend-paying capacity therefore the Enterprise Has Goodwill or Other Intangible Value
,	Goodwill is based on earning capacity Goodwill value is based on the excess of net earnings over and above a fair return on the net tangible assets Factors to consider to support intangible value: Prestige and renown of the business Trade or brand name Record of success over a prolonged period in a particular locality Sometimes it may not be possible to make a separate valuation of tangible and intangible assets Intangible value can be measured by the amount that the value of the tangible assets exceeds the net book value of such assets
S	Prior sales should be arm's length Forced or distressed sales do not reflect fair market value Isolated sales in small amounts may not control as a measure of value *Blockage is not an issue since the stock is not publicly traded *Size of the block of stock is a relevant factor *A minority interest in an unlisted corporation's stock is more difficult to sell than a similar block of listed stock *Control of a corporation, either actual or in effect, may justify a higher value for a specific block of stock since it is an added element of value

4. Factors to Consider (continued)
t Price of Stocks of Corporations Engaged in the Same or a Similar Line of Business Having Their Actively Traded in a Free and Open Market, Either on an Exchange or Over-the-Counter
*Must be evidence of an active free public market for the stock as of the valuation date to be used as a comparable company Use only comparable companies The lines of business should be the same or similar
A comparable with one or more issues of preferred stock, bonds, or debentures in addition to its common stock should not be considered to be directly comparable to one having only common stock outstanding
A comparable with a declining business and decreasing markets is not comparable to one with a record of current progress and market expansion
5. Weight to Be Accorded Various Factors
Certain factors carry more weight than others because of the nature of the company's business Earnings may be the most important criterion of value in some cases, whereas asset value will receive primary consideration in others
Give primary consideration to earnings when valuing stocks of companies that sell products or services to the public
Give greatest weight to the assets underlying the security to be valued for investment or holding-type companies
Closely held investment or real estate holding company: Usual Value is closely related to the value of the assets underlying the stock
The appraiser should determine the fair market values of the assets of the company
*Operating expenses of such a company and the cost of liquidating it, if any, merit consideration
☐ The market values of the assets give due weight to potential earnings and dividends of the particular items of property underlying the stock, capitalized at rates deemed proper by the investing public at the valuation date
Adjusted net worth should be accorded greater weight in valuing the stock of a closely held investment or real estate holding company, whether or not it is family owned, than any of the other customary yardsticks of appraisal, such as earnings and dividend-paying capacity
6. Capitalization Rates
Capitalize the average or current results at some appropriate rate
One of the most difficult problems in valuation No ready or simple solution will become apparent by a cursory check of the rates of return and
dividend yields in terms of the selling price of corporate shares listed on the major exchanges Wide variations will be found even for companies in the same industry
The ratio will fluctuate from year to year depending upon economic conditions
No standard tables of capitalization rates applicable to closely held corporations can be
formulated *Important factors to consider:
☐ Nature of the business
□ Risk □ Stability or irregularity of earnings
- Stability of Hitgaranty of Carmings
7. Average of Factors
Valuations cannot be made on the basis of a prescribed formula There is no means whereby the various applicable factors in a particular case can be assigned

Valuations cannot be made on the basis of a prescribed formula
There is no means whereby the various applicable factors in a particular case can be assigned
mathematical weights to derive the fair market value
No useful purpose is served by taking an average of several factors (e.g., book value, capitalized
earnings, and capitalized dividends) and basing the valuation on the result
Such a process excludes active consideration of other pertinent factors, and the end result cannot

be supported by a realistic application of the significant facts in the case except by mere chance

8. Restrictive Agreements

Ш	"Where shares of stock were acquired by a decedent subject to an option reserved by the issuing
	corporation to repurchase at a certain price, the option price usually is accepted as the fair
	market value for estate tax purposes
	*The option price is not determinative of fair market value for gift tax purposes
	*Where the option or buy and sell agreement is the result of voluntary action by the stockholder
	and is binding during the life as well as at the death of the stockholders, such agreement may or
	may not, depending on the circumstances of each case, fix the value for estate tax purposes
	*Such restrictive agreements are a factor to be considered, along with other relevant factors, in
	determining fair market value
	*Where the stockholder is free to dispose of his shares during life and the option is to become
	effective only upon his or her death, the fair market value is not limited to the option price
	*Determine whether the agreement represents a bona fide business arrangement or is a device to
	pass the decedent's shares for less than an adequate and full consideration in money or money's
	worth:
	☐ Relationship of the parties
	☐ Relative number of shares held by the decedent
	☐ Other material facts

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CHECKLIST 8.35: REVENUE RULING 77-287: VALUATION CHECKLIST

Revenue Ruling 77-287 deals with the valuation of "restricted securities." These types of securities are also referred to as unregistered securities, investment letter stock, control stock, and private placement stock. A thorough understanding of this revenue ruling will also assist in determining discounts for lack of marketability (DLOM) in closely held companies.

1. Purpose
Amplifies Revenue Ruling 59-60 Valuation of securities that cannot be resold because they are restricted from resale pursuant to federal securities laws
2. Nature of the Problem
Valuation of stock that has not been registered for public trading when the issuing company has
stock of the same class that is actively traded in the securities markets
Determine the difference between the fair market value of the registered actively traded shares versus the unregistered shares of the same company
For estate and gift tax as well as when unregistered shares are issued in exchange for assets or the stock of an acquired company
3. Background and Definitions
Restricted securities cannot lawfully be distributed to the general public until a registration statement relating to the corporation underlying the securities has been filed and has become effective under the rules of the SEC and federal securities laws.
Restricted securities: Defined in Rule 144 as "securities acquired directly or indirectly from the issuer thereof, or from an affiliate of such issuer, in a transaction or chain of transactions not involving any public offering."
<i>Unregistered securities:</i> Securities where a registration statement, providing full disclosure by the issuing corporation, has not been filed with the SEC pursuant to the Securities Act of 1933. The registration statement provides the prospective investor with a factual basis on which to make a investment decision.
Investment letter stock: Also called letter stock. Shares of stock issued without SEC registration. The stock is subject to resale and transfer restrictions set forth in a letter of agreement requested by the issuer and signed by the buyer. Such stock may be found in the hands of individual or institutional investors.
Control stock: The stock is held by an officer, director, or other person close to corporate management. These people are subject to certain requirements pursuant to SEC rules upon resale of shares they own in such corporations.
Private placement stock: The stock has been placed with an institution or other investor who will presumably hold it for a long period and ultimately arrange to have the stock registered if it is to be offered to the general public. This stock may or may not be subject to a letter agreement. Private placements are exempted from the registration and prospectus provisions of the Securities Act of 1933.
Exempted securities: Expressly excluded from the registration provisions of the Securities Act of
1933 and the distribution provisions of the Securities Exchange Act of 1934.
Exempted transactions: Certain sales or distributions that do not involve a public offering and are excluded from the registration and prospectus provisions of the 1933 and 1934 Acts. Issuers do not have to go through the registration process.
4. Securities Industry Practice in Valuing Restricted Securities
Investment company valuation practices: ☐ Open-end investment companies must publish the valuation of their portfolios on a regular basis

☐ Many own restricted and unrestricted securities of the same companies

		4. Securities Industry Practice in Valuing Restricted Securities (continued)	
		aluation methods: Market price of unrestricted publicly traded stock less a constant percentage discount based on purchase discount Market price of unrestricted publicly traded stock less a constant percentage discount different from purchase discount	
		Market price of unrestricted publicly traded stock less a discount amortized over a fixed period Market price of the unrestricted publicly traded stock	
		Cost of the restricted stock until it is registered	
	The S	EC stated that there are no automatic formulas EC has determined that it is the responsibility of the board of directors of the particular ment company to determine the "fair value" of each issue of restricted securities in	
	good		
Institu	ıtional	Investors Study	
	instit	The SEC undertook an analysis of the purchases, sales, and holding of securities by financial institutions Published in March 1971	
		les an analysis of restricted securities	
		d of study is January 1, 1966, through June 30, 1969	
		acteristics of the restricted securities purchasers and issuers	
		ize of transactions in both dollars and shares etability discounts on different trading markets	
		e provisions	
	The a	mount of discount allowed for restricted securities from the freely traded public price of prestricted securities was generally related to the following factors:	
	Earnings		
		 Earnings and sales have significant influence on the size of the discounts Earnings patterns rather than sales patterns determine the degree of risk of an investment 	
	Sales		
		The dollar amount of sales of the issuers' securities also has a major influence on the amount of discounts	
		Generally, companies with the lowest dollar amount of sales during the period accounted for most of the transactions involving the highest discounts while they accounted for the lowest number that involved the lowest discounts	
		ng Market	
		Higher discounts for over-the-counter, followed by the American Stock Exchange, then the New York Stock Exchange	
		e Agreement Provisions	
		The discount from market price provides the main incentive for a potential buyer to acquire restricted securities	
		Two factors are important in judging the opportunity cost of freezing funds in a restricted security:	
		☐ The risk that the underlying value of the stock will change in a way that, absent the	
		restrictive provisions, would have prompted a sale	
		☐ The risk that the contemplated means of legally disposing the stock may not materialize	
		Seller may be relieved of the expenses of registration and public distribution as well as the risk that the market will adversely change before the offering is completed	
		Most common provisions are: ☐ Option for "piggyback" rights to register restricted stock with the next registration	
		statement, if any, filed by the issuer with the SEC Option to require registration at the seller's expense	
		Option to require registration but only at the buyer's own expense	

(continues)

	4. Securities Industry Practice in Valuing Restricted Securities (continued)
	 Right to receive continuous disclosure of information about the issuer from the selled Right to select one or more directors of the issuer Option to purchase additional shares of the issuer's stock Provision giving the buyer the right to have a greater voice in operations of the issuer, if the issuer does not meet previously agreed-upon operating standards Institutional buyers often obtain these rights from sellers of restricted stocks The more rights a buyer can acquire, the lower the buyer's risk, thus the lower the buyer's discount Small buyers may not be able to negotiate the large discounts or the rights and options that the volume buyers are able to negotiate Summary A variety of methods have been used by the securities industry to value restricted securities The SEC rejects all automatic or mechanical solutions to the valuation of restricted securities The SEC prefers to rely upon good-faith valuations by the board of directors of each company An SEC study found that restricted securities generally are issued at a discount from the market value of freely traded securities
	5. Facts and Circumstances Material to the Valuation of Restricted Securities
_	investment letter restrictions
	, 0
	agreement restriction The following documents and facts, when used in conjunction with those discussed in section IV of Revenue Ruling 59-60, are useful in the valuation of restricted securities: Any declaration of trust agreement or any other agreements relating to the shares of restricted stock Any documents showing any offers to buy or sell or indications of interest in buying or selling the restricted shares Latest company prospectus Three to five years of annual reports Trading prices and trading volume and the related class of traded securities one month preceding the valuation date The relationship of the parties to the agreements concerning the restricted stocks, such as whether they are members of the immediate family or whether they are officers or directors of the company Whether the interest being valued represents a majority or minority ownership
	6. Weighing Facts and Circumstances Material to Restricted Stock Valuation
	For manufacturing, producing, or distributing companies, primary weight must be accorded earnings and net sales
	Careful review of resale provisions found in restricted agreements The two elements of time and expense should be reflected in a discount The longer the buyer of the shares must wait to liquidate the shares, the greater the discount If certain provisions make it necessary for the buyer to bear the expense of registration, the discount is greater
	onarco or the next onering, the discount would be siliallel

6. Weighing Facts and Circumstances Material to Restricted Stock Valuation (continued) The relative negotiating strengths of the buyer and seller of restricted stock A tight money situation may cause a buyer to have more negotiating strength In some cases, the relative strengths may tend to cancel each other The market experience of freely tradable securities of the same class as restricted securities is also significant Whether the shares are privately held or publicly traded Securities traded on a public market generally are worth more to investors than those not traded on a public market The type of public market in which the unrestricted securities are traded can be given consideration

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CHECKLIST 8.36: REVENUE RULING 93-12: VALUATION CHECKLIST

The IRS revoked Revenue Ruling 81-253, which applied family attribution to determine control when valuing minority interests in closely held companies. After Revenue Ruling 81-253 was issued, the IRS lost a majority of the court cases concerning family attribution.

Revenue Ruling 93-12 states that a minority discount on stock transferred to a family member will not be challenged solely because the transferred interest, when aggregated with interests held by other family members, will be a part of a controlling interest. This ruling arose from a gift tax case.

	members, will be a part of a controlling interest. This raining arose from a girt tax case.		
	1. Issue		
	If a donor transfers shares in a corporation to each of the donor's children, is the factor of corporate control in the family to be considered in valuing each transferred interest?		
	2. Facts		
	Taxpayer owned all the shares of stock of a corporation Taxpayer made simultaneous gifts of 20 percent blocks of stock to each of five children		
	3. Law and Analysis		
	The value of the property at the date of the gift shall be considered the amount of the gift The value of the property is the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell, and both having reasonable knowledge of relevant facts		
	Fair market value on the date of the gift Among the factors to be considered is the degree of control of the business being represented by the block of stock to be valued		
	Revenue Ruling 81-253, 1981-1 C.B. 187 holds that, ordinarily, no minority shareholder discount is allowed with respect to transfers of shares of stock between family members if, based on a composite of the family members' interests at the time of the transfer, control (either majority voting control or de facto control through family relationships) of the corporation exists in the family unit		
	Revenue Ruling 81-253 states that the Internal Revenue Service will not follow the decision in the 1981 case <i>Estate of Bright v. United States</i>		
	In <i>Bright</i> , the court allowed a 27.5 percent interest to be valued as a minority interest, even though the shares were to be held by the decedent's surviving spouse		
	Propstra v. United States (1982), Estate of Andrews v. Commissioner (1982), and Estate of Lee v. Commissioner (1978). These cases held that the corporations' shares owned by other family members cannot be attributed to an individual family member for determining whether the individual family member's share should be valued as a controlling interest of the corporation		
	The IRS has concluded, in the case of a corporation with a single class of stock, notwithstanding the family relationship of the donor, the donee, and other shareholders, the shares of other family members will not be aggregated with the transferred shares to determine whether the transferred shares should be valued as part of a controlling interest. The five 20 percent interests that were gifted should be valued without regard to the family		
	relationship of the parties		
4. Holding			
	If a donor transfers shares in a corporation to each of the donor's children, the factor of corporate control in the family is not considered in valuing each transferred interest		
	The IRS will follow <i>Bright</i> , <i>Propstra</i> , <i>Andrews</i> , and <i>Lee</i> in not assuming that all voting power held by family members may be aggregated as part of a controlling interest		
	A minority discount will not be disallowed solely because a transferred interest, when aggregated with interests held by family members, will be part of a controlling interest		
	This will be the case whether the donor held 100 percent or some lesser percentage of the stock		

immediately before the gift

5. Effect on Other Documents

☐ Revenue Ruling 81-253 is revoked

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CHECKLIST 8.37: WORK PROGRAM

Subject Entity	Purpose of Valuation/Calculation	Valuation Date
Analyst/Date Completed	Principal/Date Reviewed	Estimated Due Date

The purpose of this Work Program is to provide guidance to the analyst throughout the engagement in completing the project. As the analyst completes each major section of the engagement, that portion of the assignment should be forwarded to the principal for review. *Persons responsible for each function are noted in each section below.*

Completed	Date		
			Planning—Principal
		1.	Review and acceptance of the engagement letter.
		2.	Determine appropriate checklists (SSVS or other) to use to ensure that engagement is in compliance with applicable standard(s).
		3.	Identify critical valuation/calculation issues in consultation with principal.
		4.	Determine the file organization and sections.
		5.	Request information from client (submit VIR).
		6.	Establish target dates for key elements of the assignment, including the target report release date.
		7.	Identify/set up report template.
		8.	Identify/set up exhibit template(s).
			Data Received—Principal and/or Analyst
		9.	Determine if the appropriate data have been received.
		10.	Review inventory; update information request.
		11.	Update inventory.
			Financial Statement Analysis—Analyst
		12.	Spread/enter financial information.
		13.	Determine relevant SIC/NAICS code and industry data.
		14.	Verify accuracy of financial input.
		15.	Perform and document financial analysis, including rationale for judgment areas.
		16.	Perform and document management interview (Principal responsibility).
			Market Research—Analyst
		17.	Research economic and industry outlooks.
		18.	Search for guideline companies and or external transactions.
		19.	Determine and document acceptance of guideline companies.
		20.	Gather information on guideline companies and/or external transactions.

Completed	2		
Ő	Date		
			Guideline Public Companies—Analyst
		21.	Spread/enter guideline public company financial information.
		22.	Verify accuracy of input.
		23.	Analyze financial ratios and determine final pricing ratios.
		24.	Finalize value conclusion/calculation.
			Guideline Company Transactions—Analyst
		25.	Spread/enter guideline transaction information.
		26.	Verify accuracy of input.
		27.	Analyze financial ratios and determine final pricing ratios.
		28.	Finalize value conclusion/calculation.
			Asset-Based Approach—Analyst
		29.	Determine assets and liabilities to be restated.
		30.	Obtain appraisals performed by other appraisers.
		31.	Obtain client representations, etc.
		32.	Verify accuracy of input.
		33.	Finalize value conclusion/calculation.
			Income Approach—Analyst
		34.	Develop the discount rate and/or capitalization rate; document rationale.
		35.	Normalize the financial statements, if appropriate.
		36.	Develop ongoing earnings base and/or projections; document rationale.
		37.	Verify accuracy of input.
		38.	Finalize value conclusion/calculation.
		39.	Control premium, discount for lack of marketability, discount rate, etc.
		40.	Value indicator and weight of each.
		41.	Determine final value conclusion/calculation.
		1	Allocation of Intangible Assets—see separate Work Program for Intangibles Report Narrative—Analyst and Principal
		42.	Prepare Draft Report.
		43.	Complete Review Report and Math.
		44.	Complete final review of report after draft changes are processed.
			Initial Gold Sheet in appropriate areas.

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CHECKLIST 8.38: SSVS VS SECTION 100 COMPLIANCE CHECKLIST—VALUATION ENGAGEMENT

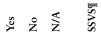
To Be Used in Conjunction with SSVS Compliance Flowchart

Business Name	Subject Interest	Valuation Date	
Valuation Purpose	Standard of Value	Premise of Value	
Analyst (sign and date)	Manager (sign and date)	Principal (sign and date)	

This checklist assists the valuation analyst so that:

- Their work is in compliance with the American Institute of Certified Public Accountants' (AICPA)
 Statement on Standards for Valuation Services VS Section 100 (SSVS). This checklist must be used
 in conjunction with the SSVS Compliance Flowchart and SSVS in order to provide more confidence
 that SSVS requirements are met.
- 2. The working papers support the valuation conclusion(s) or calculation(s).

All "No" or "N/A" answers should be individually explained in the space provided on the last page of this checklist.



INTRODUCTION AND SCOPE

		Scope
	¶.01, .04.	Does the assignment cause the valuation analyst (analyst) to estimate the value of a business, business ownership interest, security, or intangible asset (subject interest) by applying valuation approaches/methods while using professional judgment in applying those approaches/methods? (This question applies whether the assignment is a valuation engagement or an analysis that is part of a larger engagement.)
	¶.03.	Has the analyst considered the applicable government regulations and other professional standards applicable to the engagement?
		Exceptions from SSVS
	¶.05.	Valuation estimate is part of an attest engagement (as defined by the "Independence Rule" of the AICPA Code of Professional Conduct), such as an audit, review, or compilation of financial statements.
	¶.06.	Value of subject interest was provided by client or third party and valuation approaches/methods are not applied by the analyst.
	¶.07.	This is an internal use assignment between employer and employee not in public accounting practice, as defined in the AICPA Code of Professional Conduct (ET Sec. 0.400.42).
	¶.08.	This engagement is to exclusively determine economic damages (e.g., lost profits), but not to estimate value.
	¶.09.	The valuation estimate is a result of a mechanical computation (i.e., valuation approaches/methods and professional judgment are not used).
	¶.09.	It's not practical or not reasonable to obtain or use relevant information (i.e., can't apply valuation approaches and methods).

Yes	No.	N/A	₿SASS	
				Jurisdictional Exception
			¶.10.	Jurisdictional Exception*—SSVS differs from published governmental, judicial, or accounting authority, or such authority specifies valuation development procedures or valuation reporting procedures. * Comply with relevant standard(s) for that portion(s) of the engagement; SSVS applies to remaining section(s).
				OVERALL ENGAGEMENT CONSIDERATIONS
P	rofes	sional	Compete	ency (AICPA Code of Professional Conduct E.T. Sec. 1.300.101 and 2.300.001)
				Analyst or analyst's firm can reasonably expect to provide services with professional competence that involve special knowledge and skill so that analyst can: identify, gather and analyze data; consider/apply appropriate approaches/methods; use professional judgment to estimate value.
			¶.12.	Did the analyst consider:
				a) The subject entity and its industry
				b) Subject interest
	_			c) Valuation date
				d) Scope of valuation engagement:
				i) Purpose of valuation engagement
				ii) Assumptions and limiting conditions (¶.18)
				iii) Standards of value and premise of value
				iv) Type of report to be issued; intended use and users of the report; restrictions on the use of the report (¶.48)
				e) If governmental regulations or other professional standards apply to subject interest or engagement
			Assess	Nature and Risk of Valuation Services and Client Expectations
			¶.13.	Did the analyst consider:
				a) Proposed terms of the engagement
				b) Identity of client
				c) Nature and ownership rights in the subject interest; control characteristics; degree of marketability
				d) Procedural requirements and the extent, if any, to which procedures will be limited by either the client, or circumstances beyond the client's or the analyst's control
				e) The use and limitations of the report and the conclusion of value
				f) Any obligation to update the valuation
				Objectivity and Conflict of Interest
			¶.14.	Was the analyst objective and did s/he understand the obligation to be impartial, intellectually honest, disinterested, and free from conflicts of interest?
			•	Did the analyst disclose any potential conflict of interest and obtain consent as required under AICPA "Conflicts of Interest" Interpretation E.T. Sec. 1.110.010 and 2.110.010?
				Independence and Valuation
			¶.15.	Did the analyst meet the requirements included in the interpretations of the "Non Attest Services" subtopic (E. T. Sec. 1.295) under the "Independence Rule" (E. T. Sec. 1.200.001) if valuation services are performed for a client for which an attest engagement is also performed by the valuation analyst/firm?

Yes	Š	N/A	BSASS	
				Establish an Understanding with the Client
			¶.16.	Is the understanding with the client documented either in writing or, if oral, in the analyst's file or working papers?
				If applicable, did the analyst modify the understanding if a modification is encountered?
			¶.17.	At a minimum, obtain an understanding between the valuation analyst and the client regarding:
				Nature, purpose and objective of the engagement
				Client's responsibilities
				Valuation analyst's responsibilities
				Applicable assumptions and limiting conditions (¶.18)
				Type of report
				Standard of value
				Assumptions and Limiting Conditions
			¶.18.	Did the analyst disclose the assumptions and limiting conditions in the valuation report as provided in SSVS Appendix A?
				Scope Restrictions and Limiting Conditions
			¶.19.	Did the analyst discuss any restrictions or limitations on the scope of the analyst's work or data available to the analyst known at the time?
				Work of Specialist(s)
			¶.20.	Did the analyst note in the assumptions and limiting conditions the level of responsibility, if any, assumed by the analyst for the work of the third-party specialist(s)?
			-	Did the analyst consider the option of including the report of the third-party specialist in his/her valuation report?
				DEVELOPMENT—VALUATION ENGAGEMENT
				Determine Type of Engagement: Valuation or Calculation
				Establish with the client whether the engagement is a valuation or calculation engagement.
			¶.21a.	Was the analyst free to apply the valuation approaches and methods s/he deems appropriate in the circumstances?
				Hypothetical Conditions
			or 22	
				Did the analyst use any hypothetical conditions? If so, did the analyst indicate the purpose for including the hypothetical
_				condition(s) and discuss these conditions in the report?
			Conducti	ng a Valuation Engagement: Obtaining and Analyzing Information
			¶.23.	In performing the valuation engagement, did the analyst:
				Analyze the subject interest
				Consider and apply appropriate valuation approaches and methods
				Prepare and maintain appropriate documentation
			¶.24.	Did the analyst choose his or her own sequence for the requirements and guidance in the standards?
			¶.25.	Did the analyst consider the analysis of the subject interest, including, at a minimum:

Yes	No	N/A	BSASS	
		Cond	ucting a V	'aluation Engagement: Obtaining and Analyzing Information (continued)
				Nature of the subject interest
				Scope of the valuation engagement
				Valuation date
				Intended use of the valuation
				Applicable standard of value
				Applicable premise of value
				Assumptions and limiting conditions
				Applicable governmental regulations or other professional standards
			¶.26.	Did the analyst consider the financial and nonfinancial information, including the type, availability, and significance of such information
			¶.27.	Did the analyst, as available and applicable, obtain sufficient nonfinancial information to understand the subject entity, including its:
				Nature, background, and history
				Facilities
				Organizational structure
				Management team
				Classes of equity ownership interests and rights attached thereto
				Products and/or services
				Economic environment
				Geographical markets
				Industry markets
				Key customers and suppliers
				Competition
				Business risks
				Strategy and future plans
				Governmental or regulatory environment
			¶.28.	Did analyst obtain, where applicable and available, sufficient ownership information to:
				Determine type of ownership interest being valued and whether the interest exhibits control characteristics
				Analyze different ownership interests of other owners and assess potential effect on value of subject interest
				Understand classes and rights attached to the company's equity
				Understand rights included in, or excluded from, each intangible asset
				Understand other matters that may affect the value of the subject interest, such as:
				For a business, business interest, or security: relevant agreements such as shareholder agreements, partnership agreements, operating agreements, voting trust agreements, buy-sell agreements, loan covenants, restrictions, and any other contractual obligations or restrictions affecting the owners and the subject interest.
				For an intangible asset: legal rights, licensing and sublicensing agreements, nondisclosure agreements, developmental rights, commercialization or exploitation rights, and other contractual obligations.

Yes	Š		SSVS	
		Cond	lucting a V	aluation Engagement: Obtaining and Analyzing Information (continued)
			¶.29.	Did the analyst obtain, where appropriate and available, financial information on the subject interest such as:
				Historical annual/interim financial statements; key ratios, statistics
				Prospective financial information (e.g., budgets, forecasts, projections)
				Comparative summaries of financial statements or information for a relevant period
				Comparative common size financial statements/information of the entity and for the industry for an appropriate/relevant number of years
				Income tax returns for an appropriate/relevant number of years
				Owner compensation, including benefits and personal expenses
				Key person or officers' life insurance
				Management's response to inquiry regarding:
				 Advantageous or disadvantageous contracts
				■ Contingent or off-balance-sheet assets or liabilities
				■ Information on prior sales of company stock
			¶.30.	Did analyst read and evaluate the information to determine that it is reasonable for the purposes of the engagement?
			Conduct	ing a Valuation Engagement: Valuation Approaches and Methods
				Did the analyst consider the three most common valuation approaches (i.e., income, asset/cost, and market)?
			¶.32.	Did the analyst use the valuation approaches and methods that are appropriate for the valuation engagement?
			¶.33a.	Did the analyst use the capitalization of benefits method (income approach); if so, consider:
				Normalization adjustments
				Nonrecurring revenue and expense items
				Taxes
				Capital structure and financing costs
				Appropriate capital investments
				Noncash items
				Qualitative judgments for risks used to compute discount and capitalization rates
				Expected changes (growth or decline) in future benefits
			¶.33b.	Did the analyst use the discounted future benefits method (income approach); and, if so, consider:
				Normalization adjustments
				Nonrecurring revenue and expense items
				Taxes
				Capital structure and financing costs
				Appropriate capital investments
				Noncash items
				Qualitative judgments for risks used to compute discount and capitalization rates
				Expected changes (growth or decline) in future benefits
				Forecast/projection assumptions
				Forecast/projected earnings or cash flows
				Terminal value

Yes	No	N/A	BSASS						
	Conducting a Valuation Engagement: Valuation Approaches and Methods (continued)								
			¶.33c.	For an intangible asset, did the analyst also consider, when relevant:					
				Remaining useful life					
				Current and anticipated future use of intangible asset					
				Rights attributable to the intangible asset					
				Position of intangible asset in its life cycle					
				Appropriate discount rate for the intangible asset					
				Appropriate capital or contributory asset charge, if any					
				Research and development or marketing expense needed to support the intangible asset in its existing state					
				Allocation of income (e.g., incremental, residual, or profit split income) to intangible asset					
				Whether any tax amortization benefit would be included					
				Discounted multiyear excess earnings					
				Market royalties					
				Relief from royalty					
			¶.34.	Did the analyst use the Adjusted Net Asset Method (Asset/Cost Approach) and consider, as appropriate, the following information related to the premise of value:					
				Identification of the assets and liabilities					
				Value of assets and liabilities (individually or in the aggregate)					
				Liquidation costs (if applicable)					
			¶.35.	Did the analyst use the Cost Approach to value intangible assets and consider:					
				Type of cost to use (e.g., reproduction or replacement cost)					
				Appropriate depreciation/obsolescence, where applicable					
				Remaining useful life, where applicable					
			¶.36.	Did the analyst consider the Market Approach to value a business, business ownership interest, or security?					
				Guideline public company method					
				Guideline company transactions method					
				Guideline sales of interest in the subject entity					
			¶.36.	Did the analyst use the Market Approach to value intangible assets?					
				Comparable uncontrolled transactions method (uses arm's-length sales or licenses of guideline intangible assets)					
				Comparable profit margin method (compare profit margin earned by the subject entity that owns or operates the intangible asset to profit margins earned by guideline companies)					
				Relief from royalty method (the royalty rate, often expressed as a percentage of revenue, the subject entity would be obligated to pay to hypothetical third-party licensor for use of intangible asset)					
				When valuing intangible assets and using a method that relies on guideline intangible assets, consider the remaining useful life of the subject intangible asset and those of the guideline intangible assets, if available					
			¶.37.	In determining valuation pricing multiples or metrics when using the market approach, did the analyst consider:					
				Qualitative and quantitative comparisons					
				Arms-length transactions and prices					
				Dates and relevance of the market data					
			¶.38.	Did analyst set forth in the report the rationale and support for valuation methods used?					

(continues)

Yes	S _o	N/A	BSASS	
		Condu	cting a V	aluation Engagement: Obtaining and Analyzing Information (continued)
			¶.39.	Did the analyst use a rule of thumb (technically not a valuation method) to estimate the value of the subject interest?
			•	As is typical, did the analyst use a rule of thumb as a reasonableness check against other methods and not use it as the only method?
			C	onducting a Valuation Engagement: Valuation Adjustments
			¶.40.	Did the analyst appropriately consider the following adjustments to a pre- adjustment value, when valuing a business, business ownership interest, or security?
		<u> </u>		Discount for lack of marketability or liquidity Discount for lack of control
		ū		If the analyst valued an intangible asset, was an adjustment for obsolescence considered?
			¶.41.	When valuing a controlling ownership interest under the income approach, did the analyst properly consider and separately value and add to or delete from the value of the operating entity the:
				Value of any nonoperating assets
				Value of any nonoperating liabilities
				Value of any excess or deficient operating assets
				When valuing a noncontrolling ownership interest under the income approach, did the analyst properly consider whether the following should be separately valued depending on an assessment of the influence exercisable by the noncontrolling interest, the:
				Value of any nonoperating assets
				Value of any nonoperating liabilities
				Value of any excess or deficient operating assets
				When using the asset-based or cost approach, did the analyst understand that it may not be necessary to separately consider and add back or delete from the value any nonoperating assets, nonoperating liabilities, or excess or deficient operating assets?
			(Conducting a Valuation Engagement: Conclusion of Value
			¶.42.	In arriving at conclusion of value, did the analyst:
			a	Correlate and reconcile results obtained under different approaches and methods used
			b	Assess the reliability of results under different approaches and methods using the information gathered during the valuation engagement
			c	Determine, based on a and b , whether the conclusion of value should reflect the results of one valuation approach and method or reflect a combination of results of more than one valuation approach and method
				Conducting a Valuation Engagement: Subsequent Events
			¶.43.	Did the analyst consider:
			•	The valuation date is the specific date at which the analyst estimates the value of the subject interest and concludes on his/her estimate of value
				Only circumstances existing at the valuation date and events occurring up to the valuation date

Yes	No	N/A	⊪s∧ss	
			Cond	ucting a Valuation Engagement: Subsequent Events (continued)
			•	That subsequent events are indicative of conditions that were not known or knowable at the valuation date, including conditions that arose subsequent to the valuation date
				That the valuation would not be updated to reflect those events or conditions
			•	That the valuation report would typically not include a discussion of those events or conditions because a valuation is performed as of a point in time—the valuation date—and the events described in this subparagraph ($\P.43$), occurring subsequent to that date, are not relevant to the value determined as of that date
			•	That in situations in which a valuation is meaningful to the intended user beyond the valuation date, the events may be of such nature and significance as to warrant disclosure (at the option of the valuation analyst) in a separate section of the report in order to keep users informed ($\P.52p,71r$, and 74)
			•	That such disclosure should clearly indicate that information regarding the events is provided for informational purposes only and does not affect the determination of value as of the specified valuation date
				Documentation
			¶.44.	Did the analyst prepare and retain appropriate records (based on analyst's professional judgment) to document the information obtained and analyzed, procedures performed, valuation approaches/methods considered and used, and the conclusion of value, such as:
				Information gathered and analyzed to obtain an understanding of matters that may affect the value of the subject interest ($\P.25-\P.30$)
				Assumptions and limiting conditions (¶.18)
			•	Any scope restriction or scope limitation on the analyst's work or data available ($\P.19$)
				Basis for using any valuation assumption during valuation engagement
				Valuation approaches and methods considered
			•	Valuation approaches and methods used, including rationale and support for their use
				If applicable, information on subsequent events considered by the analyst ($\P.43$)
				If rule of thumb(s) was/were used, the source of data, and how the rule was applied ($\P.39$)
				Other engagement documentation considered relevant by the analyst
			¶.45.	Did the analyst retain (or intends to retain) documentation for a sufficient time to meet the needs of the applicable legal, regulatory, or other professional requirements for records retention?
			¶.46.	Did analyst consider obtaining written representations from management regarding information provided to analyst?

(continues)

Expla	nation of "No" or "N/A" Answers
¶. No.	Explanation

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CHECKLIST 8.39: SSVS VS SECTION 100 COMPLIANCE CHECKLIST—DETAILED REPORT (VALUATION ENGAGEMENT)

To Be Used in Conjunction with SSVS Compliance Flowchart

Business Name	Subject Interest	Valuation Date	
Valuation Purpose	Standard of Value	Premise of Value	
Analyst (sign and date)	Manager (sign and date)	Principal (sign and date)	

This checklist assists the valuation analyst so that:

- Their work is in compliance with the American Institute of Certified Public Accountants' (AICPA)
 Statement on Standards for Valuation Services VS Section 100 (SSVS). This checklist must be used in conjunction with the SSVS Compliance Flowchart and SSVS in order to provide more confidence that SSVS requirements are met.
- 2. The working papers support the valuation conclusion(s) or calculation(s).

All "No" or "N/A" answers should be individually explained in the space provided on the last page of this checklist.

Yes	Ž	N/A	SSV	REPORTING GUIDELINES
				The Valuation Report
			¶.47.	Does the analyst understand that a valuation report is a written or oral communication to the client containing the conclusion of value or the calculation of value of the subject interest?
			¶.48.	Does the analyst understand that there are three types of written reports that an analyst may use to communicate the results of an engagement to estimate value: for a valuation engagement, a detailed report or a summary report; and for a calculation engagement, a calculation report (each of these reports has a separate checklist; please refer to that checklist for additional requirements)?
			¶.48a.	Does the analyst understand that a detailed report may be used only to communicate the results of a valuation engagement (conclusion of value); it should not be used to communicate the results of a calculation engagement (calculated value; ¶.51)?
			•	Does the analyst understand that, for a valuation engagement, the determination of whether to prepare a detailed report or a summary report is based on the level of reporting detail agreed to by the analyst and the client?
			¶.49.	Did the analyst indicate in the valuation report the restrictions on the use of the report (which may include restrictions on the users of the report, the uses of the report by such users, or both)?

(continues)

Yes	No	N/A	⊪ sass	
				Reporting Exemption
			¶.50.	Does the SSVS reporting exemption for certain controversy proceedings apply to the engagement?
			-	Does the analyst understand that:
				■ A valuation performed for a matter before a court, an arbitrator, a mediator, or other facilitator, or a matter in a governmental or administrative proceeding is exempt from SSVS reporting provisions?
				■ That the reporting exemption applies whether the matter proceeds to trial or settles?
				■ That the exemption applies only to the SSVS reporting provisions and that the developmental provisions of SSVS still apply?
				Detailed Report: Valuation Engagement
				Does the analyst understand that a detailed report is structured to provide sufficient information to permit intended users to understand the data, reasoning, and analyses underlying the analyst's conclusion of value? A detailed report should include, as applicable, the following sections titled using wording similar in content to that shown below:
			_	Letter of transmittal
				Table of contents
				Introduction (see ¶.52 below)
				Sources of information (see ¶.53 below)
			•	Analysis of the subject entity and related nonfinancial information (see ¶.57 below)
				Financial statement/information analysis (see ¶.58 below)
				Valuation approaches and methods considered (see ¶.60-¶.62 below)
				Valuation approaches and methods used
				Valuation adjustments (see ¶.63 below)
				Nonoperating assets, nonoperating liabilities, and excess or deficient operating assets, if any (see ¶.64 below)
				Representation of the valuation analyst (see ¶.65 below)
			-	Reconciliation of estimates and conclusion of value (see ¶.68 below)
				Qualifications of the valuation analyst (see ¶.67 below)
				Appendices and exhibits
				Does the analyst understand that the above-listed report sections and detailed information within the sections described in $\P.52$ – $\P.77$ may be positioned in the body of the report or elsewhere in the report at the discretion of the valuation analyst?
			¶.52.	Does the report include an introduction that provides an overall description of the valuation engagement and contains sufficient information to enable the intended user(s) to understand the nature and scope of the valuation engagement, as well as the work performed, and may include, among other things, the following information (Note: If items below are not included in the introduction, they should be included elsewhere in the report):
				a) Identity of the client
				b) Purpose and intended use of the valuation
				c) Intended users of the valuation

Yes	Š	N/A	SASS	
				Detailed Report: Valuation Engagement (continued)
				d) Identity of the subject entity
				e) Description of the subject interest
				f) Ownership control characteristics and degree of marketability of the business
				interest
				g) Valuation date
				h) Report date
				i) Type of report issued (i.e., detailed report)
				j) Applicable premise of value
				k) Applicable standard of value
				1) Assumptions and limiting conditions (could also be in an appendix) (¶.18)
				m) Restrictions or limitations in scope of work or data available for analysis (¶.19)
				 n) Hypothetical conditions used in valuation engagement, including basis for their use (¶.22)
				o) Describe how any specialist's work was relied upon, if any (¶.20)
				p) Disclose subsequent events in certain circumstances (¶.43)
				q) Any application of the jurisdictional exception (¶.10)
				r) Any additional information the analyst deems useful to enable the user(s) of the report to understand the work performed
				Does the report include a section(s) that identifies the relevant sources of information used in performing the valuation engagement, and may include the following:
				a) For a business, business interest, or security, a section stating whether and to what extent the subject entity's facilities were visited
				b) For an intangible asset, whether legal registration, contractual documentation, or other tangible evidence of the asset was inspected
				c) Names, positions, titles of persons interviewed and their relationships to the subject interest
				d) Financial statements and information (¶.54 and ¶.56)
				or financial statements that were reported on (e.g., audit, review, compilation, or attest) by the analyst's firm, the report should disclose this fact and the type of report(s) issued.
				• For financial statements that were not reported on by the analyst's firm, the report should disclose this fact and state the analyst assumes no responsibility for the financial information.
				■ For financial statements prepared by management and not audited, reviewed, compiled, or otherwise attested to by the analyst, identify the financial statements, state the analyst did not audit, review, compile, or attest under the AICPA's SSAEs, and the analyst assumes no responsibility for that information.
				e) Tax information (¶.55)
				• For tax returns used by the analyst to obtain any information used in the valuation analysis, identify the tax returns used and any existing relationship between the analyst and the tax preparer.
				■ For tax returns used by the analyst to obtain any information in the valuation analysis, if the analyst or analyst's firm did not audit, review, compile, or attest under AICPA's SSAEs to any financial information derived from the tax returns used in the valuation analysis, the report should state this fact and that the analyst assumes no responsibility for that information.

Yes	No	N/A	⊪ sass	
				Detailed Report: Valuation Engagement (continued)
				f) Industry data
				g) Market data
				h) Economic data
				i) Other empirical information
				j) Relevant documents and other sources of information provided by or related to the entity
		Aı	nalysis of	f the Subject Entity and Related Nonfinancial and Financial Information
			¶.57.	Description of the relevant nonfinancial information used in the analysis (¶.27)
			¶.58.	Description of the relevant financial information used in the analysis (¶.29). Description may include:
			-	Rationale underlying any normalization or control adjustment to financial information
				Comparison of current performance with historical performance
				Comparison of performance with industry trends and norms, where available
				Detailed Report—Valuation Approaches and Methods Used
			¶.59.	Valuation approaches/methods considered (¶.31)
			¶.60.	Did the analyst identify valuation methods used under each approach and the rationale for their use?
			¶.61a.	If the income approach was used, identify:
				Composition of representative benefit stream
				Method(s) used and summary of most relevant risk factors considered in selecting appropriate discount rate, capitalization rate, or both
			-	Other factors (see ¶.33)
			¶.61b.	If the asset-based approach was used, describe any adjustments made by the analyst to balance sheet data.
			¶.61b.	If the cost approach was used, describe:
				■ Type of cost used
				■ How this cost was estimated
				If applicable, forms of and costs associated with depreciation and obsolescence used under the approach and how those costs were estimated
			¶.61c.	If the market approach was used, describe:
				For the guideline public company method:
				Selected guideline companies and process used in their selection
				 Pricing multiples used, how they were used, rational for selection, and any adjustments
	_	_		For the guideline company transactions method:
				Sales transactions used, how they were used, and rationale for selection The sales transactions used to the sales transaction and the sales transactions used.
	u			Pricing multiples used, how they were used, and rationale for selection
				If multiples were adjusted, rationale for the adjustments Output Description:
_		_		For guideline sales of interests in subject entity method:
				■ The sales transactions used and how they were used
				 Rationale for determining that these sales were representative of arm's-length transactions
			¶.62.	If rule of thumb was used, in combination with other methods, did analyst disclose source of data and how rule was applied?

Yes	No	N/A	⊪ sass	
				Detailed Report—Valuation Adjustments
			¶.63.	If the analyst made valuation adjustments:
			a)	Identify each valuation adjustment considered and determined applicable (e.g., DLOM, DLOC)
			b)	Describe the rationale for using the adjustment; factors considered in selecting amount/percentage used
			c)	Describe the pre-adjustment value to which the adjustment was applied (¶.40)
				Detailed Report—Nonoperating and Excess Operating Assets
			¶.64.	For a business, business interest, or security, did valuation report identify any related nonoperating asset and/or liabilities, or excess/deficient operating assets and/or liabilities, and their effect on the valuation?
		Deta	ailed Re	port—Analyst Representation and Qualifications; Client Responsibilities
			¶.65.	Does the report include the analyst(s) representation that summarizes factors guiding the work, such as the following examples:
			a)	Analyses, opinions, and conclusion of value are personal to the analyst and are subject to the specified assumptions and limiting conditions (see ¶.18)
			b)	Economic and industry data obtained from sources believed to be reliable; the analyst has not performed corroborating procedures to substantiate data
			c)	Valuation engagement was performed in accordance with AICPA SSVS
			d)	The parties the valuation report is intended for and restricted to; report should not be used by anyone other than identified parties
			e)	State whether the analyst's compensation is either fee-based or contingent on the outcome of the valuation
			f)	Identify any outside specialist; state the level of responsibility, if any, assumed by the analyst
			g)	The analyst has no obligation to update report or opinion of value for information that comes to his/her attention after the date of the report
			h)	Person(s) assuming responsibility for valuation signed the representation in their own name(s); no firm signature. Names of those providing significant professional assistance are listed.
			¶.67.	Does report contain information regarding qualifications of the analyst?
				Detailed Report—Conclusion of Value
			¶.68.	In addition to a discussion of the rationale underlying the conclusion of value, this section should include the following or similar statements:
			a)	The fact that a valuation engagement was performed, identifying the subject interest and valuation date
			b)	Analysis was performed solely for the purpose stated in report; resulting estimate of value should not be used for any other purpose
			c)	Valuation engagement was conducted in accordance with AICPA SSVS
			d)	A statement that the estimate of value resulting from a valuation engagement is expressed as a conclusion of value
			e)	Explain scope of work or data available for the analyses, including any restrictions or limitations
			f)	A statement describing the conclusion of value, either single amount or a range
			g)	The conclusion of value is subject to the assumptions and limiting conditions ($\P.18$) and to the analyst's representation (see $\P.65$)

Yes	No	N/A	⊪ sass	
				Detailed Report—Conclusion of Value (continued)
			h)	The report is signed in the name of the analyst or analyst's firm
			i)	The date of valuation report is included
			j)	The analyst has no obligation to update report or conclusion of value for information that comes to his/her attention after the date of the report
			¶.69.	Did the analyst consider using the example report language for reporting on a valuation engagement?
			¶.70.	Did the analyst use appendices and exhibits, including assumptions and limiting conditions and the analyst's representation?
				Explanation of "No" or "N/A" Answers
			¶ N	o. Explanation
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CHECKLIST 8.40: REVIEW CHECKLIST—EMINENT DOMAIN

Business Name	Valuation Date

This work program checklist has been developed for the purpose of providing a convenient method of establishing that the necessary procedures have been completed, thus assuring the working papers adequately support valuation conclusions in an Eminent Domain valuation. The reviewer should check in the appropriate space below to indicate completion of the various phases of review.

Completed	N/A		
			Analysis
		2.	Check that the scope of our work has been unrestricted. Obtain and review information gathered during the initial stages of this engagement, including a copy of the right-of-way map and any related memos or notes. Coordinate an initial meeting with the business owner and perform the following procedures:
			a) Verify the history of the business and determine its qualifications for business damages. (The business, not necessarily the same owner, has been at that location for a minimum of four years as of the date of taking; there is a partial taking of property that affects the business on the remainder; the business has been damaged as a result of the take of property, with due consideration given to any limitation on access to and from the business.)
			 b) As determined necessary, coordinate efforts with other experts, including: Real Estate Appraisers Engineers Customer Surveys Marketing/Site Research Other
			c) Discuss the taking with the business owner and determine the general effect to the business. Prepare a memo.
			d) Obtain a general understanding of the business, its history and ownership in detail.
			e) Determine the future plans the owner has for the business and document in detail.
			f) Obtain copies of the required financial information (normally this would include the prior five years' tax returns and financial statements, building leases, and current financial information since the latest year end).
			g) Obtain necessary operational information required.
		4.	Immediately after meeting with the business owner, follow up with a letter summarizing the meeting.
		5.	If appropriate, initiate engagement letter for signature.
		6.	Upon receipt of financial information, submit it with proper instructions to the financial analyst for input.
		7.	Analyze output of financial data and calculate projections based on historical information. The resultant projections should represent the expected revenues and expenses for the business in the foreseeable future, adjusted for non-recurring items, owner salaries, use of facilities, and equipment.
		8.	Review and verify the material consistency with reports submitted by other experts including:

Completed	_		
Cor	NA		
			Analysis (continued)
			a) Real Estate Appraisers
			b) Engineers
			c) Customer Surveys
			d) Marketing/Site Research
			e) Other
		9.	Using the financial projections and any other information obtained, including the operational data if applicable, determine the preliminary effect of the taking on the business. This analysis should include any possible reductions in revenues (and gross profits), savings from reduced expenses, required increases in expenses, and other costs to mitigate damages.
		10.	If it does appear economically feasible to continue in operation at the present location, consider a relocation of the business. This analysis would normally include an understanding of the customer base, the competitive nature of the business, the market rent situation, and any other pertinent factors.
		11.	In conjunction with the previous steps, calculate the value of the business.
		12.	Conclude business damages as limited to the lesser of:
			a) Actual damage
_	_		b) Relocation
			c) Value of the business
			Reporting
		13.	Prepare a thorough list of the assumptions and information sources used.
		14.	Prepare a draft of the business damage report.
		15.	Review the report draft, and make any necessary changes.
		16.	Make arrangements to have the business owner and other pertinent parties review the report draft.
		17.	Incorporate agreed-upon changes from all reviewers into final report and produce a final draft of the report.
			Administrative Items
		18.	Review the final report and make sure all initials are obtained on a report control sheet.
		19.	Coordinate with Time and Billing personnel to ensure a detailed printout will be available of total time. Have a standard detailed billing prepared.
		20.	If necessary, prepare a representation letter and have it signed by the business owner.
		21.	Deliver appropriate copies of report and billing.
		22.	Review work paper file to make sure all work papers are properly prepared and support the final report.

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CHECKLIST 8.41: NON-APPRAISER'S GUIDE TO REVIEWING BUSINESS VALUATION REPORTS

Check if the following items are reflected in the report.

Yes	$^{\rm N}$		
			Are the Following Clearly Stated?
		1.	Specific definition of what is being appraised ¹
		2.	Purpose of appraisal ¹
		3.	Date of valuation ¹
		4.	Date of report preparation ¹
		5.	Standard of value, including reference to statutes if a statutory standard is applicable ¹
			Are the Following Adequately Described to Give You a Basic Knowledge of
		6.	Form of ownership (corporate, partnership, etc.) ²
		7.	History of the company ¹
		8.	Major assets, both tangible and intangible (goodwill, patents, etc.) ¹
		9.	Products or services ¹
		10.	Markets or customers ¹
		11.	Competition ¹
		12.	Management ²
		13.	Who owns the company
		14.	How the company is capitalized
		15.	Outlook for the economy, industry, and company ¹
		16.	Past transactional evidence of value (sale of stock, etc.) ¹
		17.	Sensitivity to seasonal or cyclical factors ²
		18.	State of incorporation
		19.	Sources of information ²
			Financial Analysis ¹
		20.	Is there a discussion of the firm's financial statements? ²
		21.	Are there exhibits summarizing balance sheets and income statements for a sufficient period of time? ²
		22.	Are any adjustments made to the financial statements as explained? ²
		23.	Are company financial statements compared to those of its industry? ²
		24.	If discounted future earnings or cash flows are used, are the appropriate statements
			summarized and key assumptions included? ²
			Valuation Methodology and Report
		25.	Are the methods used identified and the reasons for their selection discussed? ¹
		26.	Are the steps followed in the application of the method(s) understandable and do they lead you to the value conclusion? ¹
		27.	When applicable, are sales of similar businesses or capital stock of publicly traded similar businesses used for comparison? ³
		28.	Does the report explain how any discounts, capitalization rates, or valuation multiples were determined or used? ²
		29.	Is the terminology used in the report defined so that it is understandable?
			Does the report identify the appraisers and have the appraisers signed the report? ¹
			Does the report contain the statement of certification signed by the appraiser? ¹

Kes	ž		
D	oes th	e App	praiser's Statement of Qualifications Present Relevant Qualifications for This Appraisal?
		32.	Education
		33.	Technical training
		34.	Professional designations
		35.	Professional appraisal organization memberships and activities
		36.	Type and years of experience
		37.	Does the report contain a statement of confidentiality? ²
	Do	es the	Report Contain a Statement of Assumptions and Limiting Conditions, Regarding
		38.	Conflicts of interest ²
		39.	Reliance on data and information supplied by others without verification ²
		40.	The valuation only being valid for the valuation date and stated purpose ²
		41.	Does the report, in your opinion, cover all the material factors that affect the value of the business? ²
		42.	Is the value conclusion reasonable, as a result of all the factors presented in the report?

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- 1. Specifically mentioned in the Appraisal Foundation's Uniform Standards of Professional Appraisal Practice, the American Society of Appraisers' Business Valuation Standards AICPA SSVS VS Section 100.
- 2. Specifically mentioned only by American Society of Appraisers.
- 3. Specifically mentioned only by the Appraisal Foundation.

CHECKLIST 8.42: AUDITOR REVIEW OF VALUATION FOR FINANCIAL REPORTING

Business Name	Valuation Date
Reviewer	Valuation Type

Each item on this checklist is to be reviewed progressively by the responsible auditor and by category as the valuer completes the engagement. Scheduling this progressive review of the valuation engagement will eliminate surprises at the end of the engagement, which could cause a delay in issuing the audit. This checklist does not replace the valuation audit program, but is intended to facilitate communication between the valuers and the auditors concerning key valuation issues as the valuation progresses. When completed, this review checklist will insure the auditor has completed critical steps in the audit program.

ted		
Completed		
ပိ		
		Are the Following Clearly Stated?
	1.	Does the valuer have specialized training in business valuation and intangible assets?
	2.	Does the valuer hold the appropriate professional designations in business valuation, e.g., CPA/ABV, ASA, CBA, CVA?
	3.	Can the valuer adequately discuss the appropriate accounting guidance for the engagement?
	4.	Does the valuer have adequate experience in valuing intangible assets?
	5.	Does the valuer meet the qualifications for a valuation specialist per AU Section 336 and SSVS VS Section 100?
		Industry and Company Risks
	6.	Does the valuer understand your perception of the industry's business and financial risks applicable to the company?
	7.	Does the valuer understand your perception of the company's business and financial risks?
	8.	If the valuer is not familiar with the industry's business and financial risks, did they adequately communicate how they would obtain sufficient relevant knowledge about the industry's business and financial risks?
		Company Projections
	9.	Did the valuer perform a mathematical check of the company projections?
	10.	If so, did they find any mathematical errors?
	11.	Can the valuer adequately explain how they tested the underlying assumptions?
	12.	Does the valuer have a list of the assumptions that required additional analysis or support?
	13.	Does the valuer's risk analysis of the underlying assumptions correspond with your analysis of the underlying assumptions?
	14.	If not, can you reconcile the differences?
		Guideline Companies Selected
	15.	Can the valuer adequately explain the process used in selecting the guideline companies?
	16.	Does the valuer have a list of considered but excluded companies?
		Are all the guideline companies in the same industry?
	18.	If not, can the valuer explain why the guideline companies have the same investment risk characteristics as the subject company?

19. Do you agree that the guideline companies selected appear appropriate?

Completed

Discount Rate Development

- ☐ 20. Did the valuer use the capital asset pricing model?
- ☐ 21. Did the valuer use the buildup method as a fundamental analysis?
- ☐ 22. Did the valuer use the weighted average cost capital?
- 23. If so, does the equity portion match either the capital asset pricing model or the buildup method?
 - 24. If so, can the valuer justify the selection of the interest rate used?
 - 25. If so, is the tax rate used in determining the after-tax interest rate appropriate for the subject company?
 - 26. If so, can the valuer justify the weighting between the equity and the debt portions of the weighted average cost capital model?
 - 27. Does the valuer have supporting documentation for the input items in the various discount rate development models?

Economic Adjustments

- 28. Has the company or valuer identified all the appropriate nonrecurring economic events or costs?
- 29. Can the valuer justify any other economic adjustments made to the income statements?
- 30. If using an adjusted balance sheet method, did the valuer provide appropriate documentation for the economic adjustments made to the balance sheet?

Allocation of Income to Identifiable Intangible Assets

- ☐ 31. Has the valuer made a list of identifiable intangible assets applicable to the subject company?
- ☐ 32. Does the schedule of income allocation have appropriate supporting documentation?
- 33. Does the schedule of income allocation reconcile to total company income?
- ☐ 34. Are there any reasons to disagree with the income allocation schedule?
- ☐ 35. If so, have these issues been discussed with the valuer?

Royalty Rates

- ☐ 36. Does the valuer have a list of royalty rates applicable to each identifiable intangible asset?
- □ 37. Were the royalty rates derived from a royalty rate survey?
- 38. If so, did the valuer present any analysis related to the quality or the survey?
- ☐ 39. Did the value use a rule of thumb in determining the royalty rate?
- 40. Were the royalty rates derived from a study of actual licensing transactions?
- 41. Can the valuer adequately explain the selection process used in determining the guideline licensing transaction?
- 42. Can the valuer explain any adjustments to the guideline royalty rate transactions?

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CHECKLIST 8.43: FAIR VALUE MEASUREMENT CHECKLIST

Target Name		
Acquirer Name		
Acquisition Date		
Type of Deal—Equity or Asset		
Consideration		
Purpose—Financial Reporting or Tax Reporting or Both		

This is a generalized outline intended to guide the analyst through the developmental processes required of ASC 805, Business Combinations. Some items may not pertain to the subject transaction or the subject company. The analyst using this checklist may note such items with N/A. Checklist items should be cross-referenced to the source document whether in electronic or printed form. Obtain sufficient relevant data to afford a reasonable basis for conclusions or recommendations in relation to each process.

Providedd NA

	I. Subject Company (Target)
	Determine the balance sheet account subject to fair value determination. Distinguish between the Unit of Account and Unit of Valuation.
	A. Determine highest and best use
	1. Physically possible
	2. Legally permissible
	3. Financially feasible
	4. Determine valuation premise
	a) Most advantageous of
	In-use
	 Maximum value while used in combination with other assets
	 Aggregated
	In exchange
	 Maximum value on a standalone basis
	 May be aggregated or disaggregated
	b) Determination is based on valuation premise likely selected by market participants
	B. Consideration for valuing assets:
	1. The fair value should exclude assumptions relating to the specific buyer's (yours)
	unique synergies unless such synergies would be included by market participants in
	determining fair value
	C. Consideration for valuing liabilities:
	1. Nonperformance risk <u>must be considered</u>
	2. Nonperformance risk must be the same before and after the assumed transfer
	3. Nonperformance risk is the risk of not fulfilling the obligation
	4. <u>Includes</u> the reporting unit's <u>credit risk</u>

(continues)

 1. For each subject asset

Providedd NAII. Market Basis for Fair Value-Principal Market Determine the principal market for the asset or liability. A. Start with NAICS code, Chicago Board of Exchange, public market, or other (state) 1. May or may not be direct competitors 2. May be outside industry of NAICS code B. Define principal market 1. Data must be observable 2. Based on greatest volume of transaction activity (frequency) 3. Based on highest level of transaction activity (size or severity) C. If a principal market cannot be clearly defined based on frequency and size of transaction activity, then: 1. Determine which of the markets is most advantageous based on achieving a) Highest price for an asset b) Lowest price for a liability D. If a principal or most advantageous market is not the one being used by the reporting entity, then: 1. Determine why a) Location b) Difference in unit of accounting c) Difference in quality or specific attributes of asset being measured and assets being exchanged on the principal market E. Select the principal market 1. May be different for each Asset ■ Liability 2. Would include an array of buyers and sellers in the most advantageous market for the subject asset or liability III. Market Basis for Fair Value—Market Participant Determine the market participant for the subject asset or liability. A. Must be independent of reporting unit B. Must be knowledgeable (would have all relevant information, including obtaining information through customary due diligence) or capable to gain knowledge C. Must have ability to transact D. Must be willing to transact (motivated but not compelled) E. Data must be observable 1. Full transactions must be observable a) At subject asset or liability level b) In public domain 2. Failing full transactions a) Component inputs must be observable b) Inputs comprise and supersede subject entity's own assumptions F. Select the market participants

a) If available, observe synergies within market participants

Providedd	N/A	
		III. Market Basis for Fair Value—Market Participant (continued)
		2. For each subject liability
		a) Define nonperformance risk within market participants
		 Specifically include reporting unit's credit risk
		IV. Determine Fair Value
		Determine fair value for the subject asset or liability.
		A. Identify Measurement Date
		B. Determine if pricing data are observable
		1. If yes, determine if full pricing data are for identical or similar assets or liabilities
		a) If identical (or similar) assets
		 Select the most reasonable price most appropriate to apply to subject
		 State reason for selection
		Point estimate most identical to subject
		Mean or median most representative of subject
		 Verify Subject company specific synergies are excluded
		Transaction costs are excluded Transaction costs are excluded
		■ Transportation costs may be included
		 Blockage adjustments are excluded
		Restricted stock adjustments (related to the restriction) may be included if
		the restriction would transfer to the market participant
		 Mean or median most representative of subject Render opinion of Fair Value
		b) If identical (or similar) liabilities
		 Identical (or similar) habilities Identify price(s) paid to transfer the liability
		Select the most reasonable price most appropriate to apply to subject
	_	State reason for selection
_	_	Point estimate most identical to subject
		Mean or median most representative of subject
		Verify
		 Subject company specific synergies are excluded
		■ Transaction costs are excluded
		Blockage adjustments are excludedNonperformance risk is included
		Must include reporting unit's own credit risk
		Render opinion of Fair Value
		If no, determine if input data (assumptions) are for identical or similar assets or liabilities to subject asset or liability
		a) Identify the methodology applicable
	_	Determine the reporting unit's methodology input components
	_	Identify the inputs available from market participants
_	_	 Apply market participant inputs to reporting unit selected methodology
	_	 Determine whether tax amortization benefits should be included in fair value
		calculation
		 Determine market participant risk/uncertainty premium if cash flow or income approach is used

Providedd	N/A	
		IV. Determine Fair Value (continued)
		 Verify Subject company specific synergies are excluded Transaction costs are excluded Transportation costs may be included Blockage adjustments are excluded Restricted stock adjustments (related to the restriction) may be included if the restriction would transfer to the market participant
		 Render opinion of Fair Value Adjust Fair Value opinion based on subsequent events
		· · · · · · · · · · · · · · · · · · ·
		V. Determine Disclosure Level
		Select hierarchy level that applies to subject asset or liability (based on the lowest level of inputs that are significant to the measurement).
		A. Level 1 (observable)
		1. Market participants are defined
		2. Market is observable
		a) Quoted prices
		b) Identical to subject assets or liabilities
		c) Market is active
		d) Market is accessible at measurement date
		B. Level 2 (observable)
		1. Market participants defined
		2. Market is observable
		C. Level 3 (unobservable)
		1. Principal Market not able to be defined
		2. Market participants not able to be defined
		3. Pricing data are not observable
		4. Component input data are not observable
		5. Component input data are not able to be corroborated
		6. Must use reasonable inputs based on
		 Assumptions market participants would use
		 Market participant assumptions must preclude specific assumptions of reporting unit

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This book includes a companion website, which can be found at www.wiley.com\ go\Hitchner4ewb. Enter password: valuation.

The website includes the exhibits and forms found in Chapter 7, and the checklists found in Chapter 8.

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