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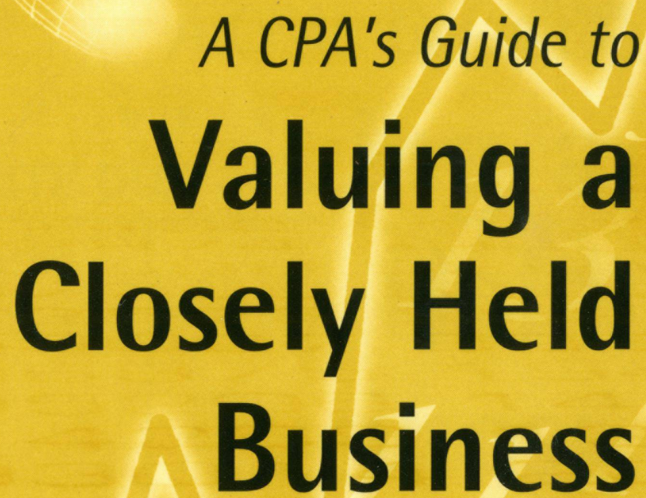
Valuing a Closely Held Business   Gary R. Trugman   AICPA

American Institute of Certified Public Accountants



A CPA's Guide to

Valuing a Closely Held Business

Gary R. Trugman, CPA/ABV

AICPA

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AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS

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Valuing a Closely Held Business

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Gary R. Trugman, CPA/ABV

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ABOUT THE AUTHOR

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Gary R. Trugman is a Certified Public Accountant licensed in the states of New Jersey, New York and Florida. He is Accredited in Business Valuation by the American Institute of CPAs and is a Master Certified Business Appraiser as designated by The Institute of Business Appraisers Inc. He is also an Accredited Senior Appraiser in Business Valuation by the American Society of Appraisers. Gary is regularly court appointed and has served as an expert witness in Federal court and state courts in several jurisdictions, testifying on business valuation, matrimonial matters, business and economic damages and other types of litigation matters.

Gary is currently on the American Institute of CPAs' subcommittee working with the judiciary and he is a former member of the Executive Committee of the Management Consulting Services Division of the American Institute of CPAs, the Litigation Services Committee of the New Jersey Society of CPAs, the Business Valuation Subcommittee (past-chairman) of the New Jersey Society of CPAs, the Matrimonial Committee of the New Jersey Society of CPAs, and formerly a member of the Business Valuation and Appraisal Subcommittee of the American Institute of CPAs.

Gary is Chairman of the Ethics and Discipline Committee, serves on the Qualification Review Committee and is the former Regional Governor of the Mid-Atlantic Region of The Institute of Business Appraisers Inc. and has received a Fellow Award from The Institute of Business Appraisers Inc. for his many years of volunteer work in the profession. Gary has also received an AICPA Hall of Fame Award for his service to the accounting profession in assisting in the accreditation in business valuation process. Gary serves on the Business Valuation Education Subcommittee and the International Board of Examiners of the American Society of Appraisers. He is also a faculty member of the National Judicial College.

Gary lectures nationally on business valuation topics. He is the author of a textbook entitled *Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses*, published by the American Institute of CPAs. He has also developed numerous educational courses, including but not limited to, a six day business valuation educational series and a seminar entitled "Understanding Business Valuation for the Practice of Law" for the Institute of Continuing Legal Education. Gary also serves as an editorial advisor for *The Journal of Accountancy, The CPA Expert,* and the *CPA Litigation Service Counselor.* He has lectured in front of numerous groups and has been published in *The Journal of Accountancy, FairShare* and *The CPA Litigation Service Counselor.*

Gary was born in New York and received his undergraduate degree from The Bernard M. Baruch College of the City University of New York. He was the first business appraiser in the United States to earn a Masters in Valuation Sciences from Lindenwood College. His Masters Thesis topic was "Equitable Distribution Value of Closely Held Businesses and Professional Practices". Gary's appraisal education also includes various courses offered by The Institute of Business Appraisers, the American Society of Appraisers, the American Institute of CPAs and others. He has taught federal income taxation at Centenary College, financial statement analysis in the masters degree program at Lindenwood College, and several topics at the A.I.C.P.A. National Tax School in Champaign, Illinois. He is a member of The Institute of Business Appraisers Inc., the American Society of Appraisers, the American Institute of Certified Public Accountants, the New Jersey Society of Certified Public Accountants and the New York State Society of Certified Public Accountants.

TABLE OF CONTENTS

ACKNOWLEDGMENTS iii

ABOUT THE AUTHOR v

SCOPE 1

INTRODUCTION 1

BUSINESS VALUATION EDUCATION 4

WHAT WILL BE VALUED? 5

ENGAGEMENT CONSIDERATIONS 5
- Engagement Letters 6

PURPOSE AND FUNCTION OF THE BUSINESS VALUATION 6
- Mergers, Acquisitions, Reorganizations, Spinoffs, Liquidations, and Bankruptcy 8
- Allocation of Purchase Price 8
- Estate, Gift, and Income Taxes 9
- Marital Distribution 10
- Employee Stock Ownership Plans 10
- Buy-Sell Agreements 10
- Stockholder Disputes 11
- Financing 11
- Ad Valorem Taxes 12
- Incentive Stock Option Considerations 12
- Initial Public Offering 12
- Damages Litigation 13
- Insurance Claims 13
- Charitable Contributions 13
- Eminent Domain Actions 13

TAX CONSIDERATIONS 14
- Form of the Business 14
- Potential Tax Deficiencies 15
- Internal Revenue Service Guidelines 15

VALUATION CONCEPTS 17
- Standard of Value 18
- Choosing the Appropriate Standard of Value 19

PREMISES OF ALLOCATION 19
Approaches to Value 20

ANALYZING FINANCIAL RATIOS 30

FINANCIAL RATIO ANALYSIS CONSIDERATIONS 31

ENGAGEMENT OBJECTIVES AND CLIENT BENEFITS 33

ENGAGEMENT SCOPE 34

ENGAGEMENT APPROACH 34
Preparation 35
Analysis 35

ENGAGEMENT OUTPUTS 36

DISCOUNT AND CAPITALIZATION RATES 36
The Buildup Method 39
Capital Asset Pricing Model 41

DISCOUNTS AND PREMIUMS 43
Minority Discount 44
Discount for Lack of Marketability 46
Small Company Discount 47
Discount From Net Asset Value 47
Control Premium 48
CONCLUSION 48

APPENDIX A—CASE STUDY: VALUATION OF 100 PERCENT OF THE EQUITY OF XYZ BAR AND GRILL, INC. 49

APPENDIX B—FINANCIAL RATIOS 105

BIBLIOGRAPHY 111

A CPA'S GUIDE TO VALUING A CLOSELY HELD BUSINESS

SCOPE

.01 This document provides practitioners with an overview of the business valuation process. It is not authoritative, nor should it be relied upon solely in rendering an opinion on the value of a closely held business. Instead, it is designed to help the practitioner to understand the valuation process, its applicability to certain types of engagements, the various methods of valuation, and to find answers to the many questions that arise during business valuation engagements.

.02 Because financial ratio analysis is an important component of the valuation of closely held businesses, it has been given more prominence in this document. Clearly, financial ratio analysis extends beyond the valuation of closely held businesses. This type of analysis is frequently undertaken to assist a client in evaluating past, current, and future performance. The interpretation of this information allows users of financial data to understand the trends and risks associated with a business.

.03 In performing business valuation engagements, the practitioner is advised to review appropriate professional literature to determine the accountant's reporting requirements if the report contains financial statements intended for third parties. Particular care should be taken by the practitioner to review the appropriate professional literature to understand prospective financial reporting requirements as they relate to forecasts and projections because valuation is a prophecy of the future. The business valuer must use forecasts and projections in the normal course of the business valuation engagement and cannot rely solely on historical financial statements.

INTRODUCTION

.01 Up until the 1920s, a business's selling price was strictly a matter of negotiation between the buyer and the seller and depended primarily on their horsetrading sense. The buyer usually based forecasted profits and cash flow on an eyeball appraisal of the seller's standard of living and status in the community. Since the 1920s, however, the valuation of closely held businesses has become increasingly complex. Business valuation began changing during Prohibition when breweries and distilleries faced substantial losses in the intangible value of their businesses. In response, the Internal Revenue Service (IRS) issued Committee on Appeals and Review Memorandum 34 (ARM).[1] ARM 34

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[1] ARM 34, 2 C.B. 31, superceded by Rev. Rul. 68-609, 1968-2 C.B. 327.

suggested using formulas to determine both the intangible value and the goodwill value of businesses for estate and gift tax purposes. Practitioners applied ARM 34 by adding the value of the goodwill and other intangibles to the tangible assets in determining a business's total value.

.02 In 1959, the IRS issued Revenue Ruling 59-60,[2] which is regarded as one of the most important rulings concerning valuation. Although Revenue Ruling 59-60 was intended for estate and gift tax purposes only, Revenue Ruling 65-192[3] expanded its applicability by stating that the methods employed in 59-60 also apply to income and other taxes.

.03 In 1968, the IRS issued Revenue Ruling 68-609,[4] which many practitioners refer to as *the formula approach* or *the excess earnings method.* The intent of Revenue Ruling 68-609 was to assist in the valuation of intangibles. However, the revenue ruling suggests that "the 'formula' approach may be used for determining the fair market value of intangible assets of a business *only if there is no better basis therefor available.*" (Italics have been added for emphasis.)

.04 By the late 1970s and early 1980s, the demand for business valuation services was substantial. Many accounting firms were either setting up valuation departments or acquiring entire appraisal firms. This period also saw the emergence and growth of professional appraisal organizations, such as the Institute of Business Appraisers, Inc. and the American Society of Appraisers.

.05 By the late 1980s, the AICPA created a business valuation task force, subsequently becoming a subcommittee that among other things, began a push to have better education available for certified public accountants (CPAs), leading ultimately to a business valuation credential.

.06 During the early 1990s, the National Association of Certified Valuation Analysts was formed, demonstrating to the AICPA that CPAs wanted an organization that provided credentials that had a prerequisite of being a CPA.

.07 In 1997, the AICPA gave its first accreditation examination, granting approximately 500 CPAs with the Accredited in Business Valuation (ABV) designation. The requirements to be eligible for the ABV include that one must—

- Be a CPA.
- Have been significantly involved with at least ten valuations.

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[2] Revenue Ruling 59-60, 1959-1 C.B. 237.
[3] Revenue Ruling 65-192, 1965-2 C.B. 259.
[4] Revenue Ruling 68-609, 1968-2 C.B. 327.

- Maintain twenty hours per year of continuing professional education in business valuation.
- Pass an 8-hour written and proctored examination.

.08 Another significant change in the appraisal field took place in the late 1980s as a result of a downward slide in the real estate market. Realizing that a change had to be made, eight appraisal organizations created the Appraisal Foundation, which promulgated the Uniform Standards of Professional Appraisal Practice (USPAP). Also, as a result of economic problems suffered by banks and thrifts, the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA) was enacted. FIRREA mandates the licensing or certification of real estate appraisers. Although intended to affect only real estate appraisals, this legislation has had an impact on accounting firms by restricting services to be rendered in certain situations. Several states have expanded FIRREA's applicability to cover business valuations and personal property appraisals.

.09 USPAP, which are broad standards, must be adhered to when an appraisal is performed for a federally related transaction involving real estate. The Preamble and Standards 9 and 10 of USPAP provide specific guidelines for developing and reporting business valuations. Professional valuers typically recommend that USPAP be followed for all types of engagements, whether federally related or not. USPAP is discussed in greater detail later in this publication.

.10 USPAP do not significantly change the manner in which closely held businesses are valued. The basic guidelines provided for business valuers are in Revenue Ruling 59-60, which lists the following eight factors to be considered in the valuation of closely held businesses:

1. The nature of the business and the history of the enterprise from its inception

2. The economic outlook in general and the condition and outlook of the specific industry in particular

3. The book value of the stock and the financial condition of the business

4. The earning capacity of the company

5. The dividend-paying capacity

6. The enterprise's goodwill and other intangible values

7. Sales of the stock and the size of the block of stock to be valued

8. The market price of stocks of corporations engaged in the same or a similar business and trading stocks in a free and open market, either on an exchange or over the counter

.11 Revenue Ruling 59-60 discusses each of these factors and the practitioner's consideration of them is a minimum requirement in all business valuations. A good business valuer will also consider other factors, depending on the purpose of the engagement. Frequently, the practitioner will perform additional analyses and procedures to provide the client with a well-informed, supportable estimate of value.

.12 The practitioner should be aware that valuation is both an art and a science and, therefore, absolute precision will never be achieved. During the valuation process, certain information will be readily available and unquestionable. Other information will require the valuer to use informed judgment and common sense. The conclusions drawn from this information may be considerably subjective, and, therefore, the practitioner's working papers and documentation may be questioned, particularly if the appraisal is for a litigation engagement. The practitioner should remain sensitive to the appearance of bias and should be objective in arriving at the final value. If the service is provided to an attest client, the practitioner is advised to consult the *AICPA Code of Professional Conduct,* rule 101, *Independence* (AICPA, *Professional Standards,* vol. 2, ET sec. 101).

BUSINESS VALUATION EDUCATION

.01 In performing business valuation engagements, practitioners are advised to determine whether the competency provisions of rule 201, *General Standards* (AICPA, *Professional Standards,* vol. 2, ET sec. 202) are met. Although accountants have a thorough understanding of financial statements and related matters, they also need to be proficient in the area of appraisals to competently complete an engagement. Usually, being proficient requires an in-depth knowledge of finance, economics, and security analysis and an understanding of appraisal principles and methods.

.02 In order for the practitioner to obtain the competency required to accept a business valuation engagement, appropriate education is required. Courses sponsored by the AICPA, and the various appraisal organizations will provide practitioners with the minimum education necessary to perform these types of engagements. Self-study courses may help reinforce a level of knowledge; however, they are usually insufficient as the sole method of education.

.03 Over the past several years, the AICPA has taken an active role in providing numerous business valuation courses.[5]

WHAT WILL BE VALUED?

.01 One of the most important considerations in the valuation process is the determination of what will be valued by the practitioner. In engagements, practitioners sometimes refer to the valuation subject as *the Company,* but fail to precisely define what the term encompasses. Generally, the valuation assignment will be to estimate the value of either the equity of the Company, the invested capital of the Company, components of the equity, or specific assets, and possibly liabilities.

.02 Most small businesses are generally sold as asset sales as compared with stock sales. Frequently, specific assets and liabilities are excluded from the sale and, therefore, the valuation must be clearly defined.

.03 Unless stated otherwise, the Company's equity will be considered the valuation subject. This means that all assets and liabilities will be included in the final estimate of value.

ENGAGEMENT CONSIDERATIONS

.01 As with any engagement, the practitioner needs to consider several factors before accepting a business valuation assignment. These factors include the following:

- The purpose and function of the valuation assignment
- The practitioner's competency to perform the assignment
- The amount of time required to perform the assignment
- The scope of the assignment including the possibility of giving expert testimony

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[5] Fundamentals of Business Valuation (FBV I and II), Advanced Analysis of Discounts and Premiums (BVA-ADP), Advanced Research and Analysis (BVA-ARA), Valuing ESOP Companies (BVA-ESOP), Health Care Industry and Medical Practice Valuation (BVA-HC), Using Ibbotson Associates' Publications in Private Firm Valuations (BVA-IBBOT), Market Approach: Advanced Guideline Company Analysis (BVA-MA), Computing the Cost of Capital (BVA-ROR), Small Business Valuation Case Study (BVA-SBCS), and Valuation Issues in Divorce Settings (BVA-VID). For the complete listing see www.aicpa.org/members/div/mcs/statesoc.htm for the business valuation courses and www.aicpa.org/members/div/mcs/abvexamr.htm for the ABV examination review course.

- The type of report required
- The possibility of a conflict of interest or the appearance of a conflict of interest

Engagement Letters

.02 As with any assignment, an engagement letter is recommended for business valuation engagements in order to avoid any potential misunderstanding about the assignment. A good engagement letter includes, at a minimum, the following:

- A description of the scope of the valuation assignment, including a definition of the subject of the valuation
- The standard of value that will be used, including a definition of the standard
- The effective date of the valuation
- The type of report that will be submitted to the client, whether a formal report, a letter report, or an oral report
- A list of limiting conditions and restrictions on the use of the report by the party or parties for which it is intended
- An outline of what will be expected of the client in the engagement, such as providing the valuer with a forecast, or signing a representation letter at the end of the engagement, if applicable
- The method of determining fees and the terms of payment

.03 Examples of an engagement letter, representation letter, and the valuation report cover letter are presented in appendix A, "Case Study: Valuation of 100 Percent of the Equity of XYZ Bar and Grill, Inc."

PURPOSE AND FUNCTION OF THE BUSINESS VALUATION

.01 The most important elements of a business valuation engagement are the purpose and function of the assignment. The valuation methods employed by the business valuer will be determined by the reason for the engagement. This does

not mean that the value will be based on who the client is, but that certain concepts, approaches, and standards of value may be required for certain types of engagements.

.02 For example, if the business valuation is to be done for a decedent's estate, the Internal Revenue Code (IRC) requires the purpose to be to derive the fair market value (FMV), while the function of the valuation will be to include it in the estate tax returns. In this instance, the valuer must use the standard of FMV, while following the guidance of revenue rulings. However, if the valuation is being done because the practitioner represents a prospective purchaser of the business, the standard of value known as investment value may be used rather than FMV. In this case, the purpose of the valuation is to determine the investment value, and the function is to value a prospective purchase. The purpose and function of the assignment are critical to determining the standard of value.

.03 Business valuation engagements are performed for a variety of reasons including the following:

- Mergers, acquisitions, reorganizations, spinoffs, liquidations, and bankruptcy
- Allocation of purchase price
- Estate, gift, and income taxes
- Marital dissolution
- Employee stock ownership plans (ESOPs)
- Buy-sell agreements
- Stockholder disputes
- Financing
- Ad valorem taxes
- Incentive stock option considerations
- Initial public offerings (IPOs)
- Damages litigation

- Insurance claims
- Charitable contributions
- Eminent domain actions

Mergers, Acquisitions, Reorganizations, Spinoffs, Liquidations, and Bankruptcy

.04 Business valuations are frequently performed when one company acquires another, when a company is targeted for an acquisition, when a company's capital structure is reorganized, when a company splits up, and when a company enters bankruptcy whether in liquidation or reorganization. The transactions may include entire or partial acquisitions, divestitures, liquidation, or recapitalization. Mergers will generally require both companies to be valued while an acquisition may only require a single valuation. The terms of the transaction generally include cash, notes, stock, or a combination of these forms of payment. In bankruptcy, in addition to the involvement of the different classes of creditors and the shareholders, the approval of the Bankruptcy Court is usually required.

.05 Closely held companies with two or more definable divisions may be split up or spun off into separate corporations. Reasons for doing this can include estate tax considerations, family conflict, or sale of only part of the total business. Valuations are usually necessary for tax purposes, financial reporting, and, if applicable, equitable distribution of the assets among family members. In the liquidation of a corporation, the valuer's allocation of the assets distributed to the stockholders may be required to substantiate subsequent depreciation and other deductions claimed.

Allocation of Purchase Price

.06 IRC Section 1060 requires that, when a business is acquired, a valuation must be performed to support the allocation of the total purchase price to the component parts for income tax purposes. In prior years, both the purchaser and seller would determine its own value and treat the purchase and sale of the assets differently. However, the Tax Reform Act of 1986 requires a uniform allocation of the purchase price based on an appraisal of the underlying assets. The IRS now reviews these transactions more closely than ever to ensure that the purchase price allocation is reasonable and is treated consistently by both the purchaser and the seller. An inappropriate or inconsistent allocation of the purchase price can result in an increased tax liability and, in some instances, penalties.

.07 In 1993, the tax law changed, providing for intangible assets to be amortized over fifteen years. This change reduced the necessity for appraisers to allocate the purchase price between different classes of intangible assets that had different amortization periods, or no amortization period (for example, goodwill), under the old law. Allocation of purchase price continues to be a required service, although the tax law has made it a little easier.

.08 In addition to allocating the purchase price for tax purposes, GAAP may also require these types of valuations. The practitioner needs to be aware of pronouncements such as APB 16 and 17 as well as FASB pronouncements dealing with issues such as the impairment of goodwill.

Estate, Gift, and Income Taxes

.09 The valuation of a closely held business interest is important to practitioners as they consider the impact of the unified estate and gift tax credit on lifetime transfers of property. Practitioners are urged to consult the appropriate Internal Revenue Code (IRC) and regulation sections for specifics on the estate and gift tax requirements.

.10 IRC Section 2036(c), relating to estate freeze techniques, was repealed and superseded by a new complex set of rules in Chapter 14 of the IRC. These rules can be advantageous for the client, but the IRC and the accompanying regulations include strict provisions for compliance. Practitioners therefore should familiarize themselves with Chapter 14.

.11 In addition, the IRC contains special privileges for the redemption of stock in a closely held company when the owner dies and the value of the stock represents more than 35 percent of the gross estate. Practitioners need to be aware of the alternatives under IRC Section 303.

.12 A hot estate planning vehicle of the 1990s was the creation of Family Limited Partnerships. Frequently, the creation of these partnerships involves the gifting of limited partnership interests. This has led to considerable valuation activity, resulting in sizable discounts to be taken from the value of the gifted interests. Practitioners must be familiar with the latest revenue rulings, court cases, and IRS positions in order to properly value these interests.

.13 Valuations performed for income tax purposes may include S corporation conversions due to the built-in gains tax issues that arise if a sale occurs before the 10-year period required by the IRC. Practitioners should consult applicable IRC sections to properly understand the unique requirements of S corporation valuations performed for a conversion.

Marital Dissolution

.14 In a marital dissolution, most of a couple's assets and liabilities are valued regardless of whether a state follows equitable distribution or community property rules. Frequently, one of the assets included in the marital estate is an interest in a closely held business. It is typical to have the business valued in its entirety if it is a small business, but sometimes only a portion of the business would be valued (minority interest) in a large business. Usually, the business is not divided between the spouses. Instead, one spouse keeps the family business and the other receives different assets of equal value as distribution. Since marital dissolution laws vary significantly from state to state, the practitioner must be aware of the rules of the state in which the divorce will take place. For example, in some states, the goodwill associated with a professional practice is excludable from distribution, while in other states, it is included.

Employee Stock Ownership Plans

.15 An ESOP is an incentive ownership arrangement funded by the employer. Generally, employer stock is contributed instead of cash. ESOPs provide capital, liquidity, and certain tax advantages for private companies whose owners do not want to go public. An independent valuer must value the employer's securities at least annually and determine the price per share to support transactions with participants, plan contributions, and allocations within the ESOP. Practitioners are urged to become familiar with the tax and Department of Labor (DOL) statutory and administrative rules before beginning an ESOP engagement.

Buy-Sell Agreements

.16 A buy-sell agreement allows a partner or stockholder in a closely held business to acquire the interest of a partner or stockholder who withdraws from the business. The agreement may contain a designated amount or a formula to determine the price that the remaining owners of the entity will pay to acquire the interest. The amount or the formula needs to be updated periodically. Payment terms and conditions of sale are also generally provided. A client may ask a practitioner to assist in determining which valuation method is appropriate in such an agreement.

.17 Buy-sell agreements are also frequently used to establish a value for a transaction between the partners or stockholders in the event of death, disability, or retirement. It is common to see different formulas for each in a buy-sell agreement.

.18 In working with the client, the practitioner should caution the client about the use of a single formula. Formulas do not always appropriately consider the

economic and financial climate at the valuation date, stand the test of time, or achieve the parties' intentions. Therefore, their usage should be limited. Instead, the basis of a buy-sell agreement should be a valuation. If an extensive valuation is required, it should be performed by a qualified valuer.

Stockholder Disputes

.19 Stockholder disputes can range from breakups of companies resulting from disagreements between stockholders to stockholder dissension relating to mergers, dissolutions, and similar matters. Since many states allow a corporation to merge, dissolve, or restructure without unanimous stockholder consent, many disputes have arisen over the years because minority stockholders believe that the action of the majority had a negative impact on them. Dissenting stockholders have filed lawsuits to allow their shares to be valued as if the action never took place.

.20 In such cases, the value of the stockholder's interest is what it was immediately before the change and does not reflect the effect of the proposed change on the value of the corporation. In these instances, value is generally determined according to the standard of fair value based on case law within the state of incorporation. If a valuer accepts an engagement relating to a stockholder action, it is advisable to request the client's legal counsel to clarify the value definition used in the particular state. The valuer cannot address such issues as control premiums and minority discounts without adequate legal information about the value definition to be used.

.21 Stockholder disputes also take place as a result of an *oppression* of the minority owner(s). This type of litigation requires the practitioner to be familiar with the case law in the jurisdiction in which the litigation takes place. As with all litigation, the practitioner should consult with the client's attorney about applicable case law.

Financing

.22 A valuation of the business may provide a lender or potential investors with information that will help the client obtain additional funds. Financial statements present information about a business based on historical amounts. For a new business, the traditional statement may closely reflect estimated current value. However, this is generally not the case for an established business that has developed intangible value over the years. Assets with intangible value, such as special trademarks, patents, customer lists, and goodwill, may not be reflected in the financial statements. Furthermore, other assets and liabilities of the business, such as real estate and equipment, may be worth significantly

more or less than their book value as recorded under generally accepted accounting principles (GAAP).

Ad Valorem Taxes

.23 In some jurisdictions, ad valorem taxes are based on the value of property used in a trade or business. Various entities are subject to ad valorem taxation, and, therefore, the FMV of such properties frequently must be determined to ascertain the amount of tax. Regulations and case law differ significantly from jurisdiction to jurisdiction. To determine the appropriate standard of value for these properties, the practitioner needs to consult the client's lawyer.

Incentive Stock Option Considerations

.24 Many large companies provide fringe benefits in the form of incentive stock option plans that allow their employees to purchase the company's stock at a certain point in time at a stated price. Employees pay no taxes when the incentive stock option is granted or when the stock option is exercised. Employees do pay tax, however, when selling the stock received through the exercise of the option. To qualify as an incentive stock option, a stock's option price must equal or exceed its FMV when the option is granted. Accordingly, the valuation of a closely held company has a significant impact on its incentive stock option plan.

Initial Public Offering

.25 A substantial amount of legal and accounting services must be rendered to bring a private business to the public marketplace. From a financial standpoint, the corporation's accounting records and statements are carefully reviewed and amended, if necessary. The capital structure may need enhancement, and executive benefit plans may need revisions. More important, the corporation's stock is valued for the initial offering.

.26 The underwriter must exercise a great deal of judgment about the price the public may be willing to pay for the stock when it is first offered for sale. Factors such as prior years' earnings, potential earnings, general stock market conditions, and stock prices of comparable or guideline companies need to be considered to determine the final offering price. The client may ask the practitioner to support the offering price by performing a valuation.

Damages Litigation

.27 Many court cases involve damages. A number seek compensation for patent infringements, illegal price fixing, breach of contract, lost profits, or lost business opportunities, while others relate to lender liability, discrimination, and wrongful death actions. The practitioner may also be asked to perform hypothetical valuations of a company to determine the amount of damages resulting from the loss of business value to the stockholders. These types of valuations generally require the valuer to value the company twice. The first valuation determines the value of the company at the present time. The second valuation is based on what the company would have been worth had a certain action taken place or not taken place. The difference is generally a measure of damages.

Insurance Claims

.28 Cases involving risk-insurance claims focus on the loss of income because of business interruptions and the value of separate business assets such as inventory and equipment. A valuation may be required to support the owner's position or the insurer's position. Loss of income would be determined on documented lost profits. The value of individual business assets such as inventory and equipment would be based on the replacement cost of the assets.

Charitable Contributions

.29 Owners of closely held businesses may wish to give all or a part of their interest in a business to a favorite charity. Although shares of stock in a closely held business are donated to charity infrequently, this option exists for owners, and the practitioner must be aware of the rules about the deductibility of such gifts. Current tax laws encourage charitable donations by permitting a tax deduction equal to the FMV of certain appreciated capital gains property. For gifts of property in excess of five hundred dollars, the IRS requires that donors provide documentation to support the deduction for the year in which the gift was given. If the amount of the tax deduction warrants the expense, donors can obtain a valuation of the gift. If the value of the gift exceeds five thousand dollars, an appraisal is required.

Eminent Domain Actions

.30 An eminent domain action takes place when government exercises its right to take over property and must compensate the owner for any resulting reduction in the value of the property. For example, a business may have to forfeit a prime location to accommodate the widening of a street. Although the

business can relocate, its value may be adversely affected during the period of the move or as a result of changing locations. An expert opinion on the monetary impact of the condemnation may be necessary to support the business owner's claim or the government's offer.

.31 As part of the business valuation, the practitioner should become familiar with the demographics of the area and should assess the impact of the change in location. In assessing the impact, the practitioner needs to remember that many valuers have said that the key to a business's success is "Location, location, location." Projections may be required in order to calculate the losses. A valuation of the business, both before the condemnation and after the move, may be required. The expenses of the actual move need to be considered in the valuation.

TAX CONSIDERATIONS

.01 During the past, income and capital gains taxes generally have not had a direct impact on the value of a closely held business. However, to the extent that tax obligations represented a liability, the practitioner considered them in determining the overall value of a closely held business. More recently, built-in capital gains taxes have become a more controversial area of valuation, particularly in light of the repeal of the General Utilities Doctrine.[6] Several Tax Court rulings have allowed these taxes to be considered by the appraiser in various ways. The practitioner should consult appropriate case law to ensure compliance with the rules.

.02 A number of tax aspects to evaluate include the form of the business, potential tax deficiencies, and IRS guidelines. Depending on the purpose and function of the valuation, IRS guidelines must be considered. IRC Section 1060 requires that purchase price allocations be reasonable and consistent. The buyer and seller in a business acquisition transaction must consider the tax aspects of the form of the acquisition (stock versus assets), noncompete agreements, goodwill, and similar items. These considerations are beyond the scope of this publication.

Form of the Business

.03 A valuer must consider the legal form of the business in analyzing the financial and other information that affects the value of the company. If the business is a proprietorship, a partnership, or an S corporation, certain tax attributes pass through to the individual owners. However, if the business is a C corporation, the entity accrues and pays income taxes. The practitioner should

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[6] IRC Section 337 was changed by the Tax Reform Act of 1986.

be aware of the tax implications of each business type and be satisfied that all tax liabilities have been considered.

.04 It is especially important that the practitioner understand the tax implications when comparing guideline company or industry information with the subject of the valuation. The practitioner needs to be certain that the information being used for comparison purposes is consistent throughout the valuation. Guideline company information, particularly from the public marketplace, is reported on an after-tax basis. Furthermore, returns on investments in the marketplace and ratios derived from the marketplace are also generally reported on an after-tax basis. Consistency is essential for the proper development of a discount rate, a capitalization rate, or a methodology derived from guideline company ratios.

Potential Tax Deficiencies

.05 The business valuer should determine whether the subject company has any potential tax deficiencies. Generally, this information is available from the company's accountant or tax preparer. If a tax provision falls into a gray area, the valuer should identify in a valuation report any contingent liabilities that may affect the entity's value, even though the liability cannot be quantified. Furthermore, the valuer must be aware that penalties for underpayment of taxes may result if the IRS disallows deductions whether they are based on the actions of the taxpayer or the tax preparer or on the valuation. To avoid penalties for willfully understating a tax liability, the valuer is careful to fully document and support any position taken in a business valuation.

Internal Revenue Service Guidelines

.06 Practitioners need to review and consider each of the following IRS guidelines in valuing a closely held business.

a. Revenue Ruling 59-60 is the most important treatise on factors to consider, at a minimum, to perform a competent valuation.

b. Revenue Ruling 65-192 modifies Revenue Ruling 59-60 by providing that the theory in 59-60 is applicable to income and other taxes as well as to estate and gift taxes.

c. Revenue Ruling 65-193[7] modifies Revenue Ruling 59-60 by deleting several statements about the separation of tangible and intangible assets.

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[7] Revenue Ruling 65-193, 1965-2 C.B. 370.

d. Revenue Procedure 66-49[8] addresses how the IRS arrives at valuations. It also provides additional insight into how a practitioner might report information to a client in a valuation report.

e. Revenue Ruling 68-609 discusses the framework for applying the "formula approach" to valuing intangible assets. This is also the conceptual foundation for the "excess earnings method" of appraisal. This ruling clarifies and expands ARM 34 with regard to rates of return. (Practitioners should note that the rates provided in Revenue Ruling 68-609 are examples only and are not intended to be the only rates used in the application of this methodology.)

f. Revenue Procedure 77-12[9] describes acceptable methods for allocating a lump-sum purchase price to inventories in situations where a corporation purchases the assets of a business containing inventory or where a corporation acquires assets including inventory by the liquidation of a subsidiary pursuant to provisions of IRC Section 332 and the basis of the inventory is determined under IRC Section 334(b)(2).

g. Revenue Ruling 77-287[10] was intended "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." This revenue ruling covers marketability discounts related to restricted stock.

h. Revenue Ruling 83-120[11] amplifies Revenue Ruling 59-60 by specifying additional factors to be considered in valuing common and preferred stock of a closely held corporation for gift tax and recapitalization purposes.

i. Revenue Ruling 85-75[12] basically provides that the IRS will not be bound to accept values that it accepted for estate tax purposes as the basis for determining depreciation deductions or income taxes on capital gains from a subsequent asset sale.

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[8] Revenue Procedure 66-49, 1966-2 C.B. 1257.
[9] Revenue Procedure 77-12, 1977-1 C.B. 569.
[10] Revenue Ruling 77-287, 1977-2 C.B. 319.
[11] Revenue Ruling 83-120, 1983-2 C.B. 170.
[12] Revenue Ruling 85-75, 1975-1, C.B. 376.

j. Revenue Ruling 93-12,[13] which revoked Revenue Ruling 81-253,[14] allows appropriate minority discounts to be applied in a gift tax context when valuing minority interests of family members in the closely held corporation. Formerly, the IRS looked to family attribution rules as a means to disallow these minority discounts.

k. Technical Advice Memorandum 94-36005[15] discusses the concept of applying a "swing premium" in which a gift of a minority interest among family members creates a swing vote among the stockholders.

l. Although not covered in this publication, practitioners must be aware of the Chapter 14 requirements found in IRC Sections 2701 through 2704.

m. The publication *IRS Valuation Guide For Income, Estate and Gift Taxes—The IRS Appeals Officer Valuation Training Program*[16] provides a detailed review of IRS positions on valuations.

VALUATION CONCEPTS

.01 Time has proven that expert valuation of closely held businesses combines both art and science. The business valuer finds that the valuation results will vary according to the methods used, and frequently the most difficult part of an engagement is to reconcile the various values derived through different acceptable valuation techniques.

.02 The complexity of the valuation process can cause the inexperienced practitioner to make mistakes. Often overlooked are two of the fundamental principles in valuation theory, the principle of substitution and the principle of future benefits.

.03 The principle of substitution states that "the value of a thing tends to be determined by the cost of acquiring an equally desirable substitute,"[17] while the principle of future benefits states that "economic value reflects anticipated future benefits."[18] These two valuation principles are as important to the valuation

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[13] Revenue Ruling 93-12, 1993-1 C.B. 202, revoking Revenue Ruling 81-253, 1981-1 C.B. 187.
[14] Revenue Ruling 81-253, 1981-1 C.B. 187, revoked by Revenue Ruling 93-12.
[15] Technical Advice Memorandum 94-36005, March 26, 1994.
[16] *IRS Valuation Guide For Income, Estate and Gift Taxes—The IRS Appeals Officer Valuation Training Program*. Chicago: Commerce Clearing House, 1998.
[17] Raymond C. Miles. *Basic Business Appraisal.* New York: John Wiley & Sons, 1984, p.22.
[18] Ibid., p. 27.

process as the laws of supply and demand are to economics. Valuation theory is driven by these very important principles.

Standard of Value

.04 The standard of value to be used in a valuation will depend upon the purpose of the business valuation engagement, rather than the client of the appraiser. Basing the choice of a standard of value on which party the practitioner represents is considered inappropriate advocacy and, therefore, should be avoided.

.05 Many standards of value are widely accepted. In a number of instances, they are included in statutes or in case law, but usually they vary from jurisdiction to jurisdiction. Some of the more frequently used standards of value are fair market value (FMV), fair value, investment value, and intrinsic value.

.06 ***Fair Market Value (FMV).*** Probably the most commonly used standard of value is fair market value. Revenue Ruling 59-60 defines FMV as follows:

> [T]he 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.

.07 ***Fair Value.*** The definition of fair value in a business valuation context varies from state to state. The definition has been developed from case law, primarily in dissenting and oppressed stockholder actions. The practitioner should obtain the definition of value from the client's legal counsel based on the case law in the jurisdiction in which the litigation will take place.

.08 ***Investment Value.*** The investment value of a closely held company is the value to a particular buyer as compared with the population of willing buyers. This concept is sometimes also called strategic value. The investor may have specific investment criteria that must be fulfilled in an acquisition. For example, a purchaser may decide that, as owner-manager, his or her compensation must be at least $90,000 per year. In addition, the business must have the ability to pay any indebtedness resulting from the purchase from operating cash flow over a period of no longer than five years. This value is specific to the individual rather than to all prospective purchasers on the open market, whose standard would be fair market value.

.09 ***Intrinsic Value.*** Intrinsic value is usually used by a financial analyst to value stock. The intrinsic value of a stock is generally considered to be the value based on all the facts and circumstances of the business or the investment.

Financial analysts in a brokerage firm often ignore the fluctuations of the stock market in determining the intrinsic value of a specific stock.

Choosing the Appropriate Standard of Value

.10 As mentioned earlier, the appropriate standard of value and valuation methods depends upon the purpose and function of the engagement. For example, if the engagement is for estate and gift tax purposes, the standard of value will be FMV and the emphasis will be on methods suggested in Revenue Ruling 59-60, which will use data from the marketplace, particularly from guideline companies.[19]

.11 In a dissenting stockholder lawsuit, the standard of fair value, which varies according to state law, would generally be used. Potential acquisitions would be based on either investment value or FMV with an emphasis on discounted cash flow methods of valuation. Marital dissolutions frequently rely on FMV, although the definition of this standard of value in a non-tax context varies from state to state. The valuation methods will depend on case law in the jurisdiction of the divorce, as well as the standard of value selected for the proceedings.

PREMISES OF VALUATION

.01 Two fundamental premises on which a company may be valued are (*a*) as a going concern and (*b*) as if in liquidation. The value of a company is deemed to be the higher of the two values determined under either a going-concern valuation or a liquidation valuation. This approach is consistent with the real estate appraisal concept of highest and best use, which requires an appraiser to consider the optimum use of the property being appraised under current market conditions.

.02 Generally, a business's highest and best use is considered to be the same line of business as is currently being conducted. If a business will command a higher price as a going concern, then it should be valued as such. Conversely, if a business will command a higher price if it is liquidated, then it should be valued as if in orderly liquidation. However, in all business valuation assignments, the purpose of the engagement will play an important role in determining the appropriate methods to be used.

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[19] Revenue Ruling 59-60 discusses comparative companies, but the term promulgated by the American Society of Appraisers is *guideline companies.* This term implies that no two companies are truly comparable, but information about companies similar to the one being valued can provide guidance in the valuation process.

Approaches to Value

.03 Going-concern value is based upon the company's earnings power and cash generation capability as it continues in business. The foundation for business valuation methodology is similar to that which has been used in valuing real property for many years. The three basic approaches to determine value as a going concern that should be considered by the appraiser are the following:

- The market approach
- The asset-based approach
- The income approach

.04 Within each of these approaches, there are many acceptable valuation methods. Professional appraisal organizations, as well as the USPAP, require the valuer to consider as many methods as may be applicable to the facts and circumstances of the property being valued. It is then up to the valuer's informed judgment to reconcile the results of these various methods and arrive at a final value.

.05 ***The Market Approach.*** The market approach is the most direct approach for establishing the market value of a business. The methods included in this approach are the guideline company method, the transaction (merger and acquisition) method, and various industry methods or rules of thumb. These methods are used to determine the value of the entire business enterprise rather than only components thereof. Each of these methods has distinct advantages and disadvantages.

.06 ***Guideline Company Method.*** As mentioned previously, the term *comparable companies* has generally been replaced with the term *guideline companies*. Some valuation methods apply ratios that are derived from a group of guideline companies in the public marketplace that are considered somewhat comparable to the valuation subject. The most widely known procedure is the application of a price earnings ratio to the valuation subject in order to estimate its value.

.07 Although this method is common, other ratios may be used as well. The commonly used ratios include the following:

- Price/net earnings
- Price/pretax earnings
- Price/cash flow
- Price/revenues
- Price/dividend capacity or dividend yield

- Price/operating income
- Price/gross profit
- Price/book value

In the debt-free application of this method, price may also be represented by the market value of invested capital (debt+equity).

.08 In using these ratios, the practitioner should be aware that earnings and cash flow are defined in various ways. Some appraisers will use gross cash flow while others will use net cash flow. Most experienced practitioners will generally use gross cash flow in the application of a cash flow pricing ratio, but that may not always be the case. A discussion of cash flow is beyond the scope of this publication. However, the practitioner is advised to consult valuation literature on the subject in order to obtain a sufficient understanding of these methods.

.09 Once the ratios are derived from the marketplace, they must be adjusted to the differences between the valuation subject and the guideline companies. Generally, risk and other characteristics play an important part in the process of adjusting the ratios. To make adjustments, the practitioner considers at least the following factors:

- Economic risk
- Business risk
- Operating risk
- Financial risk
- Asset risk
- Product risk
- Market risk
- Technological risk
- Regulatory risk
- Legal risk

.10 There are many other risk factors that should also be considered as to why the multiples derived from the public market may need to be adjusted for the subject company. Practitioners must consider all relevant information.

.11 The advantage of using ratios of guideline publicly traded companies is that the prices in the stock market are set by many transactions between actual buyers and sellers. A disadvantage of using this methodology is that it is difficult to find companies similar enough to the valuation subject and, therefore, such comparisons are frequently suspect. Another disadvantage is that trading on the public stock market consists of minority stock transactions. It is difficult to compare a marketable minority interest to a nonmarketable controlling interest, which is frequently the task at hand.

.12 A third disadvantage is that information is frequently calculated differently depending on the source of data, and incorrect conclusions can result if the valuer is not careful to ensure consistency in the application of the methodologies. For example, the price earnings ratios can be based on the last twelve months' earnings, the last fiscal year's earnings, or the next fiscal year's forecasted earnings. Each of these produces a different ratio. Therefore, the practitioner needs to be careful.

.13 ***Transaction Method.*** To use the transaction method, the valuer locates similar companies that have been bought or sold and compares them with the subject of the valuation. For example, if the valuation subject were a hardware store, the valuer could search for the sale prices of ten hardware stores that were similar to the valuation subject. If each of the ten hardware stores sold for $200,000, the logical conclusion would be that the valuation subject would also be worth $200,000.

.14 Larger valuation assignments allow the valuer to search for transactions using databases such as those that are maintained by Securities Data Company or Done Deals, or that appear in publications such as Mergerstat Review. These sources provide information about transactions that have taken place, usually of a larger nature.

.15 Smaller valuation assignments will require the appraiser to be aware of databases such as that which is maintained by the Institute of Business Appraisers, or databases such as BizComps and Pratt's Stats. These sources provide information about smaller transactions involving closely held businesses.

.16 The advantage of the transaction method is that it uses actual market data to determine market values. Also, it is easily understood by laypersons, and as such, is a popular method to be used before jurors if the valuation will be used in expert testimony.

.17 The disadvantage of the transaction method is that it requires a reasonably active market for the type of business being valued. Information is more readily available for larger companies because stocks are traded publicly on a daily basis. Smaller closely held businesses, however, are not traded as frequently, and, therefore, information about such transfers is generally very difficult to obtain.

.18 Another disadvantage of this method is that the valuer will not always know which assets and/or liabilities were part of the transaction or, sometimes, the terms of the transaction. For example, if a dental practice sells for some percentage of gross revenues, what is being sold? Frequently, the sales price includes all intangibles, leasehold interests, and fixed assets. Excluded is cash,

accounts receivable, a company car, and all liabilities. These items would have to be added or subtracted to value the equity of the practice.

.19 ***Industry Methods (Rules of Thumb).*** Many industries and professions use rule-of-thumb formulas to determine value. However, if these formulas are the only methods used, an inappropriate valuation may result. Nevertheless, the valuer should not ignore what is being done in the industry. Frequently, an industry rule of thumb provides a representation of the perception that people have in the marketplace and should be one of the methods considered in valuing the closely held business.

.20 Relying on an uninformed rule of thumb can be dangerous. For example, the rule of thumb for the valuation of an accounting practice is that it is typically valued at between 50 and 150 percent of gross fees. Therefore, an accounting firm with gross billings of $500,000 per year would be between $250,000 and $750,000. This wide range should indicate the potential danger of applying an uninformed rule of thumb. In reality, after an investigation of the quality of the practice, the nature of the clients (whether they are audit, accounting, tax, or consulting clients), the collection history of the clients, and many other qualitative factors, the practitioner may determine that the value should be based on gross fees, but that it will be narrowed down with informed judgment. The practitioner avoids pulling a percentage out of thin air and, if possible, quantifies any factors used in the valuation process.

.21 For those industries that have a considerable amount of merger and acquisition activity, a valuer can often telephone the treasurers or chief financial officers of closely held companies to find out the valuation methodologies they use. After calling several of these people, the practitioner may have a better understanding of what rules of thumb are being used in the industry. The practitioner must be careful, however, because the terms of each merger or acquisition transaction may have an impact on the value. The advantage of a rule of thumb is it provides a reality check on the other valuation methods used by the valuer.

.22 Several publications provide rules of thumb and describe what is occurring in the marketplace. However, these publications may not provide the same rules of thumb for an industry.[20]

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[20] Industry information is provided in the following.

Glenn M. Desmond and John A. Marcello. *Handbook of Small Business Valuation Formulas.* Los Angeles: Valuation Press, 1993.

Thomas L. West. *Business Broker's Reference Guide.* Concord, MA: Business Brokerage Press, updated annually.

.23 ***The Asset-Based Approach.*** The asset-based approach to valuation is also referred to *as the cost approach* or the *replacement cost approach.* With this approach, each component of a business (including the liabilities) is valued separately. The values are totaled and the liabilities are subtracted to derive the total value of the enterprise. The valuer estimates value as the cost of replacing the individual assets and liabilities of the business. This approach cannot be used alone because it cannot be applied easily to intangible assets. Included in this approach are the adjusted book value method and the liquidation value method.

.24 ***Adjusted Book Value Method.*** The most commonly used method in the asset-based approach is the adjusted book value method. In this method, all of the subject's assets and liabilities are valued at FMV as of a certain valuation date. The practitioner needs to be careful to avoid a frequent error in applying this method. The error is to reduce the value of the assets and liabilities to provide for capital gains taxes in the event these assets are sold. However, the purpose and function of the valuation assignment may require built-in capital gains taxes to be considered in order to properly determine the value of the company.

.25 The adjusted book value method is often used to appraise not-for-profit organizations and such asset intensive businesses as holding companies, manufacturing companies, and some distribution companies. It is generally not used to value service businesses and distribution businesses that have few tangible assets. Nor is it usually used to appraise intangible assets or minority interests of stockholders who have no control over the sale of the assets. However, this method is frequently used in the valuation of family limited partnership interests (and similar entities) with a discount being applied for lack of control.

.26 ***Liquidation Value Method.*** Another method under the asset-based approach is the liquidation value method. Liquidation value assumes that a business has a greater value if its individual assets are sold to the highest bidder and the company ceases to be a going concern. According to Shannon Pratt, an authority in business valuation, "Liquidation value is, in essence, the antithesis of going-concern value. Liquidation value means the net amount the owner can realize if the business is terminated and the assets sold off in piecemeal."[21] Pratt further states

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Thomas L. West and Jeffrey D. Jones. *Handbook of Business Valuation.* New York: John Wiley & Sons, Inc., 1999.

[21] Pratt, *Valuing A Business.* Homewood, IL: Dow Jones-Irwin, 1989, p. 29.

> [I]t is essential to recognize all costs associated with the enterprise's liquidation. These costs normally include commissions, the administrative costs of keeping the company alive until the liquidation is completed, taxes, and legal and accounting costs. Also, in computing the present value of the business on a liquidation basis, it is necessary to discount the estimated net proceeds at a rate reflecting the risk involved from the time the net proceeds are expected to be received back to the valuation date.[22]

Therefore, the liquidation value of the business is usually less than the liquidation value of its assets.

.27 ***The Income Approach.*** The income approach to valuation is based on the assumption that an investor would invest in a property with similar investment characteristics, but not necessarily the same business. The computations used with the income approach generally determine the value of the business to be equal to the expected future benefits divided by a rate of return adjusted for growth. This approach involves capitalization, which is the process of converting a benefit stream into value. The value derived is the value of the operating assets and liabilities of the entity. The nonoperating or investment assets are then added to the value as determined to obtain the value of the enterprise.

.28 Some of the valuation methods included in the income approach are the following:

- Capitalization of benefits method
- Discounted future benefits method
- Excess earnings method

.29 To use the income approach, the valuer must select the appropriate benefits stream to be capitalized or discounted. The benefits may include after-tax income, pretax earnings, cash flow, dividends, excess earnings, earnings before interest and taxes (EBIT), earnings before interest, taxes, depreciation, and amortization (EBITDA), or any other elements considered to be appropriate under the circumstances. The capitalization rate or discount rate to be used will vary according to the benefits stream being capitalized or discounted. A common error is to apply the same rate to different benefits streams. The reasons for using different rates are discussed under "Discount and Capitalization Rates."

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22 *Ibid.*

.30 ***Capitalization of Benefits Method.*** The capitalization of benefits method places a value on a single benefit stream that is forecast to be consistent in the future. This assumes that the income stream is fairly stable. This method can be expressed in the following formula:

Value = Benefits ÷ Rate

Where

Benefits = After-tax earnings
Pretax earnings
Gross cash flow
Net cash flow
Dividends
EBIT
EBITDA
Other appropriate elements

Rate = Required rate of return adjusted for growth applicable to the benefits stream capitalized

.31 The benefits stream to be capitalized can vary. Some valuers prefer to use cash flow rather than earnings, but there is no single approach. Each valuation will depend on the availability of data. Cash flow may be more appropriate if it is known that capital expenditures, debt repayment, or working capital are necessary to finance future growth.

.32 The starting point in this method of valuation is to obtain or prepare historical financial statements for an appropriate period, usually five years. These statements are then normalized. Different normalization adjustments will be appropriate depending on the interest being valued. Since minority interests, in many cases, have a lack of control over the items being adjusted, certain normalization adjustments may not be appropriate for an interest that does not possess the ability to control these items. This normalization process involves adjusting items in the financial statements that are not considered to be normal operating expenses for the core business. The result should be economic financial statements rather than those that are oriented to either GAAP or tax considerations. Some of the items commonly adjusted in the financial statements can be grouped into the following categories:

- GAAP adjustments
- Nonoperating/nonrecurring adjustments
- Discretionary adjustments

.33 Some of the more common discretionary adjustments made, particularly for controlling interests, include the following:

- Owner's compensation
- Owner's perquisites
- Entertainment expenses
- Automobile expenses
- Compensation to family members
- Rent expenses (if not an arm's-length lease)
- Interest expenses
- Depreciation or amortization

.34 Once the financial statements have been normalized, the valuer uses the adjusted information as a basis for the valuation. This information can then be used to forecast the future operating results of the business as well as analyze the economic return to the owner. The practitioner should not average the historical figures unless the outcome reflects the anticipated financial results of the subject business.

.35 ***Discounted Future Benefits Method.*** The discounted future benefits method is used if the earnings or cash flow of the valuation subject is expected to differ substantially from current operating results. This method requires that a forecast be made for an appropriate number of years. The forecasted results are then discounted to present value based upon a rate of return that reflects the risk associated with the benefits stream.

.36 Although there is no consensus among valuers about the number of years to be forecast, good valuation practice indicates that the period to be used includes the year after a stabilized benefits stream is achieved. Here also, the practitioner should avoid a common error of resorting to a five- or ten-year period, which may not always be appropriate.

.37 The formula used to estimate value under this method is illustrated in table 1, "Application of Discounted Future Benefits Formula."

.38 ***Excess Earnings Method.*** The excess earnings method, which is also known as the formula approach, is probably the most widely used method of appraisal, particularly for small businesses and professional practices. This

hybrid of the asset-based approach and the income approach is based on Revenue Ruling 68-609, which provides a method for valuing intangible assets.

.39 The excess earnings method involves valuing the subject's tangible assets and liabilities at fair market value and adding an amount that represents its intangible value. The net tangible assets are valued according to the adjusted book value method, which was described earlier. The capitalization of excess earnings is used to value the intangibles.

TABLE 1
Application of Discounted Future Benefits Formula

$$\sum \frac{I_n}{(1+i)^r} + \frac{TV_t}{(1+i)^t}$$

Where

I	=	Forecasted income (cash flow)
n	=	Year in which the income is achieved
i	=	Required rate of return.
TV	=	Terminal value, which is the estimated income stream during the stabilized period.
t	=	Year of stabilization

The following illustrates the application of the formula:

Year	Forecasted Net Income	Present Value Factor Using a 26% Discount Rate	Present Value of Future Income
1	$ 750,000	0.79365	$ 595,000
2	413,000	0.62988	260,000
3	530,000	0.49991	265,000
4	814,000	0.39675	323,000
5	915,000	0.31488	288,000
TV	$4,098,000[23]	0.31488[24]	$ 1,290,000
			$ 3,021,000

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[23] *TV* calculated as follows: $915,000 x 1.03 (assumed growth) = $ 942,500; Discount rate minus growth (.26 - .03) = .23

Capitalizing $942,500 at 23% = $4,098,000

[24] The terminal value is usually discounted at the same rate as the final year of the forecast.

.40 Excess earnings are derived by forecasting normalized annual net income for the entity as is done in other income-approach methods. Then, a reasonable return on the net tangible assets is subtracted from the normalized net income to determine the excess earnings. These excess earnings are then capitalized to arrive at the intangible value of the enterprise.

.41 The practitioner needs to understand the theoretical basis of this method to avoid making many of the common errors that can occur. The following are important guidelines for using this method.

- Because valuation is a "prophecy of the future," the valuer should estimate the normalized annual future income. A common error is to calculate a weighted average net income for the five prior years. The revenue rulings make clear that using a weighted average is incorrect unless it reasonably reflects future expectations.

- The reasonable return on the net tangible assets should be based on the level of risk associated with these assets, as well as the returns available in the market. The theory behind this assumption is that if a business owner invested in an investment other than the business assets, a return on investment would be received. Therefore, the investment in assets should also generate a return on investment that is unrelated to the intangible value of the enterprise.

- The return on investment can be determined by reviewing what other investments are paying. For example, if an investor can buy U.S. Treasury Bonds and receive an 8-percent return, the return on accounts receivable, furniture, machinery, and so forth, should be higher to reflect the amount of risk related to the investment in these assets.

- A common error to avoid is considering the example return of 8 to 10 percent given in Revenue Ruling 68-609 as gospel. The rate must reflect risk and can differ from the example, depending on the valuation date, composition of the assets, and other factors.

- The capitalization rate chosen must reflect the appropriate amount of risk relating to intangible assets. The example of 15 to 20 percent in Revenue Ruling 68-609 may be inappropriate. Generally, the capitalization rate for intangible assets will be higher than 20 percent. (See the discussion on capitalization rates.)

- The excess earnings method should be used only if no better method is available to determine the value of the intangibles. Frequently, the

enterprise can be valued with a different method, possibly from an income approach that calculates the tangible and intangible value.

ANALYZING FINANCIAL RATIOS

.01 Before a business valuer can determine the appropriate pricing multiples, discount rates, or capitalization rates that will be used in a particular valuation assignment, he or she should analyze the financial information provided in the assignment to determine the level of risk associated with the appraisal subject. An important component of the financial risk assessment includes a financial ratio analysis.

.02 The power of financial ratios is the ability to reduce complex data from financial statements into a readily usable form. Leopold Bernstein said it a little more eloquently.

> The analysis of a ratio can disclose relationships as well as basis of comparison which reveal conditions and trends that cannot be detected by an inspection of the individual components.[25]

Ratios may be used to measure a business' liquidity, solvency, productivity, and other indicators of business health versus historical data for the subject company or other companies in the industry. Ratio analysis is an excellent tool to determine the strengths and weaknesses of a company's management, capital structure, and operations that will allow an analyst to better understand the well being of a company and make informed decisions about the company's future.

.03 Financial ratio analysis is a flexible decision support tool that can be utilized in many situations. Some typical applications of financial ratio analysis extend beyond a business valuation assignment. Nonbusiness valuers may use this analysis for the following:

- Specific measures of performance can help a client evaluate past performance and possibly set objectives for future performance.
- Analysis can help a client evaluate its financial performance in relation to the industry's performance as a whole.
- Analysis can assist a client in determining whether or not to extend credit to a customer.

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[25] Leopold Bernstein. *Financial Statement Analysis.* Homewood, IL: Richard D. Irwin, Inc., 1974.

- Analysis can assist a client in evaluating a proposed acquisition by determining the financial strengths and weaknesses of the company to be acquired.

- Historical financial ratio analysis can be used as an effective preliminary step in preparing a budget or in making a forecast.

- Financial ratio analysis can be used as an initial indicator to determine if there are problems in aging accounts receivable, inventory, and accounts payable.

- Analysis can assist in comparing operations or divisions within a company to evaluate performance or to allocate capital resources.

.04 In business valuation, financial ratio analysis is an invaluable tool that aids an analyst in determining the health of a business enterprise. Whether deciding if a company can pay down its debt, or forecasting future cash flows, an analyst may use financial ratios as an indicator of future performance. Ratio trends are vital to the estimation of the future cash flows of a business. Understanding the manner in which a company historically manages its assets and liabilities, records expenses, and invests in new opportunities is necessary to predict future performance. Financial ratios will allow an analyst to recognize trends in the historical financial statements. Overall, financial ratio analysis is an invaluable tool that is used in virtually all business valuations. A strong foundation in financial ratio basics is a must for anyone performing a business valuation.

.05 The use of a financial ratio checklist for all audited or reviewed financial statements and in selected compilation engagements can be helpful. The findings from the checklist can be included in a management letter and reviewed with the client to determine whether further action is required.

FINANCIAL RATIO ANALYSIS CONSIDERATIONS

.01 Financial ratio analysis engagements, including business valuations, address important considerations that can be critical to a client's ultimate financial decisions. A client may request assistance if management or staff lack the knowledge or time to perform such an analysis. The client may also want the practitioner to serve as a sounding board.

.02 In discussing the engagement with the client, the practitioner needs to effectively communicate to the client the considerations involved, the objectives to be achieved, the assumptions to be used, and the specific roles of the client's personnel and the practitioner. Of special importance is the relationship of the assumptions to the conclusions or recommendations. Both client and practitioner

need to agree that conclusions or recommendations will be based on a set of assumptions or facts at a particular time. Any change in these assumptions, facts, or time frame may have a significant impact on the results.

.03 Another important consideration is the approach to be taken in the engagement. Financial ratio analysis can involve many sophisticated methods and techniques that may enhance the recommendations or conclusions. However, if the approach used cannot be effectively explained to and understood by a client, the value of the engagement may be diminished. Simply put, the practitioner needs to be careful to select an approach that is appropriate in the circumstances.

.04 Before accepting a specific engagement, practitioners should consider their own level of knowledge as well as the knowledge obtainable through study or other resources.

.05 Financial ratio analysis, as a quantitative approach, may appear to be easily learned and applied, but pitfalls such as the following are to be avoided.

- If historical analysis covers an insufficient number of years, the practitioner may misinterpret trends and current performance. For example, if the analysis covers only a two-year period in which substantial capital investments were made, any ratio using total assets or net income will be affected by the capital investment.

- Failing to use an average or weighted average when applicable can distort ratios. For example, if the average accounts receivable balance is $300,000, the ending balance is $500,000, and credit sales for the year are $3 million, the days sales outstanding would be thirty days, based on the average balance, as opposed to sixty days, based on the ending balance.

- Selecting an inappropriate basis for comparison can result in misleading conclusions. For example, a client may be a privately held, large-chain retailer. Using comparative information derived from single-unit or small retailers may produce misleading results. A more meaningful comparative analysis might involve data about selected multiunit competitors that are public companies, which would be found in their Securities and Exchange Commission (SEC) 10K reports.

- Most sources of comparative information do not always disclose the accounting methods used by the companies from which the figures or ratios have been compiled. Thus, considering the client's industry, the practitioner assesses the potential impact the differences in accounting methods might have on the findings of comparative analysis.

- The basis of the comparative analysis may be affected by the nature of the business, its size, geographic location, business practices, and other factors that may introduce differences between the client company and the comparable companies.

ENGAGEMENT OBJECTIVES AND CLIENT BENEFITS

.01 The objectives of an engagement involving financial ratio analysis are to (*a*) identify the appropriate facts, (*b*) determine the ratios to be studied, and (*c*) select the most appropriate comparative data.

.02 For example, the engagement objectives for the sample analysis included in this publication are—

- To complete an historical and comparative financial ratio analysis of XYZ Bar and Grill, Inc., to be used in a business valuation assignment.
- To prepare a narrative report identifying any positive or negative trends based on the interpretation of the financial ratios.
- To provide the findings of the analysis, including all supporting notes and assumptions.

.03 A financial ratio analysis engagement may provide the following direct benefits to clients:

- An evaluation of prior performance by comparison with the industry's performance. (This assessment enables a client to identify its financial strengths and weaknesses, as well as risks associated with ongoing operations.)
- The ability to set expected financial objectives based on prior performance or industry performance
- The ability to transform a difficult loan request into an attainable goal
- A decision criterion for granting credit

.04 In a business valuation assignment, the analyst will concentrate on the first direct benefit listed, but at times, an analyst will be called on to provide many, if not all, of these services.

.05 In addition to the direct benefits, the following indirect benefits may result from a financial analysis engagement:

- A greater awareness of the interrelationship of the financial statements
- A greater understanding of the financial statements and how their analysis may lead to improved profitability or cash flow
- An ongoing means to evaluate financially a company's performance
- The gaining of useful information concerning competitors

ENGAGEMENT SCOPE

.01 To avoid misunderstandings, the practitioner needs to be precise in defining the scope of an engagement. The practitioner clearly states the extent of the analysis, identifies the work to be performed by a client or other personnel, and specifies any constraints or limitations on resources or alternatives. For example, a company may have several divisions, but calculating each ratio for each division may not be cost effective. In addition, the practitioner makes clear when the engagement is to be considered concluded and might also include information regarding follow-up engagements.

.02 In the illustrative engagement provided in appendix A, the scope involves a five-year historical and comparative financial ratio analysis. The ratios used include those published by sources of comparative information and those commonly used for financial analysis. To select the sources of comparative data, the client company must find the closest match with its industry's Standard Industry Classification (SIC) or North American Industry Classification System (NAICS) code. Client personnel provide average balances for specified accounts. The practitioner comments on the historical trends and on the comparability of each ratio and makes appropriate recommendations.

ENGAGEMENT APPROACH

.01 To select an appropriate approach to the engagement, the practitioner needs to decide the following:

- What type of ratios need to be emphasized
- Which information is most comparable with that of the client's business
- What period of time the analysis should cover

.02 Because various approaches are possible, the practitioner and client need to agree on the approach to be used. If the practitioner does not have an

adequate understanding of the client's business and of the objectives of the engagement, the wrong approach may be selected.

.03 The steps in a financial ratio analysis engagement are divided into two categories: preparation and analysis.

Preparation

.04 The following steps are part of the preparation.

- Meet with the client to identify objectives and key ratios.
- Obtain required financial statements and explanations.
- Determine whether a formal, written report is required and the nature and extent of its contents.
- With the client's assistance, determine the comparative data to be used.

Analysis

.05 Analysis involves the following steps.

- Select the specific ratios to be used. (Appendix B, "Financial Ratios," provides a listing of common ratios and their formulas and interpretations.)
- Determine the data needed for calculating ratios.
- Determine the data missing from the comparable sources and provide alternative means to develop these data. For example, if the amount of working capital is an important comparative figure but the comparable source gives only balance sheet amounts expressed in percentages, total asset dollars, and the number of reporting sources, the practitioner can determine the amount of working capital by calculating the average total assets and comparing the percentages of current assets and current liabilities to the average assets.
- Develop working papers to spread appropriate data so that it is easier to calculate and interpret the ratios.
- Calculate client ratios.

- Reconcile accounting differences between the client and comparable sources of information. These differences may be in accounting methods, ages of assets, or financing techniques.

- Compare the client's ratios to the comparative ratios and, if appropriate, indicate the possible causes of differences.

ENGAGEMENT OUTPUTS

.01 The results of a financial ratio analysis may be reported in various ways. One way is to present a summary of timings along with explanations of the calculations, approaches, assumptions, and other data and notes that clearly describe the analysis process. In a number of situations, recommendations based on the results of the findings may be given.

.02 The engagement output for the illustration in this publication includes the following:

- A one-page summary of findings

- The historical ratios

- The comparative ratios

- Comments on the trend and interpretation of each ratio

.03 Interview notes, memos, worksheets, and other source documents not pertinent to the report generally become part of the practitioner's own files.

DISCOUNT AND CAPITALIZATION RATES

.01 One of the most difficult tasks the business valuer faces is selecting an appropriate discount or capitalization rate. Before making a selection, however, the valuer must understand the distinction between these two rates. Although the terms *discount rate* and *capitalization rate* are often used interchangeably, the rates are, in fact, different.

.02 The discount rate represents the rate of return that an investor requires to justify investing in an asset because of the amount of risk associated with the investment. For example, an investor may expect a 5-percent return on a certificate of deposit from a bank, a 10-percent return on a corporate bond, and a 20-percent return on junk bonds. Usually, the higher the risk, the higher the

required return. The discount rate is used to derive the present value factors, which are used to discount a stream of future benefits to their present value.

.03 Depending upon the information available from the market, a valuer will use either a pretax or after-tax discount or capitalization rate. This will primarily depend upon how the typical buyers and sellers are motivated in consummating transactions. The resulting value will be the same regardless of whether a pretax or an after-tax rate is used. This can be illustrated by the following example.

.04 Assume that the value of XYZ, Inc. is being determined using a capitalization of income method. XYZ, Inc. has a forecasted pretax income of $100,000 and an after-tax income of $65,000 (assumes a 35-percent tax rate). If the valuer has determined that the appropriate capitalization rate based on after-tax information in the market was 13 percent, the valuation result would be as follows.

	After-tax	Pretax
Forecasted Income	$ 65,000	$100,000
Capitalization Rate	13%	20%[2]
Estimated Value	$500,000[1]	$500,000[3]

[1]$65,000 ÷ .13 = $500,000
[2]13 ÷ (1 - .35) = 20%
[3]$100,000 ÷ .20 = $500,000

.05 A capitalization rate is generally derived from the subject's discount rate. It is used primarily as a divisor to determine value. The basis of the relationship between the discount and capitalization is the assumption that the business has a perpetual life and its average annual growth will be constant. The relationship is expressed as follows:

Discount Rate - Growth Rate = Capitalization Rate

.06 The valuer needs to use informed judgment in selecting the growth rate. The company's historical growth, the projected growth of the industry, and many other factors (including but not limited to management goals, ability to achieve desired growth, borrowing power) should be considered in the determination of the growth rate. The rate should reflect the present value of the average annual long-term growth rather than only that which is projected for the following year. The practitioner needs to apply good judgment because an exceptionally high growth rate may not be achievable by the company. Experts in finance generally expect the long-term growth of a company to average from 3 to 5 percent.

However, higher growth rates can be appropriate if short-term growth is expected to be higher. Regardless of the rate used, the valuer should support the growth rate selected.

.07 The discount and capitalization rates used will depend on what is being discounted or capitalized. The possibilities include the following:

- Net earnings (after-tax)
- Net income (pretax)
- Gross cash flow[26]
- Net cash flow[27]
- Excess earnings
- Dividends/dividend-paying capacity
- EBIT
- EBITDA

.08 The determination of what will be discounted or capitalized will depend on various factors, including availability and reliability of data. The amount of risk associated with the valuation subject should be the major consideration in determining an appropriate rate. The assessment of this risk is of great importance throughout the valuation process. The valuer also considers the alternative rates of return on comparable investments available to the "willing buyer." This is the principle of substitution at work.

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[26]
	Normalized Net Income
+	Normalized Noncash Charges
	Gross Cash Flow

Both gross cash flow and net cash flow (see footnote 27) as used in the valuation context differ from the traditional accounting definitions as described in FASB 95. The valuer is recommended to consult authoritative literature in performing these types of engagements.

[27]
	Gross Cash Flow
-	Anticipated Capital Expenditures
- (or +)	Working Capital necessary to support growth (or generated due to negative growth)
- (or +)	Debt balance due to borrowings forecasted to fund growth net of principal repayments
	Net Cash Flow

.09 Revenue Ruling 59-60 lists eight factors to consider in valuing a closely held stock. The factors include "the economic outlook in general and the condition and outlook of the specific industry in particular." Many practitioners include an analysis of the economy and the industry in their valuation reports. This analysis assists in determining appropriate discount or capitalization rates.

.10 The three primary reasons for performing this analysis are to—

- Assess the valuation subject's performance compared with the company's industry given the general economic conditions.
- Forecast financial results for the company based on the outlook for both the economy and the industry.
- Determine how much risk the entity is subject to as a result of economic and industry conditions and what effect this risk will have on the required rate of return.

.11 The benefit of this economic analysis is illustrated in the case of the fictional XYZ Furniture Store. During the economic analysis phase of the engagement, the practitioner finds that the number of building permits issued and housing starts in the local area have decreased considerably and is not expected to increase in the near future. This information is important to the valuation because, as the practitioner learned through research, the retail furniture industry generally lags six months behind the real estate market. If people do not buy houses, they do not buy new furniture.

.12 The impact of this information on the valuation may be twofold. First, the forecast may need to be adjusted if the expected results can be determined. Second, the discount or capitalization rate may need to be adjusted to reflect the risk in purchasing a furniture store when a weak real estate market is predicted.

.13 There are two primary methods of determining discount rates: the buildup method and the capital asset pricing model (CAPM). These two methods use the same components but apply them differently. These components are the safe rate, the equity risk premium, and the specific company risk premium.

The Buildup Method

.14 There are several methods of building up to determine discount and capitalization rates. The method used by the valuer will depend on the information available. Using the buildup method to determine these rates involves adding rates of return and return premiums based on a qualitative risk analysis of the appraisal subject. The components of the rates are discussed below.

.15 ***Safe Rate.*** The safe rate is generally considered to be a risk-free rate available in the marketplace. Although not completely without risk, the yield to maturity of long-term Treasury bonds as of the effective date of the valuation is frequently used to determine this rate. This information is readily available in newspapers, the *Federal Reserve Bulletin,* and other financial publications in most local libraries.

.16 ***Equity Risk Premium.*** The equity risk premium, represents the excess of the return earned by an equity investor over that earned by an investor in long-term U.S. Treasury securities. This information is available in various sources. The source most widely used by business valuers is *Stocks, Bonds, Bills and Inflation,*[28] published annually by Ibbotson Associates. Although this publication is a valuable tool, it has limitations in that the information it provides is about returns of public companies that may be considerably larger than the subject of the valuation. Nevertheless, valuers believe that this information is the only data that should be used. Another Ibbotson publication that has gained popularity among appraisers is *Cost of Capital Quarterly.* This publication provides rates of return broken down by major standard industrial classification grouping. This information provides the entire market discount rate, as opposed to just the equity risk premium. A specific company risk premium would be added to this item.

.17 In recent years, articles have been published in *Business Valuation Review*[29] discussing some Price Waterhouse studies about equity risk premiums. These studies have started becoming popular as well.

.18 Valuers may also consult other reference sources that have been published by such experts in valuation as A.S. Dewing[30] and James Schilt.[31] In their works, businesses are categorized according to size, management structure, industry, competition, and so forth, and the authors offer opinions on the related risk premium and suggested capitalization rates for businesses in different categories.

.19 ***Specific Company Risk Premium.*** The specific company risk premium is the component of risk that is attributable to the valuation subject. The determination of this portion of the overall discount or capitalization rate should be based on a detailed analysis of the valuation subject. The valuer uses ratio analyses and common size financial statements to compare the company's current performance with past performance as well as with industry and guideline

[28] Ibbotson Associates. *Stocks, Bonds, Bills and Inflation.* Chicago, IL: Ibbotson Associates.
[29] See articles written by David King and Roger Grabowski. These articles were first published in 1994 and have been continuously updated.
[30] A.S. Dewing. The *Financial Policy of Corporations.* New York: The Ronald Press Company, 1953.
[31] James H. Schilt, "A Rational Approach to Capitalization Rates for Discounting the Future Income Stream of a Closely Held Company," *Financial Planner,* January 1982.

company data. The valuer also considers risks other than financial, such as those associated with the subject's industry, size, management, operations, environmental laws and regulations, and so forth.

.20 The various components used in the buildup method, when added together, derives a discount rate applicable to net cash flow. This is particularly true when Ibbotson data are used for the equity risk premium. If an income stream other than net cash flow is to be discounted, the rate should be adjusted accordingly.[32]

.21 If the income stream will be capitalized instead of discounted, the practitioner will have to derive a capitalization rate instead of a discount rate. This can be accomplished by subtracting the present value of the long-term sustainable growth rate from the discount rate.

.22 An alternative method of calculating a capitalization rate is to use the mathematical inverse of a pricing multiple. For example a price earnings multiple of 8 is the same as a capitalization rate of one over eight, or 12½ percent.

Capital Asset Pricing Model

.23 The CAPM is also widely used, generally in the valuation of larger companies. The CAPM is used to develop discount rates applicable to the equity of an enterprise as compared with the total invested capital (debt and equity) of that enterprise. Valuing total invested capital would require a weighted average cost of capital (WACC) rate to be used by the valuer. This CAPM derives a discount rate according to the following formula:

$$R_e = R_f + [\beta \times (R_m - R_f)]$$

Where

R_e	=	Expected return
R_f	=	Risk-free rate of return
β	=	Systematic risk (volatility, explained below)
R_m	=	Return on the market in its entirety
$R_m - R_f$	=	Long-term average risk premium of the market as a whole over the long-term average risk-free rate (also known as the equity risk premium)

[32] For a further discussion on adjusting discount rates, see Gary Trugman. *Understanding Business Valuation: A Practical Guide to Valuing Small to Medium-Sized Businesses.* New York: the American Institute of Certified Public Accountants, 1999, Chapter 9.

.24 Beta is determined through comparisons with guideline companies that are publicly traded. One readily available source of betas is the weekly publication *Value Line.*[33]

.25 In using the CAPM, some valuers add a specific company risk premium, which is referred to as an alpha. The CAPM is based on portfolio management theory, which is beyond the scope of this publication. Although practitioners will probably use the buildup method most of the time, particularly for small companies and professional practices, they are advised to be familiar with the CAPM. Practitioners are also advised to review additional valuation literature to obtain further understanding of the theory supporting discount and capitalization rates.

.26 The WACC is used when the income stream is debt free or when invested capital is being valued. The WACC is determined using the following formula:

$$(k_e \times W_e) + (k_d [1 - t] \times W_d)$$

Where

k_e = Required rate of return for the company's equity capital (discount rate)

k_d = Company's cost of debt capital (borrowing)

W_e = Percentage of equity capital in the company's capital structure

W_d = Percentage of debt capital in the company's capital structure

t = Company's effective income tax rate

.27 To illustrate this concept, let us assume that after the appraiser analyzes the company, its industry, and other pertinent factors, he or she determines that the company's required rate of return on equity is 25 percent. The company is borrowing money from its bank at 10 percent. The company's effective tax rate is 40 percent. The company's condensed balance sheet looks like the following:

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33 *The Value Line Investment Survey.* New York: Value Line Publishing, Inc.

Assets			***Liabilities and Equity***		
Current assets	$	340,000	Current liabilities	$	120,000
Fixed assets		835,000	Long-term debt[34]		255,000
Other assets		74,000	Equity		824,000
Total	$	1,249,000	Total	$	1,249,000

Based on these facts, the WACC would be calculated as follows:

$$(k_e \times W_e) + (k_d[1\text{-}t] \times W_d)$$
$$(.25 \times .76) + (.10[1\text{-}.40] \times .24)$$
$$.19 + .01 = .20 \text{ or } 20 \text{ percent}$$

The capital structure is as follows:

Debt	$	255,000	24.00%
Equity		824,000	76.00%
Total	$	1,079,000	100.00%

DISCOUNTS AND PREMIUMS

.01 The final value of a valuation subject may be less or more than the value calculated with the methods described in this publication. Discounts or premium may be appropriate in calculating the final value of the subject. An experienced practitioner often considers using a minority discount when the ownership interest is less than 50 percent or a control premium when the ownership interest exceeds 50 percent. However, the practitioner needs to exercise caution because a discount or premium is not always appropriate. For example, a practitioner who uses public guideline companies to value a subject needs to be aware that the prices of the shares listed on a stock exchange already reflect a minority value. Generally, public stock market prices for shares of stock represent a marketable minority interest. To use discounts and premiums appropriately, the practitioner needs to understand the basis of the adjustment.

.02 Some of the common discounts and premiums are the following:

- Minority discount

[34] Long-term debt contains all of the debt on the balance sheet. The short-term portion of the long-term debt should also be included in the calculation.

- Discount for lack of marketability
- Small company discount
- Discount from net asset value
- Control premium

Minority Discount

.03 A minority discount is a reduction in the control value of the subject to reflect the fact that a minority stockholder cannot control the daily activities or policy decisions of an enterprise. The size of the discount will depend on the size of the interest, the amount of control, the stockholder's ability to liquidate the company, and other factors.

.04 A minority discount is the opposite of a premium for control. This type of discount is used to obtain the value of a noncontrolling interest in the subject being valued when a control value is its reference point. Conversely, a control premium is used to determine the control value when the freely traded minority value is the reference point. The following formula can be used to obtain the minority discount:

$$1 - \left[\frac{1}{1 + CP}\right]$$

.05 For example, the valuer may determine that the control value of a share of stock is $120, and research indicates that a 20 percent control premium is appropriate for that valuation. The minority discount would be calculated as follows:

$$1 - [1 \div (1 + 0.2)] = 16.67\% \text{ minority discount}$$

The 16.67 percent minority discount would be subtracted from the control value to derive the freely traded minority value. This is calculated as follows:

$120 x 16.67% = $20 discount
$120 - $20 = $100 freely traded minority value

.06 A minority discount should be taken only when appropriate, and the rationale for the discount should be well documented. The facts and circum-

stances of each case will vary, and therefore, the practitioner should avoid selecting a minority discount rate arbitrarily.[35]

.07 The minority discount can be partially quantified by measuring the difference between the control value and the minority value when appropriate adjustments are made to the income stream of the appraisal subject.

.08 For example, let's assume that XYZ Company is being valued on a control basis and a minority basis. Reported earnings are $100,000. The only normalization adjustment is for officer's compensation. On a control basis, it is determined that the replacement salary would be $50,000 less than actually paid in arriving at reported earnings.

.09 The minority valuation would not necessarily include the adjustment for officer's compensation since the minority owner cannot change the level of compensation taken by the officer.[36]

.10 Assuming that the appropriate capitalization rate was determined to be 20 percent, the value of XYZ Company, estimated on a control and a minority basis, is calculated as follows:

	Control	Minority
Reported earnings	$ 100,000	$ 100,000
Adjustments:		
Officer's compensation	50,000	
Adjusted Earnings	$ 150,000	$ 100,000
Capitalization rate	÷ .20	÷ .20
Value estimate	$ 750,000	$ 500,000

.11 Ignoring any other discounts, the difference in value of $250,000 represents the dollar value of the minority discount. This would support a 33⅓ percent discount.

35 Practitioners will find additional guidance on selecting minority discounts in control premium studies in such publications as *Mergerstat Review,* and the *Premium for Control Study,* published by Houlihan, Lokey, Howard & Zukin.

36 This example does not consider oppressed shareholder issues. It is beyond the scope of this publication.

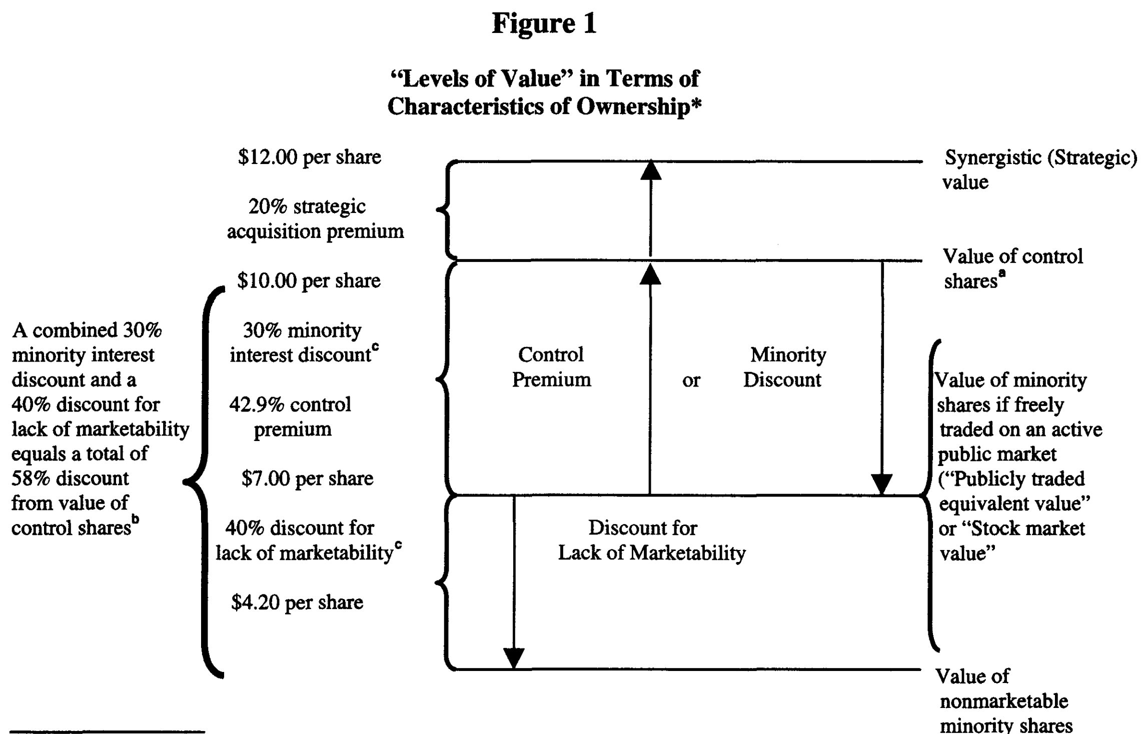
Discount for Lack of Marketability

.12 A discount for lack of marketability (DLOM) is used to compensate for the difficulty of selling shares of stock that are not traded on a stock exchange compared with those that can be traded publicly. A DLOM may also be appropriate when the shares have either legal or contractual restrictions placed upon them (for example, restricted stock, buy-sell agreements, and bank loan restrictions). Even when a 100-percent interest of the subject is being valued, a DLOM may be appropriate if the owner cannot change the restrictions on the stock.

.13 The relationship of the DLOM to the control premium and minority discount is illustrated in Figure 1 below.

Figure 1

"Levels of Value" in Terms of Characteristics of Ownership*



Notes:

[a] Control shares in a privately held company may also be subject to some discount for lack of marketability, but usually not nearly as much as minority shares.

[b] Minority and marketability discounts normally are multiplicative rather than additive. That is, they are taken in sequence:

$ 10.00	Control Value
- 3.00	Less: Minority interest discount (.30 x $10.00)
$ 7.00	Marketable minority value
- 2.80	Less lack of Marketability discount (.40 x $7.00)
$ 4.20	Per share value of non-marketable minority shares

[c] Note that neither the minority/control nor the marketability issue are "all or nothing" matters. Each covers a spectrum of degrees as discussed in the accompanying text.

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.14 The practitioner should also be aware that a control value may reflect a DLOM, although it probably would be smaller than a DLOM attributable to minority shares. Since a minority interest is more difficult to sell than a controlling interest, the DLOM is usually larger for minority interests.

.15 Sources of data about the DLOM include the *SEC Institutional Investor Study,* studies by Maher, Moroney, and Solberg, John Emory's study on initial public offerings, and many unpublished proprietary studies by valuation or investment banking firms. Many books on valuation theory discuss these studies.

.16 One of the best explanations of why a DLOM varies from case to case was written in an article published by Robert E. Moroney entitled "Why 25% Discount for Non-marketability in One Valuation, 100% in Another?" (published in *Taxes,* May 1977). Every business valuer should read this article.

.17 Other excellent guidance can be obtained by reading the Tax Court decision in *Estate of Bernard Mandelbaum, et al. v Commissioner*, 69 T.C.M. (CCH) 2852 (1995).

Small Company Discount

.18 The small company discount is similar to a DLOM. However, valuation professionals distinguish between these two discounts. Data in publications such as *Mergerstat Review* seem to indicate that the acquisition prices for entire private companies tend to be lower than tender offer prices for public companies. One reason for this, according to many valuation professionals, is that entire private companies tend to be smaller than many of the public companies involved in tender offers.

.19 The size adjustment is frequently made as part of the reduction of valuation multiples or as increased discount or capitalization rates. Practitioners must exercise care that they do not double count this item.

Discount From Net Asset Value

.20 A discount from net asset value is commonly applied in the valuation of real estate, investment companies, holding companies, and oil and gas interests. This discount is generally appropriate for the valuation of asset intensive companies and is used to derive a freely traded value. The practitioner determines this discount by reviewing the prices of the shares of publicly traded guideline companies with respect to their published net asset values.

.21 A discount from net asset value is also frequently part of the valuation of an interest in a holding company or a family limited partnership in which the

underlying assets are valued. Practitioners frequently review the discount from net asset value of closed-end mutual funds or real estate entities to help support this discount.

Control Premium

.22 As stated earlier, the control premium is the opposite of the minority discount and is used to determine the control value of a subject whose freely traded minority value is known. This is generally true when the valuer uses information from the public stock market as the starting point of the valuation. A control premium may be appropriate for reflecting control that is less than 100 percent. In this case, the size of the premium will depend on various factors relating to the amount of control available to the controlling interest.

.23 The valuer needs to be careful to avoid double counting. Certain methods of valuing a small closely held company may already include a process for reflecting the subject's control value. The value derived may be a control value depending on the adjustments made to determine the benefits stream to be discounted or capitalized. The capitalization of excess earnings method, for example, is one in which the resulting value is a control value. In this instance, if the valuer adds a control premium, double counting would take place.

.24 A control premium may, however, be appropriate in valuing certain minority blocks of stock. For example, an interest of 2 percent may have a considerable value if it has the swing vote when the other two stockholders own 49 percent each.

CONCLUSION

.01 The valuation of a closely held business is an extremely complex process. After reading this text practitioners should have a better insight into the complexity of this process and a foundation for investigating the subject further. More detailed information about valuation theory and methods is available in books and articles, such as those listed in the bibliography, as well as in continuing professional education courses sponsored by the AICPA, state societies, and other professional appraisal organizations.

APPENDIX A

CASE STUDY: VALUATION OF 100 PERCENT OF THE EQUITY OF XYZ BAR AND GRILL, INC.

Jennifer Stone, President of XYZ Bar and Grill, Inc., retained the firm of I.M.A. Valuer & Company to estimate the fair market value (FMV) of 100 percent of the equity of the company for estate planning purposes. Stone agreed to the terms of the valuation as stated in the sample engagement letter. (See exhibit A-l, "Sample Engagement Letter.") After reviewing the draft of the valuation report, Stone sent I.M.A. Valuer & Company a representation letter confirming the validity of the information submitted to the valuer and verifying its accuracy and completeness. (See exhibit A-2, "Sample Representation Letter.") The sample letters can be adapted for use in a particular engagement. The practitioner is also advised to consult appropriate AICPA sources for guidance particularly as it relates to situations in which an accountant's report is required to accompany the financial statements.

The final valuation computation in this case study is presented for illustrative purposes. Many of the valuation methods illustrated may or may not be appropriate for each business valuation engagement. In an actual valuation, all methods would probably not be used.

Exhibit A-1

Sample Engagement Letter

I.M.A. Valuer & Company
Certified Public Accountants
59-60 Main Street
Anytown, USA 00000

January 30, 2000

Ms. Jennifer Stone, President
XYZ Bar and Grill, Inc.
68-609 Ruling Street
Anytown, USA 00000

Dear Ms. Stone:

This letter will confirm the terms of our engagement and the nature of the services that we will provide.

The undersigned acknowledges this engagement of I.M.A. Valuer & Company (Valuer) to perform a business valuation of XYZ Bar and Grill, Inc. (XYZ), as of December 31, 1999. The purpose of this business valuation is to determine the fair market value (FMV) of the subject property. Said FMV is defined to be a value at which a willing seller and willing buyer, both being informed of the relevant facts about the business, could reasonably conduct a transaction, neither party acting under any compulsion to do so.

It is understood that Valuer is not being engaged to perform an audit as defined by the American Institute of Certified Public Accountants, but rather the necessary tests of the accounting records that will be performed for the purpose of issuing a valuation report, and not a statement regarding the fairness of presentation of the financial statements of the above business.

Certain values, derived from reports of others, and which are so designated, will be included in our report. We take no responsibility for those items. Nor do we take responsibility to update the report or disclose any events or circumstances occurring after the date of the report.

In the event that sufficient records and/or documentation cannot be supplied to Valuer, no such valuation report will be issued.

This appraisal will be subject to, at least, the following contingent and limiting conditions, which will be included in the report as an appendix.

1. Information, estimates, and opinions contained in this report are obtained from sources considered reliable; however, Valuer has not independently verified such information and no liability for such sources is assumed by this appraiser.

2. All facts and data set forth in the report are true and accurate to the best of the appraiser's knowledge and belief. We have not knowingly withheld or omitted anything from our report affecting our value estimate.

3. Possession of this report, or a copy thereof, does not carry with it the right of publication of all or part of it, nor may it be used for any purpose without the previous written consent of the appraiser, and in any event only with proper authorization. Unsigned copies should be considered to be incomplete.

4. None of the contents of this valuation report shall be conveyed to any third party or to the public through any means without the express written consent of Valuer other than for the stated purpose appearing in the "Introduction" of our report.

5. No investigation of titles to property or any claims on ownership of the property by any individuals or company has been undertaken. Unless otherwise stated in our report, title is assumed to be clear and free of encumbrances and as provided to the appraiser.

6. Unless otherwise provided for in writing and agreed to by both parties in advance, the extent of the liability for the completeness or accuracy of the data, opinions, comments, recommendations and/or conclusions shall not exceed the amount paid to the appraisers for professional fees and, then, only to the party or parties for whom this report was originally prepared.

7. The various estimates of value presented in this report apply to this appraisal only and may not be used out of the context presented herein. Any other use of this report may lead the user to an incorrect conclusion for which Valuer assumes no responsibility.

8. The appraisal estimate of FMV reached in this report is necessarily based on the definition of FMV as stated in the "Introduction." An actual transaction in the shares may be concluded at a higher value or lower value, depending on the circumstances surrounding XYZ, the appraised business interest, and/or the motivations and knowledge of both the buyers and sellers at that time. Valuer makes no guarantees as to what values individual buyers and sellers may reach in an actual transaction.

9. It should be specifically noted that the valuation assumes the business will be competently managed and maintained by financially sound owners, over the expected period of ownership. This appraisal engagement does not entail an evaluation of management's effectiveness, nor are we responsible for future

marketing efforts and other management or ownership actions upon which actual results will depend.

10. No opinion is intended to be expressed for matters that require legal or other specialized expertise, investigation, or knowledge beyond that customarily employed by appraisers valuing businesses.

11. It is assumed that there are no regulations of any government entity to control or restrict the use of the underlying assets, unless specifically referred to in the report and that the underlying assets will not operate in violation of any applicable government regulations, codes, ordinances, or statutes.

12. Valuation reports may contain prospective financial information, estimates, or opinions that represent the view of the appraiser about reasonable expectations at a particular point in time, but such information, estimates, or opinions are not offered as predictions or as assurances that a particular level of income or profit will be achieved, or that specific events will occur.

13. We assume that there are no hidden or unexpected conditions of the business that would adversely affect value, other than as indicated in this report.

14. Hazardous substances, if present, can introduce an actual or potential liability that will adversely affect the marketability and value of a business. Such liability may be in the form of immediate recognition of existing hazardous conditions, or future liability that could stem from the release of currently nonhazardous contaminants. In the development of the opinion of value, no consideration was given to such liability or its impact on value. We have not taken into account any and all future environmental considerations and potential liability.

15. The recommendations of value contained herein do not take into account any potential liability to XYZ from computer malfunctions, errors, or other problems associated with not being Y2K compliant. Furthermore, we have not considered (unless otherwise described in the report) any potential costs or expenses associated with bringing the computer systems or other software of XYZ into Y2K compliance. It is recommended that the appropriate experts be retained to investigate and determine to what extent, if any, there will be costs, potential liabilities, or effects on XYZ's operations as a result of its not being Y2K compliant.

It is possible that additional contingent and limiting conditions will be required, and the client agrees that all conditions disclosed by the appraiser will be accepted as incorporated into the appraiser's report.

It is our intention to perform this engagement as quickly and affordably as possible, but these services take a reasonable amount of time to render. We will make certain that the

appropriate personnel in our firm renders those services that will comply with the level of expertise required by this engagement. In that regard, hourly rates will be charged based on the billing rates in effect at the time that the services are rendered.

Hourly rates are charged portal to portal from our office. In addition to these hourly rates, the following charges may be applicable.

1. A minimum fee of four hours will be charged for appearance at depositions and/or court appearances.

2. Any out-of-pocket expenses relating to this valuation will be charged. It is expected that we will perform research through computer databases, and that we may be required to purchase research materials relating to this engagement. These and other such costs will be billed to you at our cost.

Payment terms shall be as follows:

> $X,XXX is due in advance as a retainer. Any amount over the retainer shall be billed monthly. Since it is considered unethical for us to perform these services on a contingency basis, it is important to us that our fees be paid promptly. The appearance of independence is of considerable importance for our firm to maintain our credibility, and therefore, we reserve the right to stop providing services at any time that there is a balance due our firm beyond 30 days. In the event that we continue to provide services, we do not waive our right to stop at a later date.
>
> The client must understand that professional business valuation services are not inexpensive and unless other arrangements are made, in writing, with our firm, services rendered by our firm will be invoiced regularly, and are due upon presentation of our invoice to you.
>
> Balances outstanding beyond 30 days will have a service charge added at the rate of 1½ percent per month or part thereof. All costs relating to collection of these fees will also be the responsibility of the undersigned including, but not limited to, attorney fees, collection agency fees, and so on. Reasonable attorney fees will be considered to be up to 33 percent of the outstanding balance.
>
> An additional invoice will be rendered once the appraiser has completed the appraisal report. Payment in full is due prior to the release of said report.
>
> The final report is copyrighted by Valuer. It shall remain the property of Valuer and no copies or reproductions shall be allowed without the written consent of Valuer until such time as any outstanding balance is paid.

Valuer reserves the right to withdraw from this engagement at any time for reasonable cause. It is not our intention to withdraw. In the event there is an outstanding balance, we

further reserve the right not to make a court appearance in this matter. All working papers created by Valuer will remain in the possession of Valuer. In the event of a withdrawal, we would only be liable to return those materials and documents supplied by the client and the unused portion of the retainer.

The undersigned gives Valuer the right to discuss this matter with the client's attorney, accountant, and other individuals so designated by the client and any professional colleagues of the appraiser from whom professional information is sought.

If this is acceptable, please sign the acknowledgment below and return a signed copy of this retainer agreement with your check in the amount of $X,XXX to our office.

I.M.A. Valuer & Company

Partner

ACKNOWLEDGMENT:

The undersigned accepts the terms of this retainer agreement and guarantees full payment of the fees with respect to this engagement.

Signature Date

Exhibit A-2

Sample Representation Letter

XYZ Bar and Grill, Inc.
68-609 Ruling Street
Anytown, USA 00000

March 17, 2000

I.M.A. Valuer & Company
Certified Public Accountants
59-60 Main Street
Anytown, USA 00000

Gentlemen:

Concerning your valuation of XYZ Bar and Grill, Inc. (XYZ) as of December 31, 1999, we represent to you that to the best of our knowledge and belief—

1. We have made available to you all information requested and all information that we believe is relevant to your valuation.

2. The financial statements furnished to you for the years ended December 31, 1996 through 1999 present the financial position of XYZ, in conformity with generally accepted accounting principles.

3. The income tax returns furnished to you for the years 1996 through 1999 are complete and exact copies of the returns filed with the Internal Revenue Service.

4. The company has no commitments or contingent liabilities, including those arising from litigation, claims, and assessments, that are not disclosed in the financial statements identified above.

5. The company does not have any (*a*) employment contracts with salaried employees, (*b*) stock option plans, or (*c*) stock redemption agreements with shareholders, except to the extent indicated in written agreements furnished to you.

6. The company is not currently negotiating the acquisition of new business interests or the disposition of existing segments or products lines.

7. The forecast of future earnings presents our assumptions and XYZ's expected financial position, results of operations, and cash flows for the year ending after

December 31, 1999, in conformity with the generally accepted accounting principles expected to be used by the company during the forecast period. These principles are consistent with the principles that XYZ uses in preparing its historical financial statements. The financial forecast is based on our judgment, considering present circumstances, of the expected conditions and our expected course of action.

8. We have reviewed the preliminary draft of your valuation report, a copy of which is attached, and represent that the information about the company presented therein is accurate and complete.

Very truly yours,
XYZ Bar and Grill, Inc.

Jennifer Stone, President

Exhibit A-3

Sample Cover Letter

I.M.A. Valuer & Company
Certified Public Accountants
59-60 Main Street
Anytown, USA 00000

April 15, 2000

Ms. Jennifer Stone, President
XYZ Bar and Grill, Inc.
68-609 Ruling Street
Anytown, USA 00000

Dear Ms. Stone:

In accordance with your request and for the purpose of estimating the fair market value of 100 percent of the common stock of XYZ Bar and Grill, Inc. (XYZ) to be used as part of an estate plan, we have personally inspected this business, examining the component parts, and have made a careful and thorough investigation and analysis of matters pertinent to the estimation of its value.

Based upon the facts presented in the attached report and other matters considered during our investigation and analysis, it is our opinion that as of December 31, 1999, the fair market value of 100 percent of the common stock of XYZ was approximately $3,700,000.

Our report and conclusions are attached to this cover letter as an integral part of it.

Respectfully submitted,
I.M.A. VALUER & COMPANY

Partner

Exhibit A-4.1A

Comparison of Historic Balance Sheets

During a business valuation engagement, the practitioner will usually receive either financial statements or tax returns or both and can use them to prepare a comparative balance sheet of the valuation subject. An advantage of preparing a comparative balance sheet is that it allows the valuer to compare any changes between the various years being analyzed. Although statements for five years are commonly used, the facts and circumstances of each case should be considered because more or fewer years may be appropriate in some situations. The historic balance sheets for XYZ Bar and Grill, Inc. (XYZ) are shown in schedule A-4.1A, "Historic Balance Sheets, December 31, 1995-99."

Practitioners should remember that generally accepted accounting principles do not apply in the valuation of closely held companies. It is suggested to segregate operating assets from nonoperating assets and liabilities in the comparative balance sheet.

In the case of XYZ, nonoperating assets included the cash surrender value of a life insurance policy. Under an income approach, since this asset does not affect operations, the company would be valued excluding it and it would be added back at the end to determine the enterprise's total value, as is done in several valuation illustrations in this case study.

Since many small businesses have nonoperating assets and liabilities recorded on their balance sheets, the practitioner needs to pay close attention to these items. As a company grows, and as more owners have an interest in the company, the number of personal items on the balance sheet generally decreases. For instance, the chance of multiple owners each having a condominium or other personal assets on the books is less likely than if the business was a sole proprietorship.

SCHEDULE A-4.1A
XYZ BAR AND GRILL, INC.
HISTORIC BALANCE SHEETS
DECEMBER 31, 1995-99

	1995	1996	1997	1998	1999
Current Assets					
Cash	$ 261,496	$ 148,648	$ 240,400	$ 250,624	$ 240,664
Inventories	122,576	184,000	275,200	464,000	244,000
Prepaid Expenses	337,648	312,304	327,000	325,968	365,848
Total Current Assets	$ 721,720	$ 644,952	$ 842,600	$1,040,592	$ 850,512
Fixed Assets					
Gross Fixed Assets	$ 420,000	$ 450,000	$ 460,000	$ 490,000	$ 500,000
Accumulated Depreciation	80,000	90,000	100,000	120,000	150,000
Net Fixed Assets	$ 340,000	$ 360,000	$ 360,000	$ 370,000	$ 350,000
Other Assets					
Security Deposits	$ 9,200	$ 9,200	$ 9,200	$ 9,200	$ 9,200
Cash Surrender Value of Officer's Life Ins.	243,352	349,104	436,982	521,048	689,565
Other Assets	800,000	800,000	363,018	800,000	1,140,803
Total Other Assets	$1,052,552	$1,158,304	$ 809,200	$1,330,248	$1,839,568
TOTAL ASSETS	**$2,114,272**	**$2,163,256**	**$2,011,800**	**$2,740,840**	**$3,040,080**
Current Liabilities					
Accounts Payable	$ 234,920	$ 379,680	$ 166,896	$ 252,304	$ 217,592
Long-Term Debt - Current Portion	200,000	560,000	80,000	604,280	697,088
Accrued Expenses		39,712	39,040	35,872	44,528
Payroll Taxes Payable	60,000	48,288	38,608	53,080	55,080
Total Current Liabilities	$ 494,920	$1,027,680	$ 324,544	$ 945,536	$1,014,288
Long-Term Liabilities					
Loans From Stockholders	950,792	1,036,368	1,129,632	1,176,632	987,352
Total Liabilities	$1,445,712	$2,064,048	$1,454,176	$2,122,168	$2,001,640
Stockholders' Equity					
Common Stock	$ 80,000	$ 80,000	$ 80,000	$ 80,000	$ 80,000
Retained Earnings	588,560	19,208	477,624	538,672	958,440
Total Stockholders' Equity	$ 668,560	$ 99,208	$ 557,624	$ 618,672	$1,038,440
TOTAL LIABILITY AND STOCKHOLDERS' EQUITY	**$2,114,272**	**$2,163,256**	**$2,011,800**	**$2,740,840**	**$3,040,080**

Exhibit A-4.1B

Adjusted Balance Sheet

In order to prepare the balance sheet for the valuation assignment, the practitioner will review the various line items to determine whether the values on the historic financial statements need to be adjusted to fair market value. This is also the time that the practitioner will remove nonoperating assets and liabilities from the balance sheet so that analysis can be performed of the operating entity.

All nonoperating assets and liabilities will be added back to the equity value of the operating unit to determine a final estimate of value. This allows a much cleaner determination of the value of the portion of the business that truly would be sold in an arm's-length transaction. The full equity should include all assets and liabilities.

SCHEDULE A-4.1B
XYZ BAR AND GRILL, INC.
ADJUSTED BALANCE SHEET
DECEMBER 31, 1999

	December 1999	Adjustments	Adjusted 1999
Current Assets			
Cash	$ 240,664		$ 240,664
Inventories	244,000		244,000
Prepaid Expenses	365,848		365,848
Total Current Assets	$ 850,512		$ 850,512
Fixed Assets			
Gross Fixed Assets	$ 500,000		$ 500,000
Accumulated Depreciation	150,000		150,000
Net Fixed Assets	$ 350,000		$ 350,000
Other Assets			
Security Deposits	$ 9,200		$ 9,200
Cash Surrender Value of Officer's Life Ins.	689,565	(689,565)	-
Other Assets	1,140,803		1,140,803
Total Other Assets	$ 1,839,568	$ (689,565)	$ 1,150,003
TOTAL ASSETS	**$ 3,040,080**	**$ (689,565)**	**$ 2,350,515**
Current Liabilities			
Accounts Payable	$ 217,592		$ 217,592
Long-Term Debt - Current Portion	697,088		697,088
Payroll Taxes Payable	55,080		55,080
Total Current Liabilities	$ 1,014,288		$ 1,014,288
Long-Term Liabilities			
Loans from Stockholders	987,352	(987,352)	-
Total Liabilities	$ 2,001,640	$ (987,352)	$ 1,014,288
Stockholders' Equity			
Common Stock	$ 80,000		$ 80,000
Retained Earnings	958,440	297,787	1,256,227
Total Stockholders' Equity	$ 1,038,440	$ 297,787	$ 1,336,227
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	**$ 3,040,080**	**$ (689,565)**	**$ 2,350,515**

Exhibit A-4.2

Comparison of Summary Historic Income Statements

Upon receipt of the company's financial statements or tax returns, the business valuer should prepare a spreadsheet comparing the company's historic income statement for an appropriate number of years (usually five). The valuer will find it helpful to prepare a complete historic income statement comparison rather than one in summary form. The purpose of this comparison is to analyze the trends. This analysis will be helpful in determining which expenses need further examination, particularly for the purpose of normalizing the income statement. It will also allow the valuer to determine any trends that may be used for forecasting future operations.

The nonoperating income and expenses are segregated because the value of the enterprise should be determined based on its true business activity. Another reason to segregate these figures is to enhance the comparability of the data with the data of guideline companies and industry data.

Frequently, when small closely held companies are bought and sold, the transactions are asset sales rather than stock sales. As such, the nonoperating assets and liabilities, which generate the nonoperating income and expenses, are not part of the transaction. Valuation theory usually requires the valuer to treat these items separately.

SCHEDULE A-4.2
XYZ BAR AND GRILL, INC.
SUMMARY HISTORIC INCOME STATEMENTS
FOR THE YEARS ENDED DECEMBER 31

	1995	1996	1997	1998	1999
Total Revenues	$ 10,062,512	$ 10,099,608	$ 10,489,552	$ 10,459,400	$ 10,701,880
Total Cost of Sales	3,577,984	3,833,600	4,195,432	4,377,224	4,381,264
Gross Profit	$ 6,484,528	$ 6,266,008	$ 6,294,120	$ 6,082,176	$ 6,320,616
Total Operating Expenses	7,016,608	5,806,776	5,443,880	5,420,872	5,416,496
Operating Income (Loss)	$ (532,080)	$ 459,232	$ 850,240	$ 661,304	$ 904,120
Interest Expense	23,600	113,168	194,869	87,290	124,853
Other Income	22,356	19,826	22,479	23,789	24,869
Income (Loss) Before Taxes	$ (533,324)	$ 365,890	$ 677,850	$ 597,803	$ 804,136
Income Taxes*	-	-	-	-	-
NET INCOME (LOSS)	**$ (533,324)**	**$ 365,890**	**$ 677,850**	**$ 597,803**	**$ 804,136**

*Assumes S Corporation

Exhibit A-4.3

Adjusted Net Income Analysis

The starting point of the adjusted net income analysis is the reported net income as reflected in schedule A-4.2, "Summary Historic Income Statements for the Years Ended December 31." The adjustments presented in schedule A-4.3 are intended to normalize the reported net income and adjust those items that may need to be restated to reflect the economic net income of the business. The extent of the normalization adjustments will depend on the interest being valued. Since a minority interest cannot change certain items, adjustments are frequently only made for those items that are in the control of the interest being valued.

In this illustration, depreciation expense was adjusted to reflect the economic depreciation rather than the tax or generally accepted accounting principles (GAAP) depreciation. To determine the amount of this adjustment, the valuer may have a tangible asset appraisal performed by an asset appraiser. An alternative to an asset appraisal is to estimate the useful life and adjust the depreciation methods to more of an economic basis. Care must be exercised in this alternative, particularly if the dollar value of the assets are a material element of the overall value of the enterprise. The practitioner should also pay particular attention to items that have been expensed under Section 179 of the Internal Revenue Code, items that possibly have been expensed, rather than capitalized, over the years, and items that have been written off, but continue to be used in the business.

The adjustment to officers' salary is intended to reflect the reasonable compensation that would have to be paid to another individual based on a market rate of compensation for the position. Industry salary surveys are frequently a good source of this information. It is advisable to use the data reported in this type of source rather than base the adjustment on a percentage of sales that may be published. The problem with using a percentage of sales is that the publication usually does not specify the number of officers earning the compensation, so the same percentage may be applied to a company with one officer and to a company with three officers.

Rent was also normalized in this case. In some instances, small businesses may not have an arm's-length lease. An owner may be paying rent to herself, or a relative, or another related party. Care must be taken to recognize this occurrence, as with many businesses, rent can be a very significant expense that can dramatically affect the bottom line. In this case, the owner has been paying excessive rent to herself. The valuer had a real estate appraisal performed on the properties owned by Ms. Stone, and adjusted the 1999 rent to fair rental value. Rent was then deflated by an inflationary adjustment to determine fair rental expenses in the previous years.

The final adjustment is to calculate the tax effect of these adjustments. The valuation profession is divided about the applicability of taxes in the valuation of closely held

businesses between practitioners who prefer to value companies on a pretax basis and those who value on an aftertax basis. Either basis is correct as long as the applicable capitalization rates, discount rates, and guideline company information are consistent with the basis being used. When the entity being valued is a sole proprietorship, a partnership, or an S corporation, some practitioners prefer to use a corporate tax rate to avoid the effect of itemized deductions and personal exemptions on the owner's tax obligation. Others prefer to value the entity on a pretax basis, which accomplishes the same purpose, if the other information being used by the valuer can be converted to a pretax basis.

If the practitioner capitalizes or discounts a pretax or an aftertax benefits stream, the result should be the same. The company will only have one value (within the reasonable range of values), and the factors used in the valuation process should be applied consistently.

SCHEDULE A-4.3
XYZ BAR AND GRILL, INC.
ADJUSTED NET INCOME
FOR THE YEARS ENDED DECEMBER 31

	1995	1996	1997	1998	1999
Historic Net Income (Schedule 2)	$ (533,324)	$ 365,890	$ 677,850	$ 597,803	$ 804,136
Adjustments:					
Depreciation/Amortization Expense[1]	(5,000)	(5,000)	(10,000)	(15,000)	(15,000)
Officers' Compensation - Addback[2]	150,000	150,000	160,000	180,000	200,000
Officers' Compensation - Reasonable[2]	(106,618)	(109,817)	(113,112)	(116,505)	(120,000)
Rent[3]	1,332,307	557,047	211,100	374,000	152,000
ADJUSTED PRETAX NET INCOME	$ 837,365	$ 958,120	$ 925,838	$1,020,298	$ 1,021,136
Income Taxes[4]	334,443	382,673	369,780	407,507	407,842
ADJUSTED NET INCOME	**$ 502,921**	**$ 575,447**	**$ 556,059**	**$ 612,791**	**$ 613,294**

[1]To adjust depreciation to reflect economic depreciation rather than tax depreciation
[2]To addback the actual officers' salary and then deduct officers' salary based on an industry salary survey
[3]To adjust rent to fair rental value
[4]To adjust taxes by the effective tax rate to reflect the amount of taxes attributable to the adjusted pretax income.

Exhibit A-4.4

Ratio Analysis

Ratio analysis is critical to the valuation process, because it allows the valuer to compare the company's current performance with that of past years and also with that of either guideline companies or the industry. Schedule A-4.4 reflects the calculation of ratios that can be used in the financial analysis portion of the valuation.

In this instance, XYZ Bar and Grill, Inc.'s (XYZ's) ratios were compared with composite industry ratios to determine whether the company is stronger or weaker than its industry counterparts. This comparison helps the valuer assess the financial risk of the company, which is one of the factors used to determine a proper discount or capitalization rate. Another useful purpose of the ratio analysis is to help the valuer forecast future results of the company based on past trends.

A good valuation report includes a discussion of these ratios and explains any major variations from year to year and with the industry composite data. For example, the operating ratio of earnings before taxes to tangible worth of XYZ is more than twice the industry ratio. Therefore, the valuer analyzed the company data carefully to determine the reason for the difference.

The purpose of the analysis is to assist in the valuation process, and the information presented must be relevant and meaningful to the particular engagement. The practitioner should therefore note that different industries consider different ratios appropriate for the valuation of different types of companies. For example, in the valuation of a brokerage business, the ratio of sales per employee is considered appropriate. The valuer therefore uses this ratio rather than ratios that consider the cost of goods sold or sales per square foot of retail space, which may be applicable for other types of businesses.

In our analysis, we utilized industry information compiled by Integra Information in the *Business Profiler* CD-Rom. XYZ's financial information was compared against the average financial information collected from 525 companies in Standard Industrial Classification Code 5812, Eating and Drinking Places, that had annual sales between $10,000,000 and $25,000,000.

Schedule A-4.4 lists selected multiples for XYZ. For further description of the ratio's discussed, see appendix B "Financial Ratios."

The current ratio for XYZ, 0.84, is very close to the industry average of 0.83 in 1999, although the company's ratio has been falling over the past three years. The quick ratio of 0.24, for 1999, is significantly below their peer group average of 0.59. The combination of these two averages indicates that XYZ's current assets are composed largely of inventory. This company's current liabilities outweigh their current assets

(minus inventory) 4 to 1, meaning XYZ could have serious difficulties meeting short-term obligations. Days Accounts Payable for the company at 19.57 is well below 45.45 for similar companies, indicating that XYZ, is paying its payables off faster than its counterparts.

Days Inventory Sales was 29.49 for XYZ in 1999 as compared with 12.69 for similar companies, and has been higher than the industry over the previous four years. This could mean poor inventory management or inflated inventory value to XYZ. Accordingly, inventory turnover for XYZ was less than half that of similar companies in 1999.

SG&A Expense to cash has been over twenty times average cash reserves for the past five years. Similar companies have had SG&A Expenses between 11 and 12 times cash over the same period. It appears that XYZ may not be keeping sufficient cash reserves, or has had excessive SG&A expenses. XYZ's long-term debt to equity is zero. Similar companies have high debt financing, with 1.5 times as much debt as equity. XYZ has a debt to equity ratio of 1, thus incurring less risk of default due to long-term debt, but the company may not be fully utilizing this source of capital. Debt capital is generally less expensive than equity capital, and includes tax benefits.

Looking at the after-tax return on net sales, XYZ appears much more profitable than similar companies, with after-tax return on sales ranging from 4 to 8 percent over the past four years as compared to similar companies averaging 1 percent. The after-tax return on equity paints an even brighter picture ranging from 77 to 368 percent returns on equity invested in XYZ, whereas investors in other restaurants would expect 1 to 2 percent.

XYZ is an extremely profitable company, with low levels of long-term debt. The business could have some problems paying down current debt, but, besides low levels of current assets, the company appears healthy.

SCHEDULE A-4.4
XYZ BAR AND GRILL, INC.
FINANCIAL RATIOS
FOR THE YEARS ENDED DECEMBER 31

	1995	1996	1997	1998	1999
LIQUIDITY / SOLVENCY					
Quick Ratio	0.53	0.14	0.74	0.27	0.24
Quick Ratio - Integra	0.67	0.65	0.63	0.59	0.59
Current Ratio	1.46	0.63	2.60	1.10	0.84
Current Ratio - Integra	0.92	0.90	0.87	0.83	0.83
Days Accounts Payable	11.98	29.26	23.78	17.48	19.57
Days Accounts Payable - Integra	20.28	42.19	42.60	43.81	45.54
Days Inventory Sales	6.25	14.59	19.98	30.82	29.49
Days Inventory Sales - Integra	13.29	13.53	13.01	12.69	12.69
TURNOVER					
Inventory Turnover	58.38	25.01	18.27	11.84	12.38
Inventory Turnover - Integra	27.46	26.97	28.05	28.77	28.77
Current Asset Turnover	27.88	14.78	14.10	11.11	11.32
Current Asset Turnover - Integra	8.17	8.25	8.54	8.91	8.91
Fixed Asset Turnover	59.19	28.86	29.14	28.66	29.73
Fixed Asset Turnover - Integra	3.35	3.30	3.31	3.33	3.33
Total Asset Turnover	9.52	4.72	5.02	4.40	3.70
Total Asset Turnover - Integra	1.92	1.90	1.92	1.96	1.96
Payables Turnover	30.46	12.48	15.35	20.88	18.65
Payables Turnover - Integra	17.99	8.65	8.57	8.33	8.02
SG&A Expense to Cash	53.67	28.32	27.99	22.08	22.05
SG&A Expense to Cash - Integra	20.72	10.81	11.22	11.95	11.86
DEBT					
Times Interest Earned	(21.60)	4.23	4.48	7.85	7.44
Times Interest Earned - Integra	1.68	1.71	1.65	1.63	1.63
Total Liabilities to Total Assets	0.68	0.95	0.72	0.77	0.66
Total Liabilities to Total Assets - Integra	0.69	0.70	0.70	0.71	0.71
Total Liabilities to Equity	2.16	20.81	2.61	3.43	1.93
Total Liabilities to Equity - Integra	2.25	2.29	2.33	2.47	2.47
Long-Term Debt to Equity	1.42	10.45	2.03	1.90	0.95
Long-Term Debt to Equity - Integra	1.35	1.38	1.40	1.48	1.48
Total Assets to Equity	3.16	21.81	3.61	4.43	2.93
Total Assets to Equity - Integra	3.25	3.29	3.33	3.47	3.47
PROFITABILITY					
Aftertax Return on Equity	-79.77%	368.81%	121.56%	96.63%	77.44%
Aftertax Return on Equity - Integra	1.80%	1.70%	1.50%	1.40%	1.40%
Aftertax Return on Invested Capital	-29.31%	21.58%	38.36%	24.91%	29.53%
Aftertax Return on Invested Capital - Integra	2.61%	2.43%	2.30%	2.05%	2.05%

Exhibit A-4.5

Comparison of Common Size Income Statements and Common Size Balance Sheets

Historic income statements and balance sheets presented as common size financial statements can be used to analyze the company's performance over the years and to compare it with guideline companies and composite industry information. This comparison provides an excellent way to determine whether various line items in the financial statements have changed over the years and whether the company is keeping pace with the industry. Presentation of these data as percentages rather than dollars makes the comparison easier.

Similar to the ratio analysis, common size financial statement analysis allows the valuer to assess trends and risks that assist in the forecasting process as well as in the determination of proper discount or capitalization rates.

The balance-sheet information may show a shifting of assets or liabilities, such as cash and accounts receivable, or it may indicate trends in inventory or accounts payable. The common size financial statements can be used to determine the risk of the company by comparing its experience with that of guideline companies or with composite industry figures. The estimate of risk ultimately contributes to the determination of a proper discount or capitalization rate.

Again, in this analysis, we will utilize data retrieved from Integra *Information's Business Profiler* as an industry benchmarking tool.

The common size financial statement comparison is shown in schedule A-4.5, "Common-Size Income Statement Comparison for the Years Ended December 31." As can be seen on the income statement, XYZ Bar and Grill, Inc. (XYZ) has similar levels of costs of sales, and in turn, gross margins, as similar companies. Operating expenses, though, are significantly lower over the past three years increasing XYZ's profit margins which range from 6 to 8 percent, as compared with similar companies netting 1 percent over the same period.

The balance sheet for XYZ appears dramatically different than that of similar companies. The most pronounced difference is the low level of fixed assets held by the company. This, coupled with the high level of other assets makes the asset distribution of XYZ look much different than that of similar companies.

XYZ had a slightly higher level of current debt (33 percent versus 26 percent in 1999) than similar companies. Long-term liabilities are lower than those of similar companies for 1999, although it held similar levels of long-term debt in the previous four years. Equity has been volatile over the past five years for XYZ, ranging from 6 to 34 percent

of total liabilities and net worth. The previous three years have been more consistent, ranging from 25 to 34 percent. Similar companies have consistently reported equity about 30 percent of total liabilities and net worth, which is within the range of XYZ's equity.

XYZ's balance sheet had some interesting anomalies. Low fixed assets, and high investment in other assets, makes this statement appear different from those of similar companies. Debt and equity seem to fall in line with Integra's averages, indicating a healthy debt and equity relationship. Further investigation into the high levels of other assets may be necessary.

SCHEDULE A-4.5
XYZ BAR AND GRILL, INC.
COMMON SIZE INCOME STATEMENT COMPARISON
FOR THE YEARS ENDED DECEMBER 31

	1995		1996		1997		1998		1999	
	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill
Revenue	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Sales	40.91%	35.56%	39.65%	37.96%	39.71%	40.00%	38.88%	41.85%	38.88%	40.94%
Gross Margin	59.09%	64.44%	60.35%	62.04%	60.29%	60.00%	61.12%	58.15%	61.12%	59.06%
Operating Expenses	55.88%	69.73%	57.16%	57.50%	57.17%	51.90%	58.05%	51.83%	58.05%	50.61%
Operating Income	3.21%	-5.29%	3.20%	4.55%	3.13%	8.11%	3.06%	6.32%	3.06%	8.45%
Interest Expense	-1.91%	0.23%	-1.86%	1.12%	-1.90%	1.86%	-1.88%	0.83%	-1.88%	1.17%
Other Income	0.47%	0.22%	0.34%	0.20%	0.30%	0.21%	0.18%	0.23%	0.18%	0.23%
Pretax Income (Loss)	1.77%	-5.30%	1.67%	3.62%	1.53%	6.46%	1.36%	5.72%	1.36%	7.51%
Income Taxes	-0.67%	0.00%	-0.64%	0.00%	-0.58%	0.00%	-0.52%	0.00%	-0.52%	0.00%
NET INCOME (LOSS)	1.10%	-5.30%	1.03%	3.62%	0.95%	6.46%	0.84%	5.72%	0.84%	7.51%

COMMON SIZE BALANCE SHEET COMPARISON
AS OF DECEMBER 31

	1995		1996		1997		1998		1999	
	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill
Current Assets										
Cash	10.18%	12.37%	9.95%	6.87%	9.65%	11.95%	9.37%	9.14%	9.37%	7.92%
Marketable Securities	0.21%	0.00%	0.21%	0.00%	0.20%	0.00%	0.19%	0.00%	0.19%	0.00%
Accounts Receivable	6.65%	0.00%	6.48%	0.00%	6.29%	0.00%	6.10%	0.00%	6.10%	0.00%
Less Allowance for Bad Debt	(0.11)%	0.00%	(0.11)%	0.00%	(0.11)%	0.00%	(0.10)%	0.00%	(0.10)%	0.00%
Accounts Receivable (Net)	6.54%	0.00%	6.37%	0.00%	6.19%	0.00%	6.00%	0.00%	6.00%	0.00%
Inventory	2.82%	5.80%	2.77%	8.51%	2.68%	13.68%	2.61%	16.93%	2.61%	8.03%
Other Current Assets	3.54%	15.97%	3.54%	14.44%	3.50%	16.25%	3.55%	11.89%	3.55%	12.03%
Total Current Assets	23.31%	34.14%	22.84%	29.81%	22.22%	41.88%	21.71%	37.97%	21.71%	27.98%
Fixed Assets										
Property, Plant & Equipment	102.88%	19.86%	103.98%	20.80%	104.97%	22.87%	105.79%	17.88%	105.79%	16.45%
Accumulated Depreciation	(45.54)%	(3.78)%	(46.03)%	(4.16)%	(46.47)%	(4.97)%	(46.84)%	(4.38)%	(46.84)%	(4.93)%
Net Fixed Assets	57.34%	16.08%	57.95%	16.64%	58.50%	17.89%	58.95%	13.50%	58.95%	11.51%
Other Assets										
Intangible Assets (Net)	5.75%	0.00%	5.81%	0.00%	5.87%	0.00%	5.92%	0.00%	5.92%	0.00%
Depletable Assets (Net)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Investments	8.37%	11.95%	8.46%	16.56%	8.49%	22.18%	8.53%	19.35%	8.53%	22.99%
Other Assets	5.22%	37.84%	4.94%	36.98%	4.92%	18.04%	4.88%	29.19%	4.88%	37.53%
Total Other Assets	19.34%	49.78%	19.21%	53.54%	19.28%	40.22%	19.33%	48.53%	19.33%	60.51%
TOTAL ASSETS	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

COMMON SIZE BALANCE SHEET COMPARISON AS OF DECEMBER 31

	1995		1996		1997		1998		1999	
	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill	Integra	XYZ Bar and Grill
Liabilities and Net Worth										
Notes Payable—Banks	7.17%	9.46%	7.03%	25.89%	7.11%	3.98%	7.12%	22.05%	7.12%	22.93%
Accounts Payable	8.58%	11.11%	8.86%	17.55%	8.97%	8.30%	9.29%	9.21%	9.29%	7.16%
Other Current Liabilities	9.54%	2.84%	9.44%	4.07%	9.60%	3.86%	9.77%	3.25%	9.77%	3.28%
Total Current Liabilities	25.30%	23.41%	25.33%	47.51%	25.66%	16.13%	26.18%	34.50%	26.18%	33.36%
Long-Term Liabilities										
Long-Term Debt	36.50%	0.00%	36.78%	0.00%	36.77%	0.00%	37.34%	0.00%	37.34%	0.00%
Loans from Stockholders	5.02%	44.97%	5.17%	47.91%	5.18%	56.15%	5.30%	42.93%	5.30%	32.48%
Other Liabilities	2.42%	0.00%	2.33%	0.00%	2.34%	0.00%	2.32%	0.00%	2.32%	0.00%
Total Long-Term Liabilities	43.94%	44.97%	44.28%	47.91%	44.28%	56.15%	44.95%	42.93%	44.95%	32.48%
Total Liabilities	69.24%	68.38%	69.61%	95.41%	69.95%	72.28%	71.13%	77.43%	71.13%	65.84%
Total Net Worth	30.76%	31.62%	30.39%	4.59%	30.05%	27.72%	28.86%	22.57%	28.86%	34.16%
TOTAL LIABILITIES AND NET WORTH	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Exhibit A-4.6

Analysis of the Adjusted Book Value and Orderly Liquidation

Schedule A-4.6 illustrates a computation of the adjusted book value of the assets and liabilities excluding any intangible value that may be associated with the XYZ Bar and Grill, Inc. (XYZ). This schedule also provides the liquidation value of the same assets and liabilities. Although not illustrated in this exhibit, other engagements of this type may also require adjustments to current and long-term liabilities.

Starting with the book value as shown on the most recent historic balance sheet in schedule A-4.1, "Historic Balance Sheets, December 31, 1995-1999," the valuer made adjustments to bring various items to fair market value (FMV). The inventory was adjusted to reflect obsolete items being carried XYZ's books. The adjustment to the fixed assets eliminated the accumulated depreciation amount and brought the fixed assets to their FMV. The valuer may have assets valued by another appraiser who specializes in a particular type of property, such as real estate or machinery and equipment. In an engagement that does not involve material amounts of fixed assets, the valuer may make telephone calls to office furniture vendors or use blue books to value vehicles. In any event, the determination of the FMV should be properly documented.

Some valuers perform a liquidation value analysis on either a separate schedule or in their working papers and present it only if applicable. The liquidation percentages applied should be based on the valuer's research (and sometimes judgment) as to what percentage of the value of assets and liabilities will be realized in the event of an orderly liquidation. An orderly liquidation allows a reasonable amount of time to liquidate the assets and liabilities as compared with a forced liquidation, or fire sale.

The premise of highest and best use employed in real estate appraisals also pertains to business valuations. Generally, the business operation's highest and best use is the same operation that is currently being conducted. However, the highest and best use could be to realize the liquidation value of the assets. This would be particularly true if the breakup value of the assets and the liabilities would exceed the return that can be realized by keeping a marginally profitable, or losing company, as a going concern.

In order for the analysis to be complete, the expenses of administering the liquidation and any resulting income taxes should be included. In this case, the asset composition of XYZ clearly shows that liquidation value is less than the adjusted book value, so there is no need to calculate the administrative cost of liquidation. Schedule A-4.6 shows that after adjustments, the adjusted book value of XYZ, is $1,172,227.

SCHEDULE A-4.6
ADJUSTED BOOK VALUE AND ORDERLY LIQUIDATION
DECEMBER 31, 1999

	Book Value	Adjustments	Adjusted Book Value	Liquidation Percent	Liquidation Value
Current Assets					
Cash	$ 240,664	$ -	$ 240,664	100.00	$ 240,664
Inventories	244,000	(64,000)	180,000	75.00	135,000
Prepaid Expenses	365,848		365,848	50.00	182,924
Total Current Assets	$ 850,512	$ (64,000)	$ 786,512		$ 558,588
Fixed Assets					
Gross Fixed Assets	$ 500,000	$ (250,000)	$ 250,000	80.00	$ 200,000
Accumulated Depreciation	150,000	(150,000)	-		-
Net Fixed Assets	$ 350,000	$ (100,000)	$ 250,000		$ 200,000
Other Assets					
Security Deposits	$9,200		$ 9,200	100.00	$ 9,200
Other Assets	1,140,803		1,140,803	80.00	912,642
Total Other Assets	$1,150,003	$ -	$ 1,150,003		$ 921,842
TOTAL ASSETS	**$2,350,515**	**$ 164,000)**	**$ 2,186,515**		**$ 1,680,430**
Current Liabilities					
Accounts Payable	$ 217,592		$ 217,592	100.00	$ 217,592
Long-Term Debt - Current Portion	697,088		697,088	100.00	697,088
Accrued Expenses	44,528		44,528	100.00	44,528
Payroll Taxes Payable	55,080		55,080	100.00	55,080
Total Current Liabilities	$1,014,288	-	$ 1,014,288		$ 1,014,288
Total Liabilities	$1,014,288	$ -	$ 1,014,288		$ 1,014,288
Stockholders' Equity					
Common Stock	$80,000		$ 80,000		$ 80,000
Retained Earnings	1,256,227	(164,000)	1,092,227		586,142
Total Stockholders' Equity	$1,336,227	$ (164,000)	$ 1,172,227		$ 666,142
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	**$2,350,515 $**	**(164,000) $**	**2,186,515**		**$ 1,680,430**

Exhibit A-4.7

Buildup Method to Determine Discount and Capitalization Rates

As mentioned earlier, the valuer can use several methods to determine discount and capitalization rates. The important concept to remember is to make certain that the benefit stream that will be discounted or capitalized is matched with the appropriate rate for that benefit stream. This means that a cash flow discount rate should be used to discount cash flow, an earnings discount rate for earnings, and so on.

Section 6 of Revenue Ruling 59-60 states the following.

> In the application of certain fundamental valuation factors, such as earnings and dividends, it is necessary to capitalize the average or current results at some appropriate rate. A determination of the proper capitalization rate presents one of the most difficult problems in valuation.

In the text of Revenue Ruling 68-609, capitalization rates for excess earnings of 15 percent to 20 percent were mentioned as an example. Many appraisers are under the misconception that the capitalization rate must stay within this range. In reality, the capitalization rate must be consistent with the rate of return currently needed to attract capital to the type of investment in question.

In Schedule A-4.7, "Discount and Capitalization Rates," discount and capitalization rates applicable to XYZ Bar and Grill, Inc. (XYZ) were determined. The components of the discount rate include a safe rate which indicates the fact that any investor would receive, at a bare minimum, an equivalent rate for a safe investment. In this particular instance, U.S. Treasury Bonds are used as an indication of a safe rate.

An equity risk premium is added to the safe rate which represents the premium that common stockholders received in the public marketplace over investors in long-term government bonds. This indicates that because equity securities are considered to be more risky by the investor, a higher rate of return has been required over the period of time indicated in the calculation of this premium.

Additional premia have been added to reflect size differentials relating to XYZ. An adjustment has also been made for other risk factors. In this instance, 1 percent has been added to reflect an additional level of risk. This company is highly profitable and carries no significant long-term debt. Revenues have been stable, but their limited access to capital markets, due to their private company status, would make XYZ marginally more risky than a public counterpart.

Summing all of these items result in the derivation of a discount rate applicable to net cash flow. An additional increment was added to reflect the increased risk associated with net income. The mathematical formula to distinguish between a discount rate and a capitalization rate is the subtraction of the present value of the long-term sustainable growth from the discount rate. The present value of the long-term sustainable growth has been included at a rate of 3 percent for XYZ. This rate has been based on our expectation that XYZ will experience the median U.S. long-term inflationary growth.

An additional 4-percent premium has been added to this capitalization rate in order to determine the capitalization rate for excess earnings. This is based on the appraiser's estimate of the amount of additional risk associated with the intangible assets of the business. Since intangible assets by their nature are riskier than the entire business enterprise, which consists of tangible and intangible assets, a higher capitalization rate must be considered in the calculation of intangible value.

The discount rate illustrated in this section relates to that which would be used in the determination of the cost of equity of a business. There will be valuations where the capital structure may include a substantial amount of debt, and in those instances, it may be desirable to value the entity on a "debt-free" basis using a weighted average cost of capital (WACC) intended to help the valuer estimate the value of the total invested capital of the enterprise rather than only the equity.

The WACC is a combination of (1) the required rate of return on the equity of the company and (2) the required rate of return on the debt of the company. The WACC is used when the appraiser uses a debt-free method to determine the value of the invested capital of the appraisal subject (Invested capital = Debt and equity).

The theory behind a WACC is simple. Since a company is financed partly with debt and partly with equity, the return on investment should consider the risk of each element. Since the business owner is not directly responsible for the debt (assume no personal guarantee), the bank, not the business owner, is the one that is at risk for that portion of the invested capital. Therefore, if the benefit stream comprises part debt and part equity, it would seem logical that the risk is reduced on the overall capital for the investors.

The WACC is determined using the following formula:

$$(k_e \times W_e) + (k_d[1 - t] \times W_d)$$

where:

k_e = Required rate of return for the company's equity capital (discount rate)

k_d = Company's cost of debt capital (borrowing)

W_e = Percentage of equity capital in the company's capital structure

W_d = Percentage of debt capital in the company's capital structure

t = Company's effective income tax rate

There is no correct or incorrect method of building up discount and capitalization rates as long as they are developed consistently and are well supported. Practitioners need to remember that the objective of the engagement is to give an opinion of value of a business interest, and not to determine a discount rate or capitalization rate. These rates are important tools in the valuation process and practitioners should certainly understand their derivation. However, they need to remember that *ultimately the final result must make sense.*

SCHEDULE A-4.7
XYZ BAR AND GRILL, INC.
DISCOUNT AND CAPITALIZATION RATES

Appraisal Date Long-Term Treasury Bond Yield		6.00[1]
Equity Risk Premium—Stocks over Bonds	+	7.00[2]
Average Market Return	=	13.00
Benchmark Premium for Size	+	6.00[3]
Adjustments for Other Risk Factors	+	1.00[4]
Discount Rate for Net Cash Flow	=	20.00
Increment Specific to Net Earnings	+	4.00[5]
Discount for Rate for Net Earnings	=	24.00

Capitalization Rates

Discount Rate for Net Earnings		24.00
Growth Rate	-	3.00
Capitalization Rate for Net Earnings	=	21.00
Excess Earnings Premium	+	4.00
Capitalization Rate for Excess Earnings	=	**25.00**

1. *Federal Reserve Bulletin*, Board Release H.15 issue for a 20-year U.S. Treasury Bond for December 31, 1999.
2. *Stocks, Bonds, Bills and Inflation 1999 Yearbook*, Ibbotson Associates, difference between the total returns on common stocks and long-term government bonds from 1926 to 1998.
3. *Stocks, Bonds, Bills and Inflation 1999 Yearbook*, Ibbotson Associates, difference between the total returns on small company stocks and large company stocks.
4. Appraiser's judgment based on the analysis discussed throughout the valuation report.
5. The additional risk factor relating to the need to reinvest the cash flow of the company, based on documented work as performed by Joseph Agiato, CPA, CBA, ASA, as part of a culminating project at Lindenwood College.

Exhibit A-4.8

Capitalization of Benefits

Valuation is a prophecy of the future. Accordingly, the valuer estimates the future income of the valuation subject. Since the subject company is expected to grow at 3 percent, the valuer calculates the estimated future income based on a 3-percent growth rate, using the adjusted net income for 1999. (Schedule A-4.8, "Valuation Based on Capitalization of Benefits," shows the adjusted net income for years 1996 through 1999.) The valuer capitalizes the estimated future income at a rate of 21 percent to derive the indicated value from operations. The value of the net nonoperating assets is added to the indicated value to yield the total entity value, which can then be rounded off to $2.7 million

The practitioner should realize that valuation is not an exact science. The value determined is *the most probable price* within an acceptable range of values. Rounding off the results is acceptable in practice. Furthermore, the rounding may emphasize to the reader of the valuation report that precision is not the intention. The amount of rounding will depend upon the purpose and function of the report. In rounding, the practitioner considers the objective of providing a valuation that is supportable.

In Schedule A-4.8, a discount for lack of marketability of 10 percent was determined to be applicable to the controlling interest being valued. This was determined through the appraiser's research and analysis.

SCHEDULE A-4.8
XYZ BAR AND GRILL, INC.
VALUATION BASED ON CAPITALIZATION OF BENEFITS

Net Income (Loss)		$	613,294
One Plus the Long-Term Rate of Growth	x		1.03
Net Income for Capitalization		$	631,693
Capitalization Rate	÷		21.00%
Indication of Value—Control, Marketable		$	3,008,062
Less: Discount for Lack of Marketability	10.00%		(300,806)
Indication of Value—Control, Nonmarketable		**$**	**2,707,256**
Rounded		**$**	**2,700,000**

Exhibit A-4.9

Capitalization of Excess Earnings

Schedule A-4.9 illustrates the application of the capitalization of excess earnings method. This method is probably the most widely used for small businesses and professional practices.

In this illustration, the same estimate of future income is used as calculated in schedule A-4.8, "Valuation Based on Capitalization of Benefits." In practice, many practitioners mistakenly use a weighted average of historic adjusted earnings to perform the calculation of value. However, valuation theory is consistent in advising the use of estimated future income and a return on the net tangible assets based on their adjusted book value, not historic values. The return on net tangible assets includes only the operating assets and liabilities. The valuer based the 15-percent return rate on the risk associated with the composition of the assets and liabilities.

After subtracting the return on the net tangible assets to derive excess earnings, the valuer uses the appropriate capitalization rate to determine the intangible value of the enterprise. The adjusted book value of the net operating tangible assets is then added to the intangible value to derive the total operating entity value. In this instance, the value has been rounded to $2.3 million.

SCHEDULE A-4.9
XYZ BAR AND GRILL, INC.
VALUATION BASED ON CAPITALIZATION OF EXCESS EARNINGS

Normalized Net Income		$	631,693
Less: Return on Tangible Assets			(282,046)
Excess Earnings		$	349,648
Capitalization Rate		÷	25.00%
Value of Intangibles		$	1,398,590
Adjusted Tangible Book Value			1,172,227
Indication of Value—Control, Marketable		$	2,570,817
Less: Discount for Lack of Marketability	10.00%		(257,082)
Indication of Value—Control, Nonmarketable		**$**	**2,313,735**
Rounded		**$**	**2,300,000**

The calculation of the rate of return on tangible assets was determined as follows:

	Asset Value	Rate of Return	Return on Assets
Working Capital	$ 469,312	8.00%	$ 37,545
Fixed Assets	250,000	15.00%	37,500
Other Assets	1,150,003	18.00%	207,001
Total	$ 1,869,315	15.09%	$ 282,046

Exhibit A-4.10

Guideline Company Information

Schedule A-4.10 illustrates the calculation of value based on information about guideline companies. After comparing XYZ Bar and Grill, Inc. (XYZ) to the guideline companies, the valuer selected appropriate multiples. The price-to-earnings ratios for the guideline companies are considerably higher than that which the valuer would use for XYZ because of differences in size, ability to raise capital, and the overall risk associated with the company. Applying a 4.5 price-to-earnings ratio to the adjusted after-tax net income of $613,294, the valuer derives the operating entity value of $3,104,802, or $3.1 million rounded.

Similar analyses are done using the percent of sales and the multiple of book value. Since XYZ is considerably smaller than the guideline companies and more risky, a lower multiple is appropriate. Using a 45-percent multiple in calculating the value as a percent of sales, the valuer concludes that the entity value, rounded is $3.4 million. The multiples of cash flow and book value yields a rounded $3.3 million each.

Since public company multiples are considered to result in a minority, marketable interest, a control premium has been added to reflect the prerogatives of control and a discount for lack of marketability has then been subtracted. The size of the premium and discount is based on research and analysis performed by the appraiser.

SCHEDULE A-4.10
XYZ BAR AND GRILL, INC.
VALUATIONS BASED ON GUIDELINE COMPANY INFORMATION

Company		MVE To Revenues	MVE To Net Income	MVE To Cash Flow From Operations	MVE To Book Value
Rustic Saloon, Inc.		0.88	29.57	11.30	1.66
Atlantic Bar and Grill, Inc.		0.30	8.21	11.96	0.72
Gary's Old Town Tavern, Inc.		0.25	16.40	2.94	1.10
Moe's Tavern, Inc.		0.19	16.60	3.14	1.76
O'Reilly's Pub, Inc.		1.30	17.40	17.29	2.97
Chuggernauts, Inc.		0.85	18.65	8.23	2.71
Mean		0.63	17.80	9.14	1.82
Median		0.58	17.00	9.76	1.71
Selected Multiple		0.28	4.50	6.00	1.25
XYZ Bar and Grill Earnings Stream		10,701,880	613,294	483,515	2,350,515
Estimate of Value		$ 2,996,526	$ 2,759,824	$ 2,901,090	$ 2,938,144
Plus: Control Premium	25.00%	749,132	689,956	725,273	734,536
Indication of Value, Control, Marketable		$ 3,745,658	$ 3,449,780	$ 3,626,363	$ 3,672,680
Less: Discount for Lack of Marketability	10.00%	(374,566)	(344,978)	(362,636)	(367,268)
Indication of Value—Control, Nonmarketable		**$ 3,371,092**	**$ 3,104,802**	**$ 3,263,727**	**$ 3,305,412**
Rounded		**$ 3,400,000**	**$ 3,100,000**	**$ 3,300,000**	**$ 3,300,000**

Exhibit A-4.11

Financial Statement Projections

Schedules A-4.11a, "Financial Statement Projections—Statement of Income Fiscal Year Ending December 31," and A-4.11b, "Financial Statement Projections—Balance Sheet," show financial statement projections for five years based on the most recent year. The valuer either forecasts or obtains forecasts of the net income and operating cash flow of the business that will be used with the discounted future benefits method. The basis of these projections should be well documented and supported in the practitioner's working papers and should be guided by the AICPA Statement on Standards for Accountants' Services on Prospective Financial Information, *Financial Forecasts and Projections* (AICPA, *Professional Standards,* vol. 1, AT Sec. 200).

SCHEDULE A-4.11a
XYZ BAR AND GRILL, INC.
FINANCIAL STATEMENT PROJECTIONS—STATEMENT OF INCOME
FISCAL YEAR ENDING DECEMBER 31

	Adjusted 1999	2000	2001	2002	2003	2004
Sales	$10,701,880	$11,343,993	$11,911,193	$12,506,753	$13,132,091	$13,788,696
Cost of Goods Sold	4,381,264	4,764,477	4,764,477	4,877,634	4,990,195	5,239,704
Gross Profit	$ 6,320,616	$ 6,579,516	$ 7,146,716	$ 7,629,119	$ 8,141,896	$ 8,548,992
Operating Expenses	5,154,496	5,671,997	5,955,597	6,253,377	6,566,046	6,894,348
Earnings Before Depreciation, Interest and Taxes	$ 1,166,120	$ 907,519	$ 1,191,119	$ 1,375,742	$ 1,575,850	$ 1,654,644
Depreciation and Amortization	45,000	23,333	23,333	48,333	73,333	73,333
Earnings Before Interest and Taxes	$ 1,121,120	$ 884,186	$ 1,167,786	$ 1,327,409	$ 1,502,517	$ 1,581,311
Interest Expense	(124,853)	-	-	-	-	-
Interest Income	24,869	10,021	18,204	36,322	64,206	100,481
Earnings Before Taxes	$ 1,021,136	$ 894,207	$ 1,185,990	$ 1,363,731	$ 1,566,723	$ 1,681,792
Taxes	407,842	357,683	474,396	545,492	626,689	672,717
NET INCOME	**$ 613,294**	**$ 536,524**	**$ 711,594**	**$ 818,239**	**$ 940,034**	**$ 1,009,075**

SCHEDULE A-4.11b
XYZ BAR AND GRILL, INC.
FINANCIAL STATEMENT PROJECTIONS—BALANCE SHEET

	2000	2001	2002	2003	2004
Current Assets					
Cash	$ 260,383	$ 662,542	$1,186,504	$2,101,217	$3,063,187
Inventory	384,963	384,963	394,106	403,201	423,361
Other Current Assets	365,848	365,848	365,848	365,848	365,848
Total Current Assets	$1,011,194	$1,413,353	$1,946,458	$2,870,266	$3,852,396
Gross Fixed Assets	$ 500,000	$ 500,000	$ 500,000	$ 750,000	$ 750,000
Capital Expenditures	-	-	250,000	-	-
Accumulated Depreciation	173,333	196,666	244,999	318,332	391,665
Net Fixed Assets	$ 326,667	$ 303,334	$ 505,001	$ 431,668	$ 358,335
Total Other Assets	1,242,003	1,341,363	1,448,672	1,564,566	1,689,731
Total Assets	**$2,579,864**	**$3,058,050**	**$3,900,131**	**$4,866,500**	**$5,900,462**
Current Liabilities					
Accounts Payable	$ 255,498	$ 255,498	$ 261,566	$ 267,602	$ 280,982
Income Taxes Payable	89,421	118,599	136,373	156,672	168,179
Other Current Liabilities	99,608	99,608	99,608	99,608	99,608
Current Portion of Long-Term Debt	26,259	-	-	-	-
Total Current Liabilities	$ 470,786	$ 473,705	$ 497,547	$ 523,882	$ 548,769
Long-Term Debt	236,327	-	-	-	-
Total Liabilities	$ 707,113	$ 473,705	$ 497,547	$ 523,882	$ 548,769
Stockholder's Equity					
Capital Stock	$ 80,000	$ 80,000	$ 80,000	$ 80,000	$ 80,000
Retained Earnings	1,792,751	2,504,345	3,322,584	4,262,618	5,271,693
Total Stockholder's Equity	$1,872,751	$2,584,345	$3,402,584	$4,342,618	$5,351,693
Total Liabilities and Equity	**$2,579,864**	**$3,058,050**	**$3,900,131**	**$4,866,500**	**$5,900,462**

Exhibit A-4.12

Discounted Future Benefits

Schedule A-4.12 illustrates the calculation of net cash flow application of the discounted future benefits method. The forecasted earnings are discounted at a rate of 20 percent, determined in Schedule A-4.7, "Discount and Capitalization Rates," as being applicable to net cash flow, yielding the present value of the future earnings to the enterprise.

The application of this method involves discounting the forecasted benefits stream back to the valuation date using present value techniques. The period beyond the forecast period assumes stabilization of the benefit stream and is known as the *terminal period.* The value derived for the terminal period applies the capitalization of benefits method and is then discounted back to present value. This is known as the *terminal value.*

The terminal value in this example is calculated using a 3-percent growth rate and is then capitalized at a rate equal to the discount rate less the growth rate. The terminal value is then discounted using the same discount factor used in the fifth year of the projection.

SCHEDULE A-4.12
XYZ BAR AND GRILL, INC.
VALUATION BASED ON DISCOUNTED FUTURE BENEFITS

		2000	2001	2002	2003	2004	Residual
Net Income		$ 536,524	$ 711,594	$ 818,239	$ 940,034	$ 1,009,075	
Plus: Depreciation		23,333	23,333	48,333	73,333	73,333	
Less: Capital Expenditures		-	-	(250,000)	-	(250,000)	
Less: Increase in WC		(13,636)	29,178	14,699	17,240	4,727	
Less: Increase in Other Assets		(92,000)	(99,360)	(107,309)	(115,894)	(125,165)	
Plus: New Debt (Paydown)		(434,502)	(262,586)	-	-	-	
Net Cash Flow		$ 19,719	$ 402,159	$ 523,962	$ 914,713	$ 711,970	$ 733,329
Capitalized Value for Residual							$ 4,313,700
Discount Rate 20.00 %							
Discount Factor		0.9129	0.7607	0.6339	0.5283	0.4402	0.4402
Present Value of Cash Flows		$ 18,001	$ 305,922	$ 332,140	$ 483,243	$ 313,409	$ 1,898,891
Present Value of Cash Flows	$ 1,452,715						
Present Value of the Residual Value	1,898,891						
Indication of Value—Control, Marketable	$ 3,351,606						
Less: Discount for Lack of Marketability 10.00%	(335,161)						
Indication of Value—Minority, Nonmarketable	**$ 3,016,445**						
Rounded	**$ 3,000,000**						

Exhibit A-4.13

MARKET COMPARISON

Schedule A-4.13, "Institute of Business Appraisers, Inc., Transaction Analysis," includes market data available from the Institute of Business Appraisers, Inc. Various other databases have similar types of information about sales of closely held businesses. The practitioner can use the price-to-sales ratio or the price-to-earnings ratio to value a company. In this case, both revenues and earnings multiples were used to value the company.

The value estimate reached using many of the private databases includes only those assets that are generally sold as part of an asset sale (as opposed to a stock transaction). Therefore, the appraiser must add those assets and liabilities that would not be part of the transaction data in order to value the entire equity of the appraisal subject.

This data is one of many tools available to the valuer. An understanding of its limitations is essential to assure that the practitioner uses it properly. Such limitations may include lack of information about the individual companies listed, the terms of the sale, and any possible adjustments made to the financial statements.

Studies have been performed and published indicating that older transactions can still be used in many industries for smaller businesses. However, care should be exercised by the valuer. A detailed discussion of these studies is beyond the scope of this publication.

SCHEDULE A-4.13
INSTITUTE OF BUSINESS APPRAISERS, INC., TRANSACTION ANALYSIS

Business Type	Sale Date	Revenues	Earnings	Sale Price	Price to Revenues	Price to Earnings	Location
Restaurant Chain	79/	$ 2,200,000		$ 900,000	0.41		
Restaurant Chain	72/	3,800,000	100,000		0.29	11.00	
				1,100,000			
Restaurant Chain	74/	5,500,000		4,400,000	0.80		
Restaurant Chain	69/	8,600,000	100,000	2,600,000	0.30	26.00	
Restaurant Chain	70/	8,700,000	500,000	7,500,000	0.86	15.00	
Restaurant Chain	76/	15,000,000	900,000	6,100,000	0.41	6.78	
Restaurant Chain	84/06	17,172,000		13,300,000	0.77		
Restaurant Chain	84/12	21,000,000		16,000,000	0.76		
Restaurant Chain	79/	22,000,000		9,000,000	0.41		
Restaurant Chain	83/07	22,000,000		66,000,000	3.00		
Restaurant With Lounge	84/04	480,000		170,000	0.35		Oregon
Restaurant With Lounge	90/	480,000		50,000	0.10		CA
Restaurant With Cocktails	87/09	285,000	13,000	160,000	0.56	12.31	California
Restaurant With Cocktails	92/02	300,000		115,000	0.38		CA
Restaurant With liquor	93/	400,000		50,000	0.13		IL
Restaurant and Bar	89/	600,000	100,000	250,000	0.42	2.50	NC
Restaurant and Bar	91/	504,000	92,000	410,000	0.81	4.46	ID
Restaurant and Bar	90/	540,000	90,000	175,000	0.32	1.94	TX
Restaurant and Bar	85/04	550,000		309,000	0.56		D.C.
Restaurant and Bar	85/12	960,000		425,000	0.44		Cal/Ariz/Nev
Restaurant With Lounge	93/	435,000	57,000	142,000	0.33	2.49	
Restaurant With Lounge	87/03	480,000	42,000	150,000	0.31	3.57	New England
Restaurant With Lounge	93/	600,000	50,000	210,000	0.35	4.20	NC
Restaurant With Lounge	93/	1,000,000	36,000	410,000	0.41	11.39	NC
Restaurant—Beer and Burgers	93/06	604,000	100,000	275,000	0.46	2.75	FL
Restaurant With Cocktails	94/12	743,000		100,000	0.13		WA
Restaurant With Cocktails	90/11	968,000	201,000	135,000	0.14	0.67	MN
Restaurant With Cocktails	94/05	1,750,000		295,000	0.17		WA
Bar With food	91/	406,000	45,000	72,000	0.18	1.60	ID
Cocktail Lounge	83/07	412,000		142,000	0.34		Calif/Ariz/Nev.

SCHEDULE A-4.13
INSTITUTE OF BUSINESS APPRAISERS, INC., TRANSACTION ANALYSIS

Business Type	Sale Date	Revenues	Earnings	Sale Price	Price to Revenues	Price to Earnings	Location
Sports Grill	95/11	420,000		100,000	0.24		CA
Cocktail Lounge	92/04	444,000	50,000	173,000	0.39	3.46	CA
Tavern	88/03	450,000		120,000	0.27		Midwest
Restaurant—Sports Bar	94/06	450,000		80,000	0.18		OR
Tavern	90/11	520,000		125,000	0.24		NY
Pub	91/	534,000	75,000	165,000	0.31	2.20	IL
Sports Bar—Restaurant	95/07	800,000	150,000	120,000	0.15	0.80	FL
Mean					**0.45**	**6.28**	
90th Percentile					**0.78**	**13.12**	
75th Percentile					**0.44**	**9.95**	
Median					**0.35**	**3.52**	
25th Percentile					**0.24**	**2.27**	
10th Percentile					**0.15**	**1.36**	
Selected Multiple					**0.35**	**3.52**	
XYZ Bar and Grill Earnings Stream					$10,701,880	$1,241,120	
Indication of Value					$ 3,745,658	$4,362,537	
Calculation of Retained Assets							
Cash					240,664	240,664	
Inventories					244,000	244,000	
Prepaid Expenses					365,848	365,848	
Security Deposits					9,200	9,200	
Total Liabilities					(1,014,288)	(1,014,288)	
Estimate of Value—Control, Nonmarketable					**$ 3,591,082**	**$4,207,961**	
Rounded					**$ 3,600,000**	**$4,200,000**	

Schedule A-4.14

RECONCILIATION OF VALUES

After the appraiser tests all methods that are deemed applicable in the appraisal, a final estimate of value should be reached. After the estimate of the operating company is reached, the nonoperating assets can be added to reach the equity value for the company.

SCHEDULE A-4.14
RECONCILIATION OF VALUE

	Value (Dollars)	Weight (Percent)	Weighted Value (Dollars)
Market Approach Methods			
Guideline Co.—MVE to Rev.	$3,400 000	15%	$ 510,000
Guideline Co.—MVE to Net Income	3,100,000	15%	465,000
Guideline Co.—MVE to Cash Flow	3,300,000	15%	495,000
Guideline Co.—MVE to Book Value	3,300,000	10%	330,000
Transaction Data—Price to Revenues	3,600,000	15%	540,000
Transaction Data—Price to Earnings	4,200,000	10%	420,000
Income Approach Methods			
Capitalization of Earnings	2,700,000	5%	135,000
Discounted Cash Flow	3,000,000	15%	450,000
Excess Earnings	2,300,000	0%	0
Asset Approach Methods			
Adjusted Book Value	1,200,000	0%	0
Liquidation Value	666,000	0%	0
Value of Operating Entity			$ 3,345,000
Nonoperating Assets (Liabilities)			(297,787)
Value of Equity			**$ 3,047,213**
Rounded			**$ 3,000,000**

APPENDIX B

FINANCIAL RATIOS

Financial ratios are excellent tools for analysts to use when evaluating a company's performance. A company's ratios can be compared and contrasted with historic ratios for the same company, ratios of similar companies, or industry benchmarks. Care must be taken when applying ratio analysis, as with any other tool, ratios can be dangerous in the hands of an unwitting user. First and foremost, ratios are not reasons, they are indicators as to the performance of a company. Before ratios are used in an analysis, an analyst must understand what happened to the company that made a ratio notable.

Second, a user must know how comparable ratios were calculated. Regularly used sources for industry ratios compute their ratios differently. Some sources use strictly average year or year-end information, depending on their source information. Most sources list the calculations that were performed to arrive at the published ratio. By understanding the calculations that were performed, an analyst can learn how to adjust the ratios for comparability. A ratio analyst must make certain that the ratios prepared for comparison were calculated using the same basis, or risk drawing inaccurate conclusions from their analysis.

The following list of ratios and interpretations was prepared as a general overview of some ratios commonly used in business valuation.

Liquidity Ratios

Ratio	Formula	Interpretation
Current Ratio	Total Current Assets / Total Current Liabilities	This ratio is a rough indication of a firm's ability to service its current obligations
Quick Ratio	Cash and Equivalents & Net Trade Receivables	Also known as the "ACID TEST" ratio and is a more conservative measure of liquidity
Days Accounts Receivable Outstanding	Average Receivables Balance *365 / Revenue	Average number of days it takes for a company to receive payment for goods and services
Days Accounts Payable	Average Accounts Payable *365 / Cost of Sales	Average number of days trade debt is outstanding
Days Working Capital	Average Inventory *365 / Revenue	Average number of days that working capital can fund operations
Days Inventory	Average Inventory *365 / Revenue	Average number of days goods remain in inventory

Liquidity Ratios (continued)

Ratio	Formula	Description
Accounts Receivable to Sales	Accounts Receivable / Net Credit Sales	Level of accounts receivable outstanding compared to sales
Accounts Payable to Sales	Accounts Payable / Sales	Level of sales that is payable to suppliers
Current Liabilities to Net Worth	Current Liabilities / Net Worth	Measures the contribution of short-term creditors
Current Liabilities to Inventory	Current Liabilities / Inventory	Measures the proportion of inventory that was funded with current liabilities
Cost of Sales to Payables	Cost of Sales / Accounts Payable	Indicates the number of times payables turn over in a given year

Turnover Ratios

Ratio	Formula	Description
Receivables Turnover	Revenues / Average Net Receivables	Measures the number of times collections are made, and indicates liquidity of receivables
Cash Turnover	Revenue / Cash	Measures the magnitude that revenues exceed cash. Indicates cash required to generate sales
Inventory Turnover	Cost of Goods Sold / Average Inventory	Measures the times inventory is sold each year and indicates liquidity of inventory
Current Asset Turnover	Revenue / Current Assets	Indicates how well a company is using current assets to generate sales
Working Capital Turnover	Revenue / Average Working Capital	Multiple that projects the number of times working capital is converted to sales
Fixed Asset Turnover	Revenue / Fixed Assets	Indicates how well fixed assets are being used to generate sales
Total Asset Turnover	Revenue / Total Assets	Quantifies how effectively a company uses total assets to generate sales

Debt Ratios

Ratio	Formula	Description
Interest Coverage	EBIT / Interest Expense	Measures the ability if a company can cover interest payments with earnings
Current Assets to Short-Term Debt	Current Assets / Short-Term Debt	Multiple indicating a company's ability to meet current obligations
Accounts Payable to Total Debt	Accounts Payable / Total Debt	Indicates
Short-Term Debt to Total Debt	Short-Term Debt / Total Debt	Indicates the mixture of short and long-term debt
Long-Term Debt to Total Assets	Long-Term Debt / Total Assets	Percentage of Assets financed with long-term debt
Short-Term Debt Plus Long-Term Debt to Net Worth	Notes Payable & Long-Term Debt & Loans from Shareholders / Total Net Worth	Measures a firm's ability to service debt
Total Debt to Assets	Total Debt / Total Assets	Indicates the percentage assets funded with debt
Total Debt to Inventory	Total Debt / Inventory	Reflects a company's reliance on debt to fund inventory
Total Debt to Net Worth	Total Debt / Net Worth	Measures the degree of indebtedness relative to total capital

Risk Ratios

Ratio	Formula	Description
Fixed Assets to Net Worth	Fixed Assets / Net Worth	Measures the level to which fixed assets are funded with equity
Profitability Gross Margin	Revenues - Cost of Sales / Revenues	Indicates profitability of operations
EBITDA to Sales	Operating Income and Depreciation and Amortization / Revenues	Measures the percentage of sales to investors
Operating Margin	Net Operating Income / Revenue	Proportion of each dollar of sales that becomes income
Operating Cash Flow to Sales	Operating Income & Deregulation & Amortization / Sales	Measures the proportion of sales that is converted to operating cash flow

Risk Ratios (continued)

Ratio	Formula	Description
Pretax Return on Assets	Net Operating Income Before Taxes / Operating Assets	Measures a company's efficiency utilizing available resources
Aftertax Return on Assets	Net Operating Income After Taxes / Operating Assets	Indicates profits after taxes as a percent of sales and measures a company's ability to manage resources
Pretax Return on Net Worth	Earnings Before Taxes / Net Worth	Indicates how many dollars was returned on each dollar invested by shareholders
Aftertax Return on Net Worth	Net Income / Net Worth	Calculates equity holder's return on investment
Pre-Tax Return on Sales	Earnings Before Taxes / Revenue	Measures earnings before taxes for each dollar in sales
Aftertax Return on Sales	Net Income / Revenue	Indicates aftertax profitability

Working Capital Ratios

Ratio	Formula	Description
Working Capital	Current Assets - Current Liabilities	Measures a company's ability to cover short-term obligation
Working Capital to Sales	Working Capital / Sales	Proportion of working capital required to fund sales
Net Income to Working Capital	Net Income / Working Capital	Indicates after tax profitability of working capital
Inventory to Working Capital	Inventory / Working Capital	Measures a company's ability to fund inventory with working capital
Short-Term Debt to Working Capital	Short-Term Debt / Working Capital	Measures a firm's ability to cover Short-Term Debt with working capital
Long-Term Debt to Working Capital	Long-Term Debt / Working Capital	Indicates a company's dependence on long-term debt to finance operations

Operating Efficiency Ratios

Ratio	Formula	Description
Operating Expenses to Gross Margin	Operating Expenses / Gross Margin	Measures the impact of nonproduction costs on income
Operating Expenses to Sales	Operating Expenses / Revenue	Measures the effect of operating expense to sales
Depreciation & Amortization to Sales	Depreciation & Amortization / Sales	Measures the level of noncash expenses to sales
Total Assets to Sales	Total Assets / Sales	Signifies the level of assets used to generate sales
Sales to Net Worth	Sales / Net Worth	Indicates the number of times that equity is used to generate revenues
Sales to Fixed Assets	Sales / Fixed Assets	Indicates the number of times fixed assets are used to generate revenues
Inventory Cost of Sales	Inventory / Cost of Sales	Measures how much of the cost of sales is attributed to inventory
Intangible Assets to Sales	Intangible Assets / Sales	Measures the proportion of intangible assets to sales

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Government Regulatory Material

Appeals and Review Memorandums (ARMs)

34

68

Revenue Rulings

59-60

65-192

65-193

68-609

77-287

83-120

85-75

93-12

Review Procedures

66-49

77-12

Internal Revenue Code (IRC) Sections

338

341

1060

2031

2036(c)

2501

2701

2702

2703

2704

6659

6660

056601