AMERICAN SOCIETY OF APPRAISERS

BV101

Basic Fundamentals of Business Valuation

Manual

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Table of Contents

LESSON PLAN OVERVIEW 7

Purpose of the Course 7

Classroom or Online Offerings 7

LESSON 1: FOUNDATION OF BUSINESS VALUATION 8

Business Valuation Standards 8

USPAP Standards and Standard Rules 9

Revenue Rulings 10

Appraisers Penalties 12

Business Valuation Organizations (United States) 13

LESSON 2: INTRODUCTION TO BUSINESS VALUATION 15

Purposes for Business Appraisals 15

Business Appraisal Referral Sources 15

Commonly Valued Ownerships 16

Control versus Minority Ownership 16

Valuation Approaches and Methods 16

Levels of Value Chart 18

LESSON 3: BV DEFINITIONS AND TERMINOLOGY 20

Valuing Equity or Invested Capital 24

Cash Basis or Accrual Basis of Accounting 25

Valuation Principles 25

Indications of Value versus Opinions of Value 26

Identification of Different Profitability Measurements 26

LESSON 4: THE VALUATION PROCESS 28

Steps in the valuation process 28

Request for Documents 28

Assembling Business Valuation Information 30

Types of Balance Sheet Accounting Procedures 33

Industry Benchmark Ratio Analysis 34

Quantitative Z-Score Risk Analysis 35

Compound Annual Growth Rates 36

Entity Structures Defined 37

LESSON 5: INTRODUCTION TO THE INCOME APPROACH 38

Overview of Discount and Capitalization Rates 38

Long-Term Sustainable Growth Rate 38

Capitalization of Earnings Method 40

Discounted Future Earnings Method 40

Time Value of Money Concept 42

Equity and Invested Capital Earnings Streams 43

LESSON 6: COMPONENTS OF THE FINANCIAL STATEMENT 45

Anatomy of the Income Statement 45

Anatomy of the Balance Sheet 46

LESSON 7: ADJUSTING THE FINANCIAL STATEMENTS 51

Normalizing Financial Information for BV Purposes 51

Control versus Minority Interest Adjustments 51

Adjustments to the Balance Sheet 51

Common Balance Sheet Adjustments 52

Common Income Statement Adjustments 55

Calculating Net Changes in Working Capital 59

Calculating Changes in Capital Expenditures 59

LESSON 8: DEVELOPING RATES OF RETURN 60

Data Sources for Discount & Capitalization Rates 61

Discount and Capitalization Development Models 61

Buildup Model 61

Weighted Average Cost of Capital 65

Capital Asset Pricing Model 67

Modified Capital Asset Pricing Model (MCAPM) 68

Private Cost of Capital Model (PCOC) 70

Market Derived Discount Rates 71

Factor Rating Model 72

Risk Premium Guideline Table 74

Implied Private Company Pricing Line (IPCPL) 74

Indications of Value 76

LESSON 9: FINANCIAL FORECASTING 78

Forecasting versus Projections 78

Developing Financial Projections 78

Percentage Technique 80

Fixed and Variable Cost Technique 81

Most Likely, Best-Case or Worst-Case Scenario Technique 81

Historical Weighting Technique 82

Probability Weighted Expected Earnings Model 84

Balance Sheet Projections 84

Internal Consistency 85

Final Forecasting Comments 86

Converting Rates of Return 88

LESSON 10: INTRODUCTION TO THE MARKET APPROACH 89

Market Based Methods 89

Finding Comparable Transactions 89

Guideline Public Company Method 91

Matching Time Periods to Measured Market Multiples 95

Relationship between Market Multiples and Capitalization Rates 95

Adjustments to the Financials 95

Guideline Transaction Method 95

Direct Market Data Method (transactional method) 98

Converting Market Data into Valuation Multiples 100

Prior Transactions 101

Buy-Sell Agreements 101

Prior Offers 101

Industry Rules of Thumb 101

Justification of Purchase Price 102

Characteristics of Value 105

Strengths and Weaknesses of Market-based Methods 105

Adjusting Terms to Cash Equivalent Valuation Multiples 106

Other Common Adjustments 107

LESSON 11: INTRODUCTION TO THE ASSET APPROACH 108

Net Asset Value Method 109

Valuing Intangible Assets 111

Tax Effecting Adjustments 112

Valuing Goodwill 113

Negative Goodwill 117

Liquidation Value Method 118

Strengths and Weaknesses of Asset-based Methods 119

Characteristics of Value 120

Common Errors 121

LESSON 12: DISCOUNTS AND PREMIUMS 122

Adjustments to the Levels of Value 122

Application of Discounts 123

Discount for Lack of Marketability 123

Discount for Lack of Control 124

Voting versus Nonvoting Stock 124

Key Person Discount 125

Environmental and Litigation Discounts 125

Errors in Applying Discounts and Premiums 125

LESSON 13: RECONCILIATION OF VALUES 126

Willing Buyer and Willing Seller 128

ASA'S PRINCIPLES OF VALUATION COURSES 129

IMPLICIT VALUATION METHODS 130

CASE STUDY 132

APPENDIX: A 141

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Lesson Plan Overview

[1] The American Society of Appraisers (ASA) emphasizes the course materials are not authoritative. They are intended to be used as a foundation for lectures and discussion, in conjunction with observations by the course instructor and students.

In addition, the valuation process and approaches presented in this course are:

- Not the only valuation process and approaches used by competent appraisers.
- Not the only way individual valuation methods could or should be done.
- Not to be taken as a “cookbook” process or approach that may be applied to any appraisal situation.

Appraisals must be based on full knowledge of the facts and circumstances of the subject company, its industry, the economic environment, and the purpose of the analysis. A particular valuation process or approach that is relevant for one company at a particular point in time may not be appropriate for another company or a different point in time.

Purpose of the Course

[2] The purpose of this three-day course is an interactive style course that uses exercises to emphasize important concepts and to illustrate the application of methodologies. Students should be prepared to perform basic calculations (i.e., handheld calculator).

Participants in the class are likely to come from mixed backgrounds. This course intends to deal with general business valuation concepts without regard to the specific standard of value or purpose for the valuation.

It is unlikely that you are the only one who has questions. This course offers you the opportunity to learn by applying knowledge obtained throughout the three days. Students come from different practices and have varying experiences and viewpoints. It is possible your viewpoint will enhance the understanding of other students.

Classroom or Online Offerings

For on-site classes, each day starts at 8:30-11:30 and 12:30-4:30, with breaks throughout the day.

For online and/or virtual instruction (i.e., webinar or Zoom type format), the start times may vary.

Lesson 1: Foundation of Business Valuation

Business Valuation Standards

[4] There are various organizations that require appraiser to follow their business valuation standards. ASA has business valuation standards and appraiser belonging to ASA must also follow Uniform Standards of Professional Appraisal Practice (USPAP).

ASA through its Business Valuation Committee, has adopted business valuation standards in order to maintain and enhance the quality of business valuations for the benefit of the business valuation profession and users of business valuations. ASA's business valuation standards must be followed in all valuations of businesses, be they Candidates, Accredited Members (AM), Accredited Senior Appraisers (ASA), or Fellows (FASA).

Retention of work papers and report should maintain custody for a period of at least five (5) years after preparation, or at least two (2) years after final disposition and/or testimony. ASA Standards are designed to provide guidance to ASA members and to provide a structure for regulating the development and reporting of business valuations through uniform practices and procedures.

- BVS-I General Requirements for Developing a Business Valuation
- BVS-II Financial Statement Adjustments
- BVS-III Asset-Based Approach to Business Valuation
- BVS-IV Income Approach to Business Valuation
- BVS-V Market Approach to Business Valuation
- BVS-VI Reaching a Conclusion of Value
- BVS-VII Valuation Discounts and Premiums
- BVS-VIII Comprehensive Written Business Valuation Report
- BVS-IX Intangible Asset Valuation
- SBVS-I Guideline Public Company Method
- SBVS-II Guideline Transaction Method
- AO-I Financial Consultation and Advisory Services
- PG-I Litigation Support: Role of Independent Financial Expert
- PG-II Valuation of Partial Ownership Interests

USPAP Standards and Standard Rules

The purpose of the Uniform Standards of Professional Appraisal Practice (USPAP) is to promote and maintain a high level of public trust in appraisal practices by establishing requirements for appraisers. It is essential that appraisers develop and communicate their analyses, opinions, and conclusions to intended users of their services in a manner that is meaningful and not misleading. ASA also incorporates in their valuation standards of USPAP.

The appraisal Standards Board promulgates USPAP for both appraisers and users of appraisal services. The appraiser's responsibility is to protect the overall public trust and it is the importance of the role of the appraiser that places ethical obligations on those who serve in this capacity. USPAP reflects the current standards of the appraisal profession.

- Standards 1 & 2: Real Property Appraisal, Development and Reporting
- Standards 3 & 4: Appraisal Review, Development and Reporting
- Standards 5 & 6: Mass Appraisal, Development and Reporting
- Standards 7 & 8: Personal Property Appraisal, Development and Reporting
- Standards 9 & 10: Business Appraisal, Development and Reporting

> *<u>Standard 9</u> is directed toward the supportive aspects of developing a credible appraisal regarding a business enterprise or intangible asset.*
>
> *<u>Standard 10</u> addresses the content and level of information in communicating the results in an appraisal report. USPAP Standards Rule 10-2 states: "each written report for an interest in a business enterprise or intangible asset must be prepared in accordance with one of the following options and prominently state which option is used: Appraisal Report or Restricted Appraisal Report." The essential difference between these two reports is in the level of information provided.*

An "Oral Appraisal Report" is one additional option available – however, this type of report must address all of the substantive matters as in an Appraisal Report or Restricted Appraisal Report. (see VAB6 pgs. 36-37)

USPAP defines "appraiser," one who is expected to perform valuation services competently and in a manner that is independent, impartial and objective.

USPAP states: "an appraiser must prepare a workfile for each appraisal… A workfile must be in existence prior to issuing any report or other communication of assignment results.

The appraiser's work papers must contain written support for; (i) information analyzed, (ii) appraisal procedures employed, (iii) the reasoning that supports the analyses, opinions and conclusions, (iv) along with a signed certification.

USPAP Standards Rule 10-3 states[1]; "each written appraisal report must contain a signed certification that is similar to the following form":

I certify that, to the best of my knowledge and belief:

a) The statements of fact contained in this report are true and correct.

b) The reported analyses, opinions and conclusions are my personal, impartial, and unbiased professional analyses, opinions and conclusions.

c) I have no *(or the specified)* present or prospective interest in the property that is the subject of this report, and I have no *(or the specified)* personal interest with respect to the parties involved.

d) I have performed no *(or the specified)* services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.

e) I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.

f) My engagement in this assignment was not contingent upon developing or reporting predetermined results.

g) My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.

h) My analyses, opinions and conclusions were developed and this report has been prepared in conformity with the *American Society of Appraisers* and *Uniform Standards of Professional Appraisal Practice*.

i) No one provided significant business and/or intangible asset appraisal assistance to the person signing this certification.

Revenue Rulings

The majority of business appraisers follow several Internal Revenue Code (IRC) Revenue Rulings when performing business valuation assignments. Rulings are quite different from standards. Standards you are held to, while rulings you elect to follow. As you will learn in this course, even the Appraisal Standards Board has incorporated many of IRC Revenue Rulings in their development of USPAP Standards.

[1] Source: USPAP

Revenue Ruling 59-60

- Revenue Ruling 59-60 could be considered the bible for most business appraisers performing work for IRS purposes (i.e., estate and gift tax). Developed in 1959, this revenue ruling originally was enacted for valuing shares of capital stock of closely held corporations for estate tax and gift tax purposes.

Several Highlights of RR 59-60:

- Definition of "fair market value" is defined as "the price at which the property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of the relevant facts. Court decisions frequently state in addition that the hypothetical buyer and seller are assumed to be able, as well as willing, to trade and to be well informed about the property and concerning the market for such property."

- A sound valuation will be based upon all the relevant facts, but the elements of common sense, informed judgment and reasonableness must enter into the process of weighting those facts and determining their aggregate significance.

Commonly referred to as the "Eight Factors of RR 59-60"

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) Whether or not the enterprise has goodwill or other intangible value.
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 line of business having their stocks actively traded in a free and open market, either on an exchange or over-the-counter.

Valuation of securities is, in essence, a prophesy as to the future and must be based on facts available at the required date of appraisal.

RR 59-60 states: weights to be accorded various factors:

- Depending upon the circumstances in each case, certain factors may carry more weight than others because of the nature of the company's business.

- Earnings may be the most important criterion of value in some cases, whereas asset value will receive primary consideration in others.

- In general, the appraiser will accord primary consideration to earnings when valuing stocks of companies which sell products or services to the public.

- Conversely, in the investment or holding type of company, the appraiser may accord the greatest weight to the assets underlying the security to be valued.

RR 59-60 states: Averaging of Factors:

- Because valuation cannot be made on the basis of a prescribed formula, there is no means whereby the various applicable factors in a particular case can be assigned mathematical weights in deriving the fair market value. For this reason, no useful purpose is served by taking the average of several factors (for example, book value, capitalized earnings and capitalized dividends) and basing the valuation on the result. Such a process excludes active consideration of other pertinent factors, and the end result cannot be supported by a realistic application of the significant facts in the case except by mere chance.

RR 59-60 is the most often quoted revenue ruling in the business valuation profession. While the focus of RR 59-60 is geared toward valuing shares of closely held corporations, some form of this ruling is found in every BV society's standards, as well as USPAP Standards.

Highlights of Revenue Ruling 68-609

- In 1920 the U.S. Treasury Department issued A.R.M. #34 (Appeals and Review Memorandum) and in 1968 the IRS restated A.R.M. #34 into Revenue Ruling 68-609 which is best known as the "formula approach" to estimate the value of breweries and distilleries' goodwill destroyed during prohibition. (see VAB6 pgs. 344-345)

- This ruling is best known for its use in estimating market value of a business' intangibles. The formula approach is commonly referred to as the excess earnings method.

- RR 68-609 cautions: "…the 'formula' approach should not be used if there is better evidence available from which the value of intangibles can be determined."

Appraisers Penalties

- The Pension Protection Act of 2006 added Internal Revenue Code Section 6695A, which provides penalties that are aimed directly at an appraiser who provides appraisal services for income tax purposes.

- Will your USPAP appraisal report, prepared for financing or litigation ever be used for income tax purposes?

Minimize your exposure by adhering to:

- USPAP Standards Rule 10-2(a)(i): "must identify the client and any other intended users, by name or type."

- USPAP Standards Rule 10-2(a) (ii): "state the intended use of the appraisal." (see VAB6 writing the report Chapter 22 pgs. 499-513)

Business Valuation Organizations (United States)

[5] The major business valuation and governing organizations are briefly described below. Admittedly, there are others, however, the other business valuation certifications or awards are not highly recognized in the business valuation or litigation communities. (see VAB6 Chapters 1 & 22)

American Society of Appraisers

The American Society of Appraisers is a multidiscipline organization offering professional designations in many areas (for example, real estate, machinery and equipment, and business valuation to name a few). For more information call (800) ASA-VALU or visit the website at www.appraisers.org.

- Accredited Member ("AM") certification requires the appraiser to have two years full-time or full-time equivalent work experience, completion of four courses of three days each and successful completion of a half-day exam following each of the three courses. No longer is a report required for peer review.
- The Accredited Senior Appraiser ("ASA") certification requires the appraiser to have 10,000 hours of business valuation experience, pass four levels of exams, a standard exam, and ethics exam, and submit one report for peer review. There are ongoing education and ethics requirements.
- FASA ("Fellow of the American Society of Appraisers") has met all of the ASA requirements and is voted into the college of fellows based on contributions to the professional and technical leadership.
- CEIV: The Certified in Entity and Intangible Valuations™ (CEIV™) credential is for professionals performing fair value measurements for corporate entities and intangible assets.

National Association of Certified Valuators & Analysts (NACVA)

The National Association of Certified Valuators & Analysts primary business valuation designation is the CVA. The CVA ("Certified Valuation Analyst") designation is earned by completing a seminar, passing an exam, and submitting a case study valuation report. There are periodic recertification requirements.

Association of International Certified Professional Accountants (AICPA)

In 1996, the AICPA's governing council authorized an accreditation in business valuation program. The ABV (Accredited in Business Valuation) requires the holder to be an AICPA member, pass exams, and demonstrate involvement in at least ten valuations. There are reaccreditation requirements.

International Society of Business Appraisers (ISBA)

International Society of Business Appraisers focuses on the valuation of small and main-street-sized businesses. Members who complete the education courses, pass a written test, and successfully write a demonstration report for peer review earn the professional designation of Business Certified Appraiser (BCA).

Institute of Business Appraisers (IBA)

IBA issued the CBA (Certified Business Appraisers) certification. IBA was sold to NACVA.

Lesson 2: Introduction to Business Valuation

[7] The business valuation profession has come a long way, particularly since the mid-1980s. Since then, many books have been authored and published by varying individuals. The Courts (judges) and the Internal Revenue Service (engineers) have become more knowledgeable on the subject of business valuation. Business valuation opinions of value are not applied in a black and white approach, but rather the combination of art and science. (see VAB6 Chapter 2)

Purposes for Business Appraisals

[8] There are a variety of purposes for business appraisals. One should not assume valuing a business for one purpose can be used for another completely different purpose. Example: a valuation assignment used for an estate settlement versus one for financial reporting purposes. (see VAB6 pg. 41)

[9] The major uses for a business valuation are:

- Estate settlement or planning
- Gifting (tax planning)
- Marital dissolutions
- Lending – Conventional or Small Business Administration (SBA)
- Financial Reporting purposes (Financial Accounting Standards Board – FASB)
- Shareholder disputes (dissolutions or minority interest oppression)
- Merger and Acquisitions
- Employee Stock Ownership Plans (ESOP)
- Purchase and/or selling

Business Appraisal Referral Sources

[10] How you market, answer the telephone and network will have important implications on the success of your business valuation practice. Below is a short list of sources that refer business valuation assignments:

- Accountants/CPAs
- Attorneys
- Lenders (SBA)
- Business Brokers
- Other Appraisal Disciplines (e.g., commercial real estate appraisers)
- Client referrals
- Conference presentations (other than to the BV profession)
- Company's website

Commonly Valued Ownerships

Ownership in an entity can be in many different forms. Limited Liability Company (LLC) or Partnerships are generally in the form of an ownership interest. Ownership in a corporation (C or S) are called shareholders, which hold stock.

- [11] Stock can be: (i) common stock, (ii) preferred stock, (iii) voting and (iv) non-voting shares.
- Partnerships have two levels of ownership: (i) general partner(s) and (ii) limited partner(s) both owning interests.

Control versus Minority Ownership

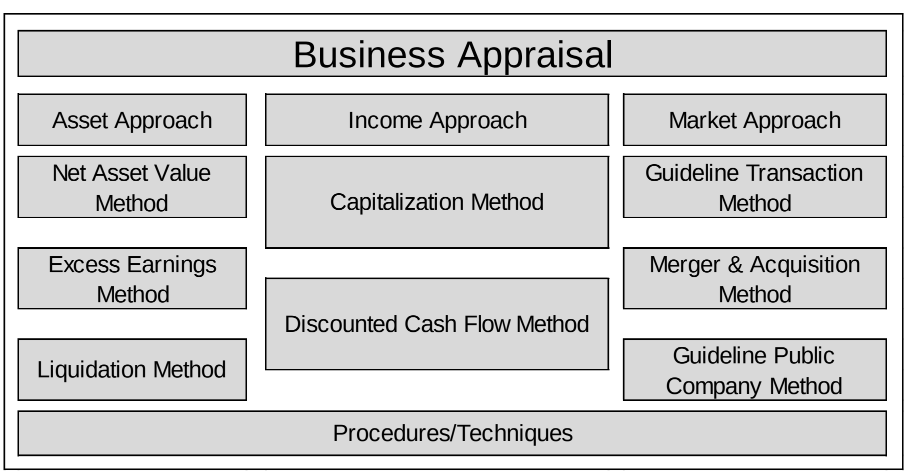
[12] Ownership is either on a control (majority) or minority interest, while the basis is either "as-if freely traded basis" (marketable) or "on a closely held basis" (non-marketable) value. (see VAB6 pgs. 25-27)

- [13] Controlling interests (more than 50%)
- Majority interest in a noncontrolling formation (i.e., one 40% versus two 30% interests)
- Minority interest (less than 50%)
- Minority interest on a controlling formation (i.e., one 2% general partner and two 49% limited partner interests)

Valuation Approaches and Methods

[14] There are distinct differences between approaches and methods. There are conceptually three broad approaches in business valuation: the asset, income, and market approaches. Within valuation approaches are various methods, which are a specific way to determine value. Valuation procedures are used within a method. (see VAB6 pgs. 51-54)

[15] The following articulates the aforementioned discussion.



Asset Approach

The "Asset Approach" is a general way of determining a value indication of a business, business ownership interest, or security using one or more methods based on the value of the assets net of liabilities. Commonly used methods are:

- Net Asset Value Method

  (Net Tangible Asset Method)

  (Adjusted Book Value Method)

- Excess Earnings Method
- Liquidation Method

Income Approach

The "Income Approach" is a general way of determining a value indication of a business using one or more methods that converts anticipated economic benefits into a present value single amount.

- Capitalization of Earnings Method

  (i.e., Single Period Capitalization Model)

- Discounted Future Earnings Method

  (i.e., Discounted Cash Flow Method)

  (i.e., Multiple Period Discounting Model)

Market Approach

The "Market Approach" is a general way of determining a value indication of a business by using one or more methods that compare the subject to similar businesses, business ownership interests, securities, or intangible assets that have been sold in the marketplace.

- Guideline Transaction Method
- Merger & Acquisition Method
- Guideline Public Company Method

Utilizing all of the valuation approaches in an assignment is highly recommended. The practical matter is each valuation approach will yield a different indication of value. The spread or range of values should be reasonable. More on this topic will be discussed in reconciliation of values later.

Levels of Value Chart

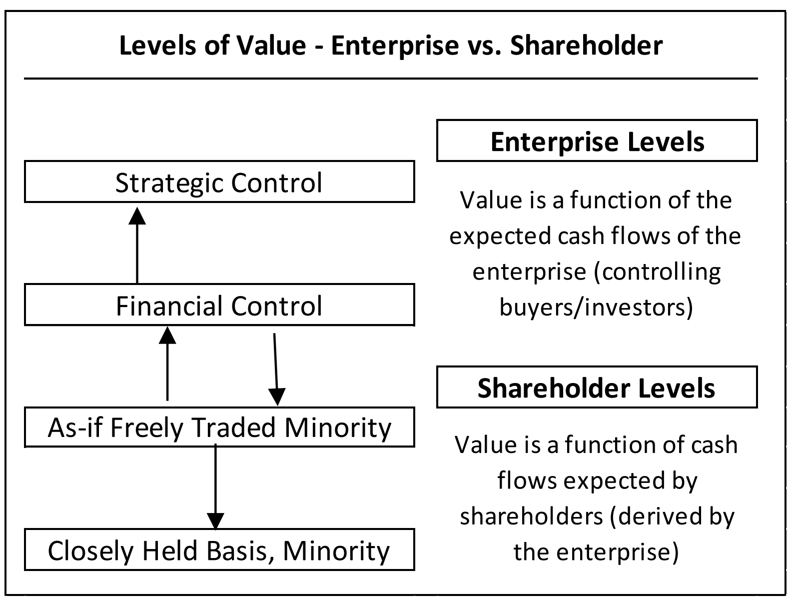
[16] There are three levels of value relevant to the valuation of closely held businesses:

- Controlling Interest – An interest that possesses "the power to direct the management and policies of a business enterprise" (ASA Business Valuation Standards, Glossary Definitions).

- Marketable, Minority Interest – A minority interest (or noncontrolling interest) is "an ownership interest less than 50% of the voting interest in a business enterprise (ASA Business Valuation Standards, Glossary Definitions). A marketable, minority interest (or as-if freely traded, minority interest) is a minority interest in an enterprise that does not suffer from illiquidity – usually relevant to per share interests in publicly held equities that trade freely on an open market.

- Non-marketable, Minority Interest – A non-marketable, minority interest relates to a *closely held interest* that does not have the same level of liquidity or marketability as a controlling interest or shares held in a company.

The basic levels of value chart are presented here in very simple terms, the differences between control and minority values, as well as the marketability or lack of, that must be considered. (see VAB6 pgs. 54-57)



- Strategic or synergistic control value is generally thought of as value to a particular buyer who has the ability to create additional benefits of ownership not available to a financial buyer through synergies unique to that buyer.

- Financial control value has control of operations and the ability to market and sell the business at any time.
- Marketable minority value has little or no power, but is highly liquid (meaning one can receive funds in a few days).
- Nonmarketable minority value has little or no power and limited liquidity due to the absence of a free and open market. This level reflects the fact that an interest is closely held and does not have the same level of liquidly or marketability as shares held in a publicly traded company.
- The consensus is “marketable” is the ability to receive cash almost immediately, and nonmarketable is it takes longer to receive funds.

Lesson 3: BV Definitions and Terminology

[18] Business valuation terms and meanings can be confusing. Consider the following terms; marketable and non-marketable.

- Marketable is commonly referred to as “the ability to quickly convert property to cash in a very short time period (days).”
- Non-marketable refers to the “inability to convert a business or business interest into cash within the aforementioned time period of marketability.”

[19] You may see the term “as-if freely traded” which is referring to the marketability status. IBM stock is considered marketable because you can sell a share of stock and receive the funds in a few days.

A closely held business’ share of stock that is not traded on an exchange cannot be sold in accordance with the aforementioned example. It will generally take considerably more time to sell a share of stock in a closely held company – hence it’s non-marketable status. Alternative terms used are “on a closely held basis” or “marketable on a closely held basis,” rather than non-marketable. This may be less confusing to the reader and non-appraiser users of the valuation report.

[20] The following are a few selected terms that will be used throughout this course. For the “full” version see the International Glossary of Business Valuation Terms (Issued February 2022).

- Asset (Asset-Based) Approach - a general manner of estimating the value of a business, using one or more methods based on a summation of the value of the assets, net of liabilities, where each has been valued using either the market, income, or cost approach.
- Income (Income-Based) Approach - a general manner of estimating the value of an asset, business, or investment using one or more methods that convert expected economic income into a present amount.
- Market (Market-Based) Approach - a general manner of estimating a value of an asset, business, or investment by using one or more valuation methods that compare the valuation subject to other assets, businesses, or investments that have been sold or for which price and other information is available.
- Capitalization of Earnings Method – a method within the income approach whereby expected economic income for a representative single period is converted to value through division by a capitalization rate.
- Capitalization Rate - a divisor used to convert into value the expected economic income of a normalized single period. The capitalization rate is generally calculated as a discount rate less a long-term growth rate.

- Discounted Cash Flow (DCF) Method – a method within the income approach whereby the present value of expected economic income is calculated using a discount rate.
- Discount Rate - a rate of return used to convert economic income into present value.
- Guideline Public Company Method – a method within the market approach whereby the value of a business is estimated by the application of multiples derived from market prices of securities of publicly traded companies that are engaged in the same or similar lines of business as the subject business.
- Guideline Transaction Method — a method within the market approach whereby the value of a business is estimated by application of multiples derived from one or more transactions of controlling interest in companies engaged in the same or similar lines of business as the subject business. Sometimes known as guideline merger and acquisition method.
- Excess Earnings Method - a method of estimating the value of a business, determined as the sum of (i) the value of the selected tangible asset base, and (ii) the value of all of the intangible asset (including goodwill) derived by capitalizing excess earnings. Sometimes referred to as the capitalized excess earnings method.
- Net Asset Value – the difference between a business' total assets and liabilities restated at a particular standard of value rather than accounting book values.
- Premise of Value - an assumption regarding the circumstances that may be applicable to the subject valuation; (e.g., going concern, liquidation value).
- Noncontrolling Interest – an ownership interest that lacks control of the business. Also known as minority or minority shareholding.
- Discount for Lack of Control — an amount or percentage deducted from the pro rata amount of 100% of the entity's Equity Value (when determined on a Controlling Interest basis) to reflect the absence of some or all of the economic benefits of Control.
- [21] Discount for Lack of Liquidity — an amount or percentage applied to the value of an ownership interest to reflect a relative lack of Liquidity.
- Discount for Lack of Marketability — an amount or percentage applied to the value of an ownership interest to reflect a relative lack of Marketability. (See Job Aid for IRS Valuation Professionals – issued Sept 2009).
- Liquidity - the ability to quickly or readily convert an asset, business, or investment to cash at minimal cost.
- Intangible Assets - an asset that lacks physical substance and derives value from the economic properties that grant rights and/or economic income to its owner (e.g., patents, copyrights, trademarks, or customer relationships).

- Goodwill - an intangible asset which represents any future economic benefit arising from a business or a group of assets which is not individually identified or separately recognized. Goodwill can arise as a result of name, reputation, customer loyalty, location, products and similar factors not separately identified. In the context of a business combination, goodwill is measured as the difference between (a) the aggregate of: (i) the value of the consideration transferred (generally at fair value), (ii) the amount of any noncontrolling interest, and (iii) in a business combination achieved in stages, the acquisition-date fair value of the acquirer's previously held equity interest in the acquiree, and (b) the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities as assumed.

- Tangible Asset - an asset that has physical form and derives value from its physical properties or tangible nature (e.g., real estate, property, plant, equipment). Contrast with intangible asset.

- Net Cash Flow to Equity - cash flow available to equity holders after funding business operations, paying taxes, making necessary capital investments, and servicing debt and debt equivalents, hybrid securities, and non-equity claims. See also Net Cash Flow to Invested Capital. Sometimes referred to as free cash flow to equity.

- Net Cash Flow to Invested Capital - cash flow available to all security holders after funding business operations, paying taxes, and making necessary capital investments. See also Net Cash Flow to Equity. Sometimes referred to as free cash flow to invested capital or free cash flow to the firm.

- Equity Value – the value of a business to tis equity holders.

- Invested Capital – the sum of a business equity and debt. See enterprise value and market value of invested capital (MVIC).

- Normalizing Adjustments - adjustments to a business' financial statements for nonoperating assets and liabilities, and/or for extraordinary, nonrecurring, noneconomic, or other unusual items in order to eliminate anomalies and facilitate comparisons.

- Rate of Return - an amount, expressed as a percentage of the amount of the investment, of anticipated or realized Economic Income and/or change in value of an investment.

- Cost of Capital - the expected rate of return that the market requires in order to attract funds to a particular investment considering the risk of the investment. See also Weighted Average Cost of Capital.

- Weighted Average Cost of Capital (WACC) - a measure of a business' overall cost of capital in which the expected Rate of Return on each component of capital (e.g., debt, equity) is weighted at market value based upon its relative proportion of the capital structure.
- Capital Asset Pricing Model (CAPM) - a single factor asset pricing model that measures the expected return for a security (or portfolio of securities) as the sum of a risk-free rate plus a risk premium. The risk premium is equal to the systematic risk (measured by Beta) of the security (or portfolio of securities) multiplied by the risk premium of holding the overall market portfolio. The CAPM is often modified or extended for other risk factors, such as size, country risk, and company-specific risk. See also build-up model.
- Beta – a measure of the relative risk of an individual security versus the risk of a market portfolio.
- Build-up Model - a model in which the expected return for a security (or portfolio of securities) is measured by a risk-free rate plus premiums for systematic risk (e.g., equity risk premium, size premium and industry risk premium) and unsystematic Risk (e.g., company-specific risk premium). See also Capital Asset Pricing Model.
- Terminal Value - an estimate of the value of economic income of a business beyond the discrete forecast period in the discounted economic income method. Also known as residual value or continuing value.
- Valuation Date - the specific point in time at which the conclusion of value applies. Also known as effective date, measurement date, or date of value. Contrast with Report Date.
- Report Date – the date of issuance of a Valuation report. Contrast with Valuation Date.
- [22] Standard of Value - the definition of value used in a valuation (e.g., Fair Market Value, Market Value, Fair Value, or Investment Value). The Standard of Value affects the methods, inputs, and assumptions used by the business valuation professional. (see VAB6 pgs. 29-34).

    Fair Market Value - a Standard of Value considered to represent the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, each acting at arms-length in an open and unrestricted market, when neither is under compulsion to buy or to sell and when both have reasonable knowledge of relevant facts. See also Market Value.

Market Value - a Standard of Value considered to represent the estimated amount for which an asset or liability should exchange on the Valuation Date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing, and where the parties had each acted knowledgeably, prudently, and without compulsion. See also Fair Market Value.

Fair Value - a Standard of Value for which there are different definitions, depending on the context and purpose. Fair Value is typically defined or imposed by a third party (e.g., by law, regulation, contract, or financial reporting standard-setting bodies). The most commonly used definition for financial reporting purposes is under IFRS and US GAAP, which define Fair Value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Investment Value - a Standard of Value considered to represent the value of an asset or business to a particular owner or prospective owner for individual investment or operational objectives. Also known as value to the owner.

Intrinsic Value is the value that an investor considers, on the basis of an evaluation or available facts, to be the "true" or "real" value that will become the market value when other investors reach the same conclusion. When the term applies to options, it is the difference between the exercise price or strike price of an option and the market value of the underlying security".

Valuing Equity or Invested Capital

When valuing a business either an equity value approach or invested capital approach may be used. (see VAB6 pg. 24)

- [23] Equity Value - the value of a business to its equity holders. Equity value is generally calculated as the market value of invested capital less the market value of any debt and debt equivalents, hybrid securities, and other non-equity claims.
- Market Value of Invested Capital - the sum, at market value, of a business' equity, debt and debt equivalents, hybrid securities, and non-equity claims.

Equals: Equity value	$250,000
Plus: Interest-bearing debt	$150,000
Invested capital value[2]	$400,000

[2] *Note: For purposes of this course, invested capital is defined as stockholders' equity, plus short and long term interest bearing debt.*

Cash Basis or Accrual Basis of Accounting

[24] Many small businesses will prepare financial statements on either a cash or accrual basis. The difference between these two accounting procedures is simply the difference in timing. For example, on the income statement it's the recording of revenues and expenses.

<u>Cash</u> basis accounting

- Income recognized when actually received
- Expenses recognized when actually paid
- Accounts receivable/accounts payable, prepaid expenses and sometimes inventory along with other items, are normally not shown on the balance sheet
- Often used for its tax advantages: defers income, accelerates expense
- Does not reflect when property rights were transferred

<u>Accrual</u> basis accounting

- Revenue recognized when it becomes receivable
- Expenses recognized when they become payable, matched to the recognition of the related income

For most businesses, accrual basis accounting provides a more realistic picture of financial operations and has better information with which to manage the business.

Valuation Principles[3]

[25] There are three commonly referred to valuation principles:

- The "economic principle of substitution" is based upon the fact that no prudent individual would pay more for an asset than the price required to obtain an equal asset of comparable utility.
- The "principle of future benefits" is the fundamental business valuation principle that states – economic value reflects anticipated future benefits.
- The "principle of alternatives" states that in any contemplated transaction, each party has alternatives to consummating the transaction.

[3] Source: Basic Business Appraisal by Ray Miles.

Indications of Value versus Opinions of Value

[26] Application of the various valuation methods will produce an indication of value only. This is clearly different from the appraiser's opinion of value. The appraiser must balance a variety of factors from the various indications of value to form his or her final opinion of value. Ultimately, the final opinion of value is the appraiser's professional unbiased judgment.

The appraiser's role is to mirror the market – at what point would potential buyers and sellers commence a deal? The business valuation profession is more of an art form than it is a science. At the end of the day, you must be able to support your logic incorporated during the valuation process and report it in a manner that others are able to replicate.

Identification of Different Profitability Measurements

[27] Commonly used Profitability Measurements are:

- Seller's Discretionary Earnings (SDE) is commonly defined as: Normalized operating earnings before: (i) noncash charges, (ii) nonrecurring and nonoperating income and expenses, (iii) interest expense, (iv) income taxes and (v) one owner's total compensation (i.e., normalized EBITDA plus one owner's compensation).
- EBITDA is commonly defined as: Normalized operating earnings before: (i) interest, (ii) income taxes, (iii) depreciation and amortization (non-cash charges).
- EBIT is commonly defined as: Normalized operating earnings before: (i) interest and (ii) income taxes.
- EBT is commonly defined as: Normalized operating earnings before: (i) income taxes (i.e., pre-tax earnings).
- Net Income is commonly defined as: Normalized operating earnings after income taxes are deducted.
- Net Cash Flow is commonly defined as either:

    Invested capital net cash flows are those cash flows available to pay out to equity holders (in the form of dividends) and debt holders (in the form of principal and interest) after funding operations of the business enterprise and making necessary capital investments.[4]

	Net Cash Flow to Invested Capital
	Net Income (after Taxes)
+	Non-cash charges (depreciation, amortization)
-	Capital expenditures
"+/-"	Changes in net working capital
+	Interest expense (1 minus the tax rate)
=	Net cash flow (NCF) to invested capital

[4] Source: International Valuation Glossary of Business Valuation Terms.

Equity net cash flows are those cash flows available to pay out to equity holders (in the form of dividends) after funding operations of the business enterprise, making necessary capital investments, and increasing or decreasing debt financing.[5]

	Net Cash Flow to Equity
	Net Income (after Taxes)
+	Non-cash charges (depreciation, amortization)
-	Capital expenditures
"+/-"	Changes in net working capital
"+/-"	Net changes in long-term debt
=	Net cash flow (NCF) to equity

Practice Tip: Think of NCF to equity as the sum of funds that could be removed from the business without affecting its daily operations. NCF accounts for the deduction of capital expenditures, net changing in working capital and/or changes in interest bearing debt.

Exercise

[28] Indicate whether the financial measurement is a return to “equity” or “invested Capital,” by placing an “X” in the appropriate line.

Financial Measurements	Equity	Invested Capital
Sales	______	______
Gross Profit	______	______
Seller's Discretionary Earnings	______	______
EBITDA	______	______
EBIT	______	______
Pre-Tax Earnings (including interest deduction)	______	______
Net Income (including interest deduction)	______	______
Net Cash Flow	______	______

[29] Solution

[5] Source: Ibid.

Lesson 4: The Valuation Process

Steps in the valuation process

- [31] Understand what the appraisal is going to be used for.
- Are you valuing stock or an interest?
- How many shares or what percentage?
- What is the "valuation date" or the effective "as of date" of the appraisal? At what point in time will the opinion of value apply? The effective date of the appraisal establishes the context for the opinion of value.
- [32] Are there any time restraints?
- Do you have the required skills to perform the valuation?
- Prepare an engagement letter or contract.
- Gather vital information (i.e., financial, industry, economic, etc.).
- [33] Analyze the data and make any necessary adjustments.
- Select the appropriate approaches, methods and reconcile into an opinion of value.
- Write and deliver the valuation report in accordance with ASA and USPAP standards.
- The date of the report indicates whether the effective date of the appraisal was prospective, current or retrospective.

Request for Documents

[34] The data gathering process is probably the most important step. What you are trying to accomplish as an appraiser is to clearly understand the Subject's business model. (see VAB6 pgs. 66-81)

- How do they operate internally and externally?
- What type of systems do they have in place and how efficiently are they being used?
- Can people be replaced within the system with productivity losses kept to a minimum?

Yes, financial numbers are very important; this is ultimately what they have hired you for, to analyze and compute a single figure or a range of values.

The following are examples of requesting information from the client.

Financial Statements: Copies of the full set of financial statements for the five most recently completed accounting years, if available. Also, if available, the financial statements for any interim period since the end of the most recent full year, together with a copy of the financial statements for the same interim period portion of the prior year. Income tax returns: For the same years as above (if available).

Accumulated Depreciation: this schedule is needed as of the most recent balance sheet. A schedule of the accumulated depreciation broken down by category of depreciating assets with the aggregate equal to the total of the accumulated depreciation on the balance sheet.

Related Party Activities: A copy of any loans, leases or other agreements between the business and any of the owners/shareholder(s) or entities in which any shareholder(s) are principals.

Other Appraisals: Copies of any other appraisals of the business or its assets.

Operating / Ownership Agreements: Copies of any operating agreements; including, but not limited to: (i) franchise/licensing agreements; (ii) leases on buildings, fixtures, equipment or vehicles; (iii) other loan agreements that contain any special conditions limiting the rights of the owners/shareholders to operate the business as they wish; (iv) agreements with customers or suppliers obligating either to purchase or sell a certain quantity of goods or services; (v) an overview of any profit sharing/pension type plans, including who is covered, whether the amount paid is voluntary or obligatory, and if unfunded pension amounts are due, management's plan for paying same; (vi) any employment contracts with employees.

Aging Reports on Receivables and Payables: As with the above schedules, this should be as of the appraisal date or the closest date prior to the appraisal date.

Nonoperating Assets: A schedule of nonoperating assets. These are not assets, which are in disrepair or malfunction but assets owned by the business, which are not necessary to its operation. Assets that could be removed without disadvantaging the business, as they do not contribute to the generation of sales or profits.

Conflicts: An explanation, including copies where appropriate, of any current or pending conflicts; including but not limited to, litigation, licensure, regulatory compliance (OSHA, EPA, IRS, etc.) and contractual breach or interference. If litigation, have the client's attorney prepare an assessment of the case for you to include.

Intellectual Assets: Explanation of any: (i) intangible assets owned by the business; and (ii) any intellectual assets, including but not limited to, patents, copyrights, etc. For any intellectual assets please include copies of the patent/copyright registration, cost for you to create and a schedule of any income, expenses and profits directly attributable to the item.

Questionnaire: Business review questionnaire completed as of the appraisal date (see Appendices A).

Assembling Business Valuation Information

[35] Generally, appraisers will gather information from the Client pertaining to the Subject's business. However, other important consideration must be made regarding the impact of the economy and industry on the business being appraised. (see VAB6 Chapters 5 & 6)

Does the economic climate have a positive or negative effect on the business being valued? Every valuation assignment should include a discussion relating economic conditions and how these conditions are tied to the business' operations.

Economic indicators such as: gross domestic product (GDP); consumer price index (CPI), producers price index (PPI) both measure inflation; employment figures; consumer spending; and interest rates on the national level are very important to every business. On a regional level: population trends, employment rates, construction and retail activities (i.e., building permits, sales tax generation) are typically important.

Most commonly used *national* sources are:

- Business Valuation Resources
- First Research
- Federal Reserve Bulletin
- Economic Report of the President
- Survey of Current Economic Business
- STAT-USA
- EconData.Net
- U.S. Census Bureau
- Wall Street Journal
- Internet
- Economy.com
- U.S. Bureau of Economic Analysis (BEA)
- U.S. Bureau of Labor Statistics (BLS)
- Many Financial Publications found on Newsstands

Some *regional* sources are:

- State Department of Economic
- Chamber of Commerce
- U.S. Bureau of Labor Statistics (State & County)
- Local Banks
- Public Utilities
- State Department of Commerce
- Local Libraries
- U.S. Census Bureau
- Local & State Newspapers

Do not, I repeat, DO NOT just cut and paste the economic information without first completely understanding how it will affect the business being valued.

In many cases you will *not* have a complete understanding of the business, until you research the industry. Is the industry in its mature stage? Is the industry growing or stagnating? What is the outlook for growth?

A discussion about an industry or industries in which the business competes is very important. Sources for industry information are:

- Trade Associations (State of the Industry Reports)
- First Research (Dunn & Bradstreet)
- Vertical IQ
- IBISWorld
- Standard & Poor's Industry Surveys
- U.S. Industrial & Trade Outlook
- Securities and Exchange Commission (i.e., public companies K-1s)
- Yahoo Finance

The U.S. Government designed a standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. To find the proper industry in which the business competes, the U.S. Government designed the Standard Industrial Classification (SIC) manual in 1937.

Businesses are assigned a four-digit primary code and are arranged by industry type. The SIC system is divided into: (i) division; (ii) major group; (iii) industrial group; and (iv) sub-group(s).

Example: Division D: Manufacturing

Major Group	17: Construction Special Trade Contractors
Industrial Group	174: Masonry, Stone Setting
Sub Group:	1741 Masonry, Stone Setting and Other Work
	1742 Plastering, Drywall and Insulation Work
	1743 Terrazzo, Tile, Marble and Other Work

On January 1, 2003, a change was made to the SIC system to the North American Industry Classification System (NAICS). NAICS uses a six-digit coding system to classify all economic activity.

Example: Business Description Code

Agriculture	1
Forestry, Fishing and Hunting	11
Crop Production	111
Grain Farming	1111
Soybean Farming	11111
Oilseed Farming	111111

According to the Office of Management and Budget, "the North American Industry Classification System is to ensure the relevance, accuracy, and timeliness of each classification, NAICS codes are reviewed every five years to determine what, if any, changes are required."

Website links: http://www.osha.gov/pls/imis/sicsearch.html

http://www.osha.gov/oshstats/naics-manual.html

<u>DO NOT</u> automatically assume code numbers are correct on the Federal Tax Return to the type of business you are valuing. A business may have started with an assigned code and changed operations, while the code number was never updated.

Industry financial information is obtained to compare the Company against others in the same or similar industry. The general idea and purpose of using industry data is to evaluate the company's strengths and weaknesses as compared to those of competing businesses in that industry.

Some sources for SIC or NAICS financial benchmark ratio information:

- Risk Management Associates (RMA)
- Integra Information
- IRS Corporate Financial Ratios

- BizMiner
- Reasonable Compensation Reports
- ProfitCents
- Trade Associations
- Salary.com
- Economic Research Institute (ERI)

The Global Industry Classification Standard (GICS) is structured consisting of 11 sectors, 24 industry groups, 69 industries and 158 sub-industries into which Standard & Poor has categorized all major public companies. Developed in 1999.

[36] [37] The following is an example of the income statement trend analysis and a benchmark comparison to the industry.

Industry Comparison Analysis - Historical Income Statement

Income Statement	20X1	20X2	20X3	20X4	20X5	Industry
Gross Sales	100.0	100.0	100.0	100.0	100.0	100.0
Cost of Goods	(29.8)	(29.6)	(27.0)	(26.6)	(25.7)	(26.7)
Gross Margin	70.2	70.4	73.0	73.4	74.3	73.3
Selected Line Items						
Owner Compensation	6.4	5.7	4.8	9.3	9.3	3.8
Salary-Wages	2.9	2.7	3.2	3.2	3.4	4.1
Salary-Wage Taxes	1.2	1.1	1.0	1.2	1.4	1.6
Advertising	10.1	10.6	8.9	7.9	6.5	2.1
Rent	6.6	6.2	5.6	4.8	5.0	5.9
Depreciation & Amortization	0.8	1.1	0.4	-	1.6	2.0
Operating Expenses	47.8	49.9	41.3	42.2	44.6	52.4
EBITDA	15.8	14.5	22.1	11.2	13.5	11.9

Types of Balance Sheet Accounting Procedures

Earlier cash and accrual accounting were discussed. In the real world, there is a third; this is often referred to as “modified cash basis accounting.” This type of accounting is something in between the cash and accrual basis accounting.

[38] It is important to make a distinction between a pure “cash accounting” and a “modified cash accounting.” Depending on the type of business and their style of accounting, a modified cash accounting may fairly represent accrual basis accounting.

All three are at their “booked value.” Meaning, booked value is based on historical costs recorded by the business.

[39] [40] As shown in the following table, there are significant differences between recording of cash and accrual accounting. These distortions may result in an under valuation (cash basis) or an

over valuation (accrual basis), if historical amounts are not a true reflection of current economic market values.

Types of Accounting Methods			
Balance Sheet Item	*Cash*	*Modified*	*Accrual*
Cash	-	105,271	105,271
Receivables	-	25,000	25,000
Inventory	11,367	-	11,367
Total Current Assets	11,367	130,271	141,638
Total FF&E Assets	237,688	237,688	237,688
Total Accum Depreciation	(220,665)	(220,665)	(220,665)
Net FF&E Assets	17,023	17,023	17,023
Other	145,657	145,657	145,657
Total Fixed Assets	174,047	292,951	304,318
Short-Term Debt	-	-	15,000
Payables	5,715	5,715	5,715
Total Current Liabilities	5,715	5,715	20,715
Long-Term Debt	40,000	40,000	40,000
Deferred Taxes			12,500
Other	-	1,250	-
Total Long-Term Liabilities	40,000	41,250	52,500
Total Liabilities	45,715	46,965	73,215
Total Equity/Capital (Net Worth)	128,332	245,986	231,103
Liabilities & Shareholder's Equity	174,047	292,951	304,318

Industry Benchmark Ratio Analysis

Comparing a business' financial performance against itself or against an industry peer group is an excellent way to help recognize any unusual events. The internal trend and industry comparative analysis are essential in identifying the value drivers and risk factors.

Ratios are simply the conversion of absolute numbers into percentages. The industry comparison data can be compared on a yearly basis or a single year basis. Comments can be included in the exhibit or explained in greater detail in the written report.

[41] The following example utilizes information from the income statement and balance sheet (see VAB6 Chapter 8 pgs. 133-151).

One point of caution, the industry data source selected should match how that source calculated the ratio. Different sources calculate ratios slightly different.

- Quick Ratio – (cash = marketable securities = A/R / current liabilities): Also known as the acid test ratio and indicates typical liquidity. Measures a company's ability to meet its short-term obligations using its most liquid assets.

- Current Ratio – (current assets / current liabilities): Measures company's ability to meet financial obligations. The ratio is expressed as the number of times current assets exceed current liabilities. A high ratio indicates that a company can pay its creditors. A number less than one indicates potential cash flow problems.

- Days Accounts Receivables – (average net accounts * 365 / sales): Average number of days it takes a company to receive payments on accounts receivable. If it is a high number there is a problem with collections while an extremely low number indicates that a company's credit policies may be too strict thus minimizing its chances for additional sales and profit.

- Days Accounts Payable – (average accounts payable * 365 / cost of sales): Average number of days it takes a company to pay its funds. Indicates short-term creditworthiness of a company or industry and how much a company or industry depends upon trade credit for short-term financing. A high number indicates that a lot of trade credit is being used. For companies that have a good management, days payable will typically average between 40 and 50 days.

Internal Ratio Analysis and Industry Benchmarking

Liquidity/Solvency Measurements	20X1	20X2	20X3	20X4	20X5	Industry	*Comments*
Quick Ratio	1.7	1.7	1.7	1.3	1.2	1.7	*Neutral*
Current Ratio	2.4	2.4	2.4	1.9	1.7	1.7	*Neutral*
Days Accounts Receivable	51	58	50	54	53	12	*Negative*
Days Accounts Payable	47	48	47	53	44	45	*Neutral*

Quantitative Z-Score Risk Analysis

A quantitative risk analysis can be performed using Altman's Z-Score formula for private-general businesses. Altman developed this version to predict the likelihood of a privately owned general (manufacturing Model "A" five ratios or non-manufacturing Model "B" four ratios) business of entering bankruptcy.

The "Model A" formula is:

Working Capital/Total Assets x 0.717
Retained Earnings/Total Assets x 0.847
Operating (EBIT)/Total Assets x 3.10
Net Worth/Total Liabilities x 0.420
Sales/Total Assets x 0.998

Privately Held Company Z-Score Model "A" (Manufacturing)

Account Description	20X5	20X6	20X7	20X8	20X9
Months of Operations in Year	*12*	*12*	*12*	*12*	*12*
Gross Sales	5,604,510	5,491,867	6,405,217	7,571,754	10,357,446
Operating Income EBIT	26,376	35,773	793,731	909,756	644,491
Working Capital	927,207	881,611	967,168	853,961	954,011
Total Assets	1,888,247	1,734,754	1,852,552	1,902,438	2,403,565
Total Liabilities	760,374	667,820	729,507	923,123	1,347,828
Retained Earnings	1,115,441	1,055,040	1,111,151	967,427	1,043,843
Net Worth (Equity)	1,127,873	1,066,934	1,123,045	979,315	1,055,737
Total Z-Score	4.5	4.8	6.3	6.7	6.1

The "Model B" formula is:

Working Capital/Total Assets x 6.56
Retained Earnings/Total Assets x 3.26
Operating (EBIT)/Total Assets x 6.72
Net Worth/Total Liabilities x 1.05

Privately Held Company Z-Score Model "B" (Non-Manufacturing)

Account Description	20X5	20X6	20X7	20X8	20X9
Months of Operations in Year	*12*	*12*	*12*	*12*	*12*
Gross Sales	5,604,510	5,491,867	6,405,217	7,571,754	10,357,446
Operating Income EBIT	26,376	35,773	793,731	909,756	644,491
Working Capital	927,207	881,611	967,168	853,961	954,011
Total Assets	1,888,247	1,734,754	1,852,552	1,902,438	2,403,565
Total Liabilities	760,374	667,820	729,507	923,123	1,347,828
Retained Earnings	1,115,441	1,055,040	1,111,151	967,427	1,043,843
Net Worth (Equity)	1,127,873	1,066,934	1,123,045	979,315	1,055,737
Total Z-Score	5.5	5.8	8.5	7.8	5.7

Altman's four and five variables (ratios) for private general businesses with a Z-Score above 2.90 for Model "A" and 2.60 for Model "B" are considered financially healthy, a Z-Score of 1.10 or below is an indicator the business is likely to become insolvent. Likewise, a score between 2.60 and 1.10 demonstrates potential financial trouble and measures should be immediately taken to correct the company's financial condition.

Note: There is one drawback in using a ratio-based formula for risk analysis, these ratios are based on historical accounting figures; and results can be meaningless in a fast-changing economy and industry.

Compound Annual Growth Rates

Compound annual growth rates (CAGR) can be calculated for a series of numbers. CAGR formula uses the first and last figures in a series of numbers and ignores anything in between.

Compound Annual Growth Rate formula is:

$$\text{CAGR} = \left(\frac{\text{Ending Value}}{\text{Beginning Value}}\right)^{\left(\frac{1}{\text{\# of years}}\right)} - 1$$

The following table presents an example of CAGR using sales and profitability in the calculation.

	Sales Growth Rate	*10.0%*	*8.0%*	*8.0%*	*6.0%*	CAGR
Gross Sales	11,911,063	13,102,169	14,150,343	15,282,370	16,199,312	8.0%
Pre-Tax Earnings	832,953	916,248	989,548	1,068,712	928,541	2.8%
Pre-Tax Earnings Growth Rate		*10.0%*	*8.0%*	*8.0%*	*-13.1%*	

Entity Structures Defined

- [42] C Corporation: A corporation acting as a separate tax-paying entity. The profits of a C corporation are taxed to the corporation when earned and then again taxed to the shareholders as distributions (i.e., dividends).

- S Corporation: A corporation with restrictions on the number of equity shareholders. S corporations pass taxable income to their shareholder for federal income tax purposes and are often referred to as pass through entities.

- Partnership: An entity comprises of at least two partners, effectively creating a general partnership or limited partnership arrangement. A partnership is much like the S corporation as profits are taxable to its partners.

- Sole Proprietorship: In this type of entity, the sole proprietor pays the taxes on profits. A sole proprietor reports business income on their personal income tax return.

- Limited Liability Company (LLC): An LLC is structured where the members have limited legal liability and generally participate in managing the organization. A single member LLC is taxed as a sole proprietorship or corporation. An LLC that has multiple members pay income taxes as either a partnership or as a corporation.

  (see VAB6 pgs. 22-23 for more details)

Lesson 5: Introduction to the Income Approach

[44] The income approach has its theoretical basis in the Principal of Future Benefits, which states,

> "Economic value reflects anticipated future benefits." (see VAB6 pg. 157)
>
> No one buys a business or property simply because of what it has accomplished in the past or even what it consists of at present. Although these may be important considerations in determining what the business or other property is likely to do in the future, it is the anticipated future performance of a business that gives it economic value.

[45] Two conditions are required in order to use the income approach. If these conditions are not present, the appraiser should consider using other valuation methods.

- Future economic income (benefits) should be able to be forecasted with a reasonable degree of probability.
- There should be a reasonable likelihood that future operations will continue as forecasted.

[46] There are two commonly used methods under the income approach.

- Capitalization of earnings method (single period) – (see VAB6 Chapter 10 pgs. 181-206)
- Discounted future earnings method (multiple periods) – (see VAB6 Chapter 9 pgs. 155-180)

Overview of Discount and Capitalization Rates

[47] Discount rates and capitalization rates should not be confused.

- Discount rates are used to convert anticipated future earnings streams (number of years) into present value.
- A capitalization rate is a divisor used to convert an anticipated earnings stream (sustainably earnings) into value.

[48] Example of the difference between rates:

Discount Rate	25.0%
Minus: Long term growth rate	-5.0%
Equals:Capitalization Rate	20.0%

Long-Term Sustainable Growth Rate

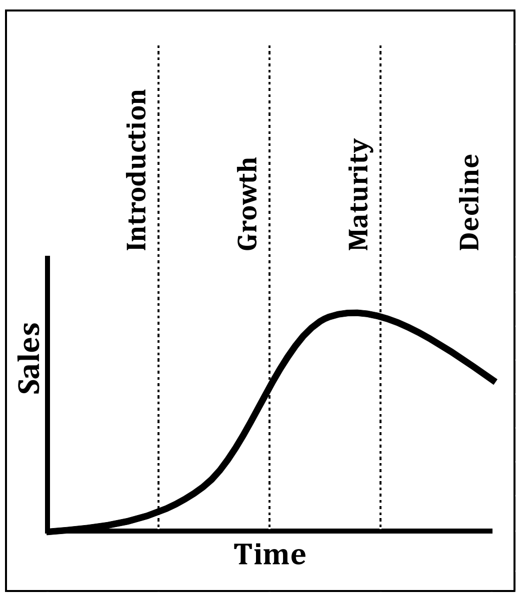
[49] The development of sustainable growth rates for earnings is slightly different than estimating growth rates for sales. When the application of a long-term growth rate for earnings is used in estimating value, a sustainable earnings growth rate is selected. (see VAB6 Chapter 12)

It is difficult to derive a long-term growth rate, as there are no sources that can utilized. Therefore, in estimating an appropriate long-term growth rate, consideration must be given to several factors including; company's historical performance and outlook, economy, industry, competition, demographic and population growth.

[50] The range generally observed for the long-term sustainable growth rates are between 2.0% to 6.0%. The long-term growth rate could be zero, if the outlook for the business is stagnate. High growth rates for short periods should not be used as a proxy for long-term sustainable growth rates.

> Example: The appraiser develops a long-term sustainable growth in earning power for the business based upon an analysis of local, regional, and national economic conditions, as well as, industry conditions. A long-term sustainable growth rate assumption is not necessarily a company's expected growth rate in earnings for next year, but rather what can be expected for the long term based upon a fundamental understanding of the business and the industry it competes within. The long-term growth rate for earnings is an average of future growth rates in cash flows. Some growth years may be higher or lower, but the expectation is that future long-term growth will represent the average growth rate over time.

[51] Many times, appraisers do not consider the life cycle of the business' products or services offered. The table below presents a typical life cycle curve.



[52] It is also essential to understand that the determination of a sustainable growth rate depends upon the base of assumed ongoing earnings for: (i) net cash flows; (ii) net income; (iii) etc.

Capitalization of Earnings Method

[53] The capitalization of earnings method is used to convert some normalized level of ongoing benefit stream (earnings) into a present value based on a single period.

[54] This method is most appropriate when the following criteria are present in the Company:

- Stable level of economic earnings stream.
- Forecasted growth in earnings are at a constant rate.
- The aforementioned is into perpetuity (a very long time).

[55] The following steps are required to employ this method:

- Consider any adjustments to the financial statements, if appropriate.
- Determine whether to value equity or invested capital.
- Select an economic income stream to capitalize.
- Develop an appropriate rate of return (capitalization rate).
- Calculate the value.

[56] The formula for the capitalization of earnings method is:

$$\text{Value} = \frac{\text{Benefit Stream}}{\text{Capitalization Rate}}$$

The capitalization rate is used as a divisor or the denominator, while the benefit stream is used as the numerator in the aforementioned equation.

Capitalization of Earnings Method	
Selected Earnings Stream	$ 10,000
Capitalization Rate	0.20
Indication of Value	$ 50,000

Note: The capitalization rate is generally used as a divisor (but can be used as a multiplier (100 / 25% = 4 multiple).

Discounted Future Earnings Method

[57] The discounted future earnings method is sometimes referred to as "discounted cash flow method (DCF) or multiple-period discounting method."

This method is more appropriate if there is either an unstable level of earnings or cash flow and the earnings growth rate is expected to change significantly (i.e., earnings are up one year but are expected to decrease the following year, etc.).

[58] This method requires the following steps:

- Consider any adjustments to the financial statements, if appropriate.
- Determine whether to value equity or invested capital.
- Develop a reasonable forecast for the selected earnings stream(s).
- Develop a discount rate appropriate to the selected economic income stream.
- Estimate the long-term growth rate for earnings (not sales).
- Develop a present value factor for each year of the forecast.
- Calculate the incremental values for each year and the terminal value.
- Determine whether to utilize the end-of-year or mid-year discounting convention.

[59] Presented below is the aforementioned in tabular form.

Discounted Cash Flow Method

Selected Year	Projected Net Cash Flow	Discount Rate	Present Value Factor	Capitalization Rate	Present Value
F-1	$ 155,860	0.189	0.841		131,085
F-2	$ 152,296	0.189	0.707		107,727
F-3	$ 217,710	0.189	0.595		129,519
L-T Rate	1.03				
Terminal Year	$ 224,241	0.189	0.595	0.159	839,021
				Indication of Equity Value	1,207,352

[60] Common errors found when using this method:

- Always using five-years as the appropriate time frame.
- Unsupported assumptions about future events that are considerably different from historical performance.
- Not using the L-T rate for earnings to calculate the terminal period earnings stream.
- Using next periods net present value factor in the terminal period.
- [61] Using DCF method when there is constant growth in earnings (i.e., 5% annually).

Discount Future Earnings (cash flow) Method

	F-1	F-2	F-3	F-4	F-5	Perpetuity
Earnings Stream *(5% annual growth)*	10,000	10,500	11,025	11,576	12,155	12,763
Present Value Factor *(25% discount rate)*	0.8000	0.6400	0.5120	0.4096	0.3277	0.3277
Present Value	8,000	6,720	5,645	4,742	3,983	4,182
Capitalization Rate						0.20
						20,912
Indication of Value	50,002					

[62] In order for an appraiser to effectively use the capitalization of earnings and discounted future earnings methods it is necessary to understand the concepts of:

- Time value of money
- Discount rates
- Capitalization rates
- Equity capital
- Invested capital

Time Value of Money Concept

[63] One of the most important concepts in business valuation is the relationship between $1 today and $1 in the future. This relationship is called the time value of money concept.

The time value of money is based on the concept that a dollar available at the present time is worth more than the same amount in the future, due to its potential earnings capacity. Today's dollar is worth more because it can be invested and earn interest.

A key concept of the time value of money is that you can determine the future value to which a single sum of money or a series of future payments will grow to at some future date (future value or "FV") and conversely, a single sum of money or a series of equal, evenly spaced payments or receipts in the future can be converted to an equivalent value today (present value or "PV").

[64] A present value table can be built using the required rate of return (discount rate) as shown in the following table. This formula assumes cash flows occur at the end of each year (periods).

Periods	Rate	Future Value	PV Factor	Math
1	0.23	$ 1.00	0.813	1.000/1.23
2	0.23	$ 1.00	0.661	0.813/1.23
3	0.23	$ 1.00	0.537	0.661/1.23
4	0.23	$ 1.00	0.437	0.537/1.23
5	0.23	$ 1.00	0.355	0.437/1.23

Exercise:

[65] What is the present value of $1.00 to be received four years from now, assuming a discount rate of 25%?

A. 0.420

B. 0.410

C. 0.395

D. 0.400

[66] Solution

Equity and Invested Capital Earnings Streams

[67] The financial return streams selected will either be "equity" or "invested capital." Illustrated below are the conceptual differences between equity and invested capital earnings streams.

Financial Measurements		*Equity*	*Invested Capital*
	Sales	33,000	33,000
Less	Cost of Goods	(14,000)	(14,000)
Equals	Gross Profit	19,000	19,000
Less	Operating Expenses	(9,000)	(9,000)
Equals	EBITDA	10,000	10,000
Less	Non-Cash Charges	(2,500)	(2,500)
Equals	EBIT	7,500	7,500
Less	Interest Expenses	(1,200)	-
Equals	Pre-Tax Earnings	6,300	7,500
Less	Income Taxes (35%)	(2,205)	(2,625)
Equals	Net Income	4,095	4,875

[68] The economic income streams most frequently used within the income approach by business appraisers are:

- Net cash flow (equity or invested capital)
- Net income
- Pre-tax earnings

[69] For very small types of businesses where the owner is often the only employee, seller's discretionary earnings is often used. This is mainly due to owning the businesses as a life style choice. As the Subject company size increases, seller's discretionary earnings tend to become meaningless.[6] As the company size increases, appraisers will generally select a better financial measurement (i.e., EBITDA, EBIT, net income, net cash flow).

Net cash flow is the preferred income stream because it is the best proxy of the financial return to an investor in the stock of the Company. In addition, net cash flow is conceptually preferable because most of the capital market data used to develop discount rates are related to net cash flow.

[70] Net cash flow can be determined on either an "equity" capital basis or an "invested capital" basis.

- Invested capital net cash flows are those cash flows available to pay out to equity holders (in the form of dividends) and debt holders (in the form of principal and interest) after funding operations of the business enterprise and making necessary capital investments.[7]

[6] Source: The Market Approach to Valuing Businesses, Wiley & Sons, 2005, page 138.
[7] Source: International Glossary of Business Valuation Terms.

- Equity net cash flows are those cash flows available to pay out to equity holders (in the form of dividends) after funding operations of the business enterprise, making necessary capital investments, and increasing or decreasing debt financing."

The components of net cash flow from the two examples are:

- Normalized net income after the deduction of the Subject company's blended tax rate.

- Non-cash charges are those expenses related to depreciation and amortization.

- Capital expenditures is the cost of acquiring fixed assets, adding to fixed assets (upgrading or adding options), improving a fixed asset or extending a fixed asset's useful life. Capital expenditures will generally increase to support sales growth. This is mainly due to capital expenditures are in current dollars and depreciation is based on historical dollars.

  It is important to note, rarely do businesses incur a consistent level of capital expenditures each year. It is more common for a business to incur large capital expenditures for a brief period as it builds, acquires additional manufacturing or warehouse capacity, improves information technology systems, acquires other businesses or updates its current facilities. After a period of overinvestment, the business may have excess capacity that will take years to utilize. This often leads to a subsequent period of underinvestment while the business grows, in part, through the use of its excess capacity. For example, most businesses are impacted by technological advances. These advances, while costly at times, may lead to lower capital expenditures in the future.

- Net changes in working capital. Working capital is the difference between current assets and current liabilities. As sales increase, additional working capital is consumed reducing cash flows.

Lesson 6: Components of the Financial Statement

Anatomy of the Income Statement (sales, expenses, profits)

Profit and Loss Statement	TOTAL
44600 · Sales	355,013
Total Income	355,013
Cost of Goods Sold	
51300 · Fuel	23,737
54000 · Truck Maintenance Costs	36,184
54100 · Truck Rental	0
Total COGS	59,921
Gross Profit	295,093
Operating Expenses	
61000 · Business Licenses and Permits	150
61100 · Job Related Expenses	3,265
61500 · Business Service Package	0
61000 · Payroll Wages	212,750
62100 · Payroll Taxes	18,787
62200 · Payroll - Workman's Como	14,965
62500 · Safety	108
63300 · Insurance Expense	6,397
63400 · Interest Expense	0
Total Expense	256,421
Net Ordinary Income	38,672

Gross (net) sales: Usually includes amounts reported after taking into consideration returned goods and allowances for price reductions or discounts.

Cost of Goods Sold: All costs a business incurs to purchase and convert raw materials into products the business sells. Product costs may have three components: (i) direct materials; (ii) direct labor; and (iii) manufacturing overhead.

Gross Profit: Is defined as the excess of sales over cost of goods sold.

Selling, General & Administrative Expenses: Includes many line items - detailed information is generally company specific.

Interest Income (Expenses): Generally, is recorded as interest paid on debt. Interest charges on debt can be short-term debt (under one year) or long-term debt (over one year) obligation.

Income Tax Expense: The business' "tax rate" is based on the level and nature of its earnings using state and IRS tax tables.

Net Income: The sum of all income minus costs (i.e., the "bottom line").

[72] The following table presents an example of "spreading" the financials. By reviewing the absolute numbers, one may find it difficult to fully understand what is happening in the business over time. By converting the absolute numbers into terms of percentages, the information becomes more meaningful.

	For Periods Ending December 31					Common-size as a % of Gross Sales				
Income Statement	20X1	20X2	20X3	20X4	20X5	20X1	20X2	20X3	20X4	20X5
Gross Sales	1,126,664	1,146,423	1,234,789	1,332,132	1,430,363	100.0	100.0	100.0	100.0	100.0
Cost of Goods	(316,197)	(337,983)	(352,085)	(432,727)	(446,261)	(28.1)	(29.5)	(28.5)	(32.5)	(31.2)
Gross Profit	810,467	808,440	882,704	899,405	984,102	71.9	70.5	71.5	67.5	68.8
Operating Expenses	(664,043)	(643,928)	(668,193)	(742,685)	(737,346)	(58.9)	(56.2)	(54.1)	(55.8)	(51.5)
Operating Income EBIT	146,424	164,512	214,511	156,720	246,756	13.0	14.4	17.4	11.8	17.3
Interest	(3,906)	(4,305)	(1,397)	(1,695)	(2,474)	(0.3)	(0.4)	(0.1)	(0.1)	(0.2)
Other Income (Expenses)	-	-	-	-	-	-	-	-	-	-
Pre-Tax Earnings	142,518	160,207	213,114	155,025	244,282	12.6	14.0	17.3	11.6	17.1
Selected Line Items										
Rent	47,078	51,951	48,836	48,545	61,037	4.2	4.5	4.0	3.6	4.3
General & Administrative	303,746	282,563	310,334	345,658	325,832	27.0	24.6	25.1	25.9	22.8
Depreciation Expense	15,236	16,395	17,714	46,318	26,022	1.4	1.4	1.4	3.5	1.8
Misc Operating Expenses	98,756	96,521	92,478	99,357	95,235	8.8	8.4	7.5	7.5	6.7
Officer's Compensation	199,227	196,498	198,831	202,807	229,220	17.7	17.1	16.1	15.2	16.0
Total Operating Expenses	664,043	643,928	668,193	742,685	737,346	58.9	56.2	54.1	55.8	51.5

To calculate a percentage, simply take one measurement and divide that figure by another measurement (i.e., cost of goods divided by sales). This style makes it easier to review and analyze the data by looking at key variables and changes over time.

Anatomy of the Balance Sheet (Assets, Liabilities, Equity)

Balance Sheet	
Assets	
Cash	340,209
Receivables	786,737
Inventory	405,031
Other	72,104
Total Current Assets	1,604,081
Total FF&E Assets	1,000,000
Total Accum Depreciation	(761,591)
Net FF&E Assets	238,409
Intangible Assets (net)	-
Other	45,757
Total Assets	1,888,247
Liabilities	
Short-Term Debt	-
Payables	482,568
Other	194,306
Total Current Liabilities	676,874
Long-Term Debt	10,000
Loans from Shareholders	50,000
Other	23,500
Total Long-Term Liabilities	83,500
Total Liabilities	760,374
Stockholder's Equity	
Total Equity/Capital (Net Worth)	1,127,873
Liabilities & Shareholder's Equity	1,888,247

Current Assets

Cash and Cash Equivalents: Money deposited in the bank, cash on hand and/or highly liquid securities.

Accounts Receivables: Amounts due from clients/customers, but not yet collected.

Inventory: Consists of quantities of physical products or supplies, which may fall into one of the following categories: (i) raw materials; (ii) work-in-progress; (iii) finished goods (completed items ready for intended use, but have not left the property). There is a secondary issue with the recording of inventory, that is, FIFO and LIFO accounting techniques. FIFO is defined as first-in, first-out, meaning the oldest inventory items are recorded as sold first. LIFO refers to last-in, first-out, meaning the most recent inventory item costs are recorded. Again, FIFO and LIFO are just inventory accounting techniques.

Other and Prepaid Expenses: Payments made for which the business has not yet received the benefits, but will receive in the coming business year.

Total Current Assets: In general, is the sum of items that can be turned into cash within a business year. Typically, current assets are listed on the balance sheet in order of their "liquidity."

	20X1	20X2	20X3
Months of Operations in Year	*12*	*12*	*12*
Cash	41,759	76,218	105,271
Receivables	-	-	-
Inventory	10,880	12,990	11,367
Other & Prepaid Expenses	-	-	-
Total Current Assets	52,639	89,208	116,638

Fixed Assets

Total FF&E or PP&E: Is defined as tangible assets consisting of furniture, fixtures and equipment (sometimes referred to as property, plant and equipment) or simply "fixed assets". These are assets considered to have long useful life (greater than one year).

This category typically includes items such as, land, buildings, leasehold improvements, machinery, equipment, furniture, vehicles, etc. The amount shown is the asset's original cost basis.

Accumulated Depreciation: Depreciation is the practice of charging or expensing the deterioration of an asset over time, according to the useful life of the asset.

	20X1	20X2	20X3
Months of Operations in Year	*12*	*12*	*12*
Total FF&E Assets	257,055	227,656	237,688
Total Accum Depreciation	(188,409)	(197,537)	(220,665)
Net FF&E Assets	68,646	30,119	17,023

Net FF&E Assets: Sum of FF&E and accumulated depreciation.

Amortization/Intangible Assets: Assets having no physical existence. Examples include, but are not limited to, patents, trademarks, copywrites, covenants not to compete, etc.

Another intangible asset is goodwill, which if purchased, is generally amortized over a certain number of years. Building and land (property) is generally amortized.

	20X1	20X2	20X3
Months of Operations in Year	*12*	*12*	*12*
Intangibles	-	-	-
Amortization	-	-	-
Other	128,750	137,492	145,657
Total Assets Other	128,750	137,492	145,657

Liabilities Current

Short-Term Debt: Amounts incurred under promissory notes that are due within one year of the business cycle (i.e., line of credit, current portion of L-T debt).

Accounts Payables: Monies the business owes to vendors that provide credit on an open account.

Other: Are items that could be “accrued expenses” or “current income taxes payable,” etc.

	20X1	20X2	20X3
Months of Operations in Year	*12*	*12*	*12*
Short-Term Debt	-	-	-
Payables	6,881	6,796	5,715
Other Current	-	-	-
Total Current Liabilities	6,881	6,796	5,715

Liabilities Long-Term

Long-Term Debt: Liabilities due after twelve months of the business cycle.

Loan from Shareholders: Funds loaned to the business from a shareholder.

Other: Can be liabilities that do not fit in any of the above categories, but are considered monies due beyond twelve months (i.e., long term contracts signed).

	20X1	20X2	20X3
Months of Operations in Year	*12*	*12*	*12*
Long-Term Debt	60,000	50,000	40,000
Loans from Shareholders	-	-	-
Other	-	-	-
Total Long-Term Liabilities	60,000	50,000	40,000

Stockholder's Equity

Capital Stock: Sometimes called preferred or common stock. For small to mid-size businesses, this line item is generally the shareholder's initial investment in the business. Generally speaking, all stock issuing corporations, issue what is known as common stock. However, for the purpose of attracting certain investors, corporations sometimes issue a type of stock which has certain preferences. This is called preferred stock.

Additional Paid-In Capital: Generally, when shareholder(s) add capital.

Retained Earnings: Accumulated profits that the business "retains" and reinvests in the business.

Equity: The debt-free interest held by the shareholders of the business (commonly referred to as the "net worth" of the business). Owner's equity is determined by subtracting a business' liabilities from its assets.

Liabilities & Shareholder's Equity: The sum of each line item under Stockholder's Equity.

	20X1	20X2	20X3
Months of Operations in Year	*12*	*12*	*12*
Capital Contribution (Stock)	247,279	247,279	247,279
Additional Paid-In Capital	-	-	2,927
Member Draw	(165,689)	(143,989)	(131,929)
Retained Earnings	161,561	151,858	151,583
Other	(59,997)	(55,125)	(36,257)
Total Equity/Capital (Net Worth)	183,154	200,023	233,603
Liabilities & Shareholder's Equity	250,035	256,819	279,318

[73] An example of a five-year spread of balance sheet information is presented in the following table.

Historical Internal Analysis of Balance Sheet

	Balance Sheet					Common-size as a % of Total Assets				
	20X5	20X6	20X7	20X8	20X9	20X5	20X6	20X7	20X8	20X9
Months of Operations in Year	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*
Assets										
Cash	340,209	191,642	296,397	57,819	25,000	18.0	11.0	16.0	3.0	1.0
Receivables	786,737	875,347	879,640	1,125,630	1,496,246	41.7	50.5	47.5	59.2	62.3
Inventory	405,031	400,384	473,805	527,917	683,168	21.5	23.1	25.6	27.7	28.4
Other	72,104	49,558	17,708	44,418	50,886	3.8	2.9	1.0	2.3	2.1
Total Current Assets	1,604,081	1,516,931	1,667,550	1,755,784	2,255,300	85.0	87.4	90.0	92.3	93.8
Total FF&E Assets	1,000,000	1,100,000	1,200,000	1,250,000	1,300,000	53.0	63.4	64.8	65.7	54.1
Total Accum Depreciation	(761,591)	(882,177)	(1,014,998)	(1,103,346)	(1,151,735)	(40.3)	(50.9)	(54.8)	(58.0)	(47.9)
Net FF&E Assets	238,409	217,823	185,002	146,654	148,265	12.6	12.6	10.0	7.7	6.2
Intangible Assets (net)	-	-	-	-	-	-	-	-	-	-
Other	45,757	-	-	-	-	2.4	-	-	-	-
Total Assets	1,888,247	1,734,754	1,852,552	1,902,438	2,403,565	100.0	100.0	100.0	100.0	100.0
Liabilities										
Short-Term Debt	-	-	-	-	135,000	-	-	-	-	5.6
Payables	482,568	503,442	584,012	825,176	887,718	25.6	29.0	31.5	43.4	36.9
Other	194,306	131,878	116,370	76,647	278,571	10.3	7.6	6.3	4.0	11.6
Total Current Liabilities	676,874	635,320	700,382	901,823	1,301,289	35.8	36.6	37.8	47.4	54.1
Long-Term Debt	10,000	12,000	14,000	16,000	18,000	0.5	0.7	0.8	0.8	0.7
Loans from Shareholders	50,000	-	-	-	24,989	2.6	-	-	-	1.0
Other	23,500	20,500	15,125	5,300	3,550	1.2	1.2	0.8	0.3	0.1
Total Long-Term Liabilities	83,500	32,500	29,125	21,300	46,539	4.4	1.9	1.6	1.1	1.9
Total Liabilities	760,374	667,820	729,507	923,123	1,347,828	40.3	38.5	39.4	48.5	56.1
Stockholder's Equity										
Total Equity/Capital (Net Worth)	1,127,873	1,066,934	1,123,045	979,315	1,055,737	59.7	61.5	60.6	51.5	43.9
Liabilities & Shareholder's Equity	1,888,247	1,734,754	1,852,552	1,902,438	2,403,565	100.0	100.0	100.0	100.0	100.0

Lesson 7: Adjusting the Financial Statements

Normalizing Financial Information for BV Purposes

[75] Making adjustments to the financial information is unique in the business valuation profession. The appraiser is making these adjustments to present the business under normal operating conditions without implied income tax consequences. (see VAB6 Chapter 7 pgs. 107-131)

The appraiser should consider all adjustments that can be supported from an investor's viewpoint. These adjustments will help the appraiser and reader better understand the true operating performance of the business. Financial statements are characterized as reporting documents, not tax documents. Both of these documents are often very different for purposes of reporting taxable income.

Control versus Minority Interest Adjustments

Many in the profession believe there are two types of adjustments. On one side, appraisers believe a minority interest that does not have prerogatives of control, these appraisers do not make any adjustments, because minority interests do not have the implicit right. On the flip side, some appraisers believe minority interest adjustments are warranted because majority ownership has a duty to operate the business for the benefit of all interest/shareholders whether minority or majority.

Adjustments to the Balance Sheet

The process of normalizing a balance sheet is required to convert recorded historical amounts to figures that better reflect the true economic market values. Since the process of valuing a business is based on some estimate of economic reality, it is best to adjust the financial information to reflect this change, as of the valuation date.

Oftentimes you may see abnormal depreciation expenditures charged against the fixed assets. IRS tax regulations (i.e., Section 179 deduction) allow for some certain assets to be completely expensed or charged against taxable income in that year's financial period.

- Example; if a business purchased a $30,000 truck in 20X1, and the IRS allows a $25,000 deduction (Section 179) against taxable income, hence depreciation increases by $25,000 immediately. According to the balance sheet and depreciation schedule, the $30,000 truck would be recorded at a remaining book value worth only $5,000. Obviously, there is a need for a professional asset appraiser to make the proper adjustment to account for the "true" or "current" value of the truck on the balance sheet.

You may spend more time normalizing asset and liability values for smaller businesses than larger businesses. The main reason for this is - many smaller type business owners have no one to impress from a financial perspective.

Personal and business activities are often commingled (i.e., personal auto purchased by the business). Non-operating assets can be assets which a business holds, but does not currently produce income for the business (i.e., vacant land for example). These types of items need to be removed to show the true operating picture of the business. Other considerations:

- Excessive assets, a prudent owner would maximize the value of the asset by selling it.
- Asset shortages can result in management's desire to maximize earnings (i.e., impress the buyer or banker).
- Loans to/from parties or affiliates may be non-operating assets or may be reclassified as debt or equity.

When normalizing a business' balance sheet, the appraiser should consider the potential for limitless adjustments. The number of adjustments and the support for each should be balanced against the time allocated (fees) to the business valuation assignment.

Common Balance Sheet Adjustments

[76] Common adjustments that are frequently encountered when reviewing the balance sheets' primary line items.

- Cash: This item may be adjusted for excessive amounts and placed aside as a nonoperating asset and later would be added back in the reconciliation of values section of the report.
- Accounts Receivables: Adjustments for this line item are typically for any portion that may be questionable in regards to collections. The portion deemed to be uncollectable should be removed as a current asset.
- Inventory: This line item is industry specific and varies widely. Some businesses maintain a lower than industry average for inventory, while others may carry excessive amounts of inventory. Another consideration is FIFO (first-in and first-out) and LIFO (last-in and first-out). Another real-world example of accounting for inventory is WETOW (what-ever-the-owner-wants).
- Prepaid Expenses: Look at prepaid expenses for what they really are, do not accept them at face value. Can they and are they able to be transferred?
- Fixed Assets: Adjustments are required to present these assets at their current market values. Any items not necessary to the operation of the business, such as a non-operating asset should be adjusted. A qualified machinery and equipment appraiser may be required to determine the fair market values.
- Depreciation: This is an accounting entry and is typically adjusted in the normalized balance sheet. Remember, the appraiser's objective is to provide actual values for each asset classification as of a specific point in time (i.e., the as-of valuation date).
- Leasehold Improvements: The question that needs to be answered - are any of these assets transferable?
- Other Assets: Common adjustments are for marketable securities, notes receivables, employee advancement, etc.
- Real Estate: May require the services of a commercial real estate appraiser.

- Intangible Assets: If there is a value assigned to this line item, the business has purchased goodwill or an identifiable intangible asset (e.g., patent).
- Accounts Payables: Check this category carefully as it may contain a liability to the owners of the business or a payable that was recorded but will not be paid (i.e., litigation).
- Accrued or Other Expense: May be owner's pension, vacation accruals, taxes, court claims, warranties, etc. This list could be endless – discuss this line item during the management interview process.
- Current & Long-Term Liabilities: Reviewing current financing arrangements (i.e., interest rates, terms, etc.).
- Future Liability Obligations: These could include contracts signed earlier to purchase quantity materials at a certain price in the future or for shipment of materials on a prescribed timetable.
- Off Balance Sheet Items: Assets or liabilities that have not be accounted for.

[77] Obviously, this discussion does not include every possible adjustment. Adjustments commonly encountered have been presented here to illustrate a time commitment in the valuation process.

Normalized Balance Sheet

Balance Sheet Item	20X2	Adjustment		Normalized
Cash & Cash Equivalents	9,148,979	-	*]1]*	9,148,979
Receivables	10,092,909	(175,000)	*[2]*	9,917,909
Inventory	3,578,941	(55,000)	*[3]*	3,523,941
Other	1,962,432	(250,000)	*[4]*	1,712,432
Total Current Assets	24,783,261			24,303,261
Office Furniture & Equipment	177,731	(114,256)	*[5]*	63,475
Light Vehicles	828,878	(276,293)	*[5]*	552,585
Heavy Vehicles	253,665	(95,124)	*[5]*	158,541
Trailers	58,618	(35,171)	*[5]*	23,447
Heavy Equipment	479,828	(266,571)	*[5]*	213,257
Attachments & Misc Equipment	17,919	(7,964)	*[5]*	9,955
Improv. & Capitalized Repairs	49,523	(24,762)	*[5]*	24,762
Total FF&E Assets	1,866,162			1,046,022
Total Accum Depreciation	(1,273,261)	1,273,261	*[6]*	-
Net FF&E Assets	592,901			1,046,022
Other	785,367			785,367
Total Assets	26,161,529			26,134,650
Short-Term Debt	-	-		-
Payables	4,628,596	(1,687,400)	*[7]*	2,941,196
Other	729,258	(500,000)	*[8]*	229,258
Total Current Liabilities	5,357,854			3,170,454
Trapped-In Capital Gains	-		*[9]*	-
Total Long-Term Liabilities	-			-
Total Liabilities	5,357,854			3,170,454
Total Equity/Capital (Net Worth)	20,803,675			22,964,196
Liaiblites & Shareholder Equity	26,161,529			26,134,650

Exercise:

[78] Your assignment is to determine the equity value for a 100% interest using the balance sheet on the next page. Discussion with management and your industry analysis reveal a number of adjustments are warranted for business valuation purposes.

Using the following assumptions, develop a normalized balance sheet (see next page).

- Cash held in the business is 25% greater than the industry benchmark average. This is considered excess cash held by the business.
- According to the aging of receivables report $1,250 is over 90 days old and management does not expect to collect this A/R.
- According to management 10% of inventory held is not saleable.
- An ASA accredited machinery & equipment appraiser valued the fixed assets at the fair market values as follows:

  Machinery & Equipment $125,000

  Furniture & Fixtures $21,000

  Vehicles $51,500
- Leasehold improvements are owned by the landlord who is not related to the business or business owners.
- You discovered $15,000 of long-term debt is related to one shareholder and there is no documentation between the business and shareholder.

[79] Answer the following questions:

- What is the value of equity after normalized adjustments? $____________
- What is the adjusted market value of invested capital? $____________

[80] Solution

Normalized Balance Sheet			
Balance Sheet Item	Historical	Adjustment	Normalized
Cash	135,789		
Receivables	22,657		
Inventory	14,593		
Total Current Assets	173,039		
Machy & Equip	129,874		
Furn & Fixtures	33,789		
Vehicles	82,574		
Lease Improvements	29,874		
Total FF&E Assets	276,111		
Total Accum Depreciation	(220,665)		
Net FF&E Assets	55,446		
Intangible Assets	-		
Total Assets	228,485		
Short-Term Debt	-		
Payables	5,715		
Other	-		
Total Current Liabilities	5,715		
Long-Term Debt	40,000		
Other	-		
Total Long-Term Liabilities	40,000		
Total Liabilities	45,715		
Total Equity/Capital (Net Worth)	182,770		

Common Income Statement Adjustments

[81] Oftentimes, adjustments to the income statement will increase a business' earnings stream, and in some cases, it will decrease earnings. Potential adjustments to income statements commonly relate to:

- Non-recurring income and expenses, such as: (i) lawsuits; (ii) uninsured events; (iii) gain on a sale of assets; and/or (iv) extraordinary issues. This list can be endless; remember each adjustment must be supported by the facts.

- Non-operating income and expenses must be addressed, such as discretionary expenses to reduce taxable income. Issues like family members receiving a pay check when they do not actually work in the business. Any items unrelated to the business' actual operations or that do not provide fair value for their compensation level (e.g., condo payments, etc.).

- Owner's compensation and benefits that exceed reasonable market rates (replacement salary). Sometimes adjustments are made because owner's compensation is below market rates.

  According to the IRS Reasonable Compensation Job Aid, published in 2014, reasonable compensation is generally determined as a range rather than a specific number. The appraiser should compare the owner-employee's compensation with a comparable non-owner employee's compensation (see following example).

Duties	Allotted Time	Salary	
Management	50.0%	$ 45,000	$ 22,500
Salesman	25.0%	$ 30,000	$ 7,500
Accounting	25.0%	$ 20,000	$ 5,000
Annual Hours Worked		2,080	
Annual Replacement Compensation			$ 35,000
Owner's Reported Compensation			$ 42,500
Adjustment to Earnings			$ 7,500

- Expensing versus capitalizing of various costs (e.g., leasing of equipment).

- Non-cash charges (e.g., accelerated depreciation).

- Related (inner family) sales or expense arrangements. An example would be an owner of the company leases property back to the business. If any arrangements do relate to a business' core operations, and are not at arm's length, adjustments should be considered at prevailing market rates.

[82] Quality of the financial information refers to the reliability or truthfulness of the information at hand. In terms of order, financial information is prepared under one of the following formats (from the most reliable to the least).

- Audited financial statements
- Reviewed financial statements
- Compiled financial statements
- Federal Income Tax returns
- Profit & Lost Statements prepared internally
- Shoe Box

Oftentimes, financial information is prepared to manage or minimize taxable income. This information may be inaccurate and prepared for the desired outcome. Other times, businesses may keep two sets of books, one for the bank (show high profitability) and the other for government reporting purposes (low profitability).

Most small to mid-size businesses do not prepare audited or reviewed financial statements. Generally, the business owner will assemble a ledger of accounts and turn this information over to an outside accounting firm to compile monthly, quarterly or in some cases, semi-annual financial statements. Some business owners' financial information is only available from their annual Federal Tax returns.

[83] How many years would be appropriate to normalized? Practitioners generally review five years of historical information; however, there are times when it may be necessary to obtain more than five years (i.e., one complete business cycle).

Normalized Historical EBIT

	20X1	20X2	20X3	20X4	20X5
Months of Operations in Year	12	12	12	12	12
Year-over-Year Growth Rate		*-2.3%*	*14.8%*	*0.5%*	*15.4%*
Gross Sales	45,531,954	44,479,923	51,051,228	51,287,827	59,181,459
Less: Cost of Goods	(38,423,060)	(37,666,431)	(42,868,279)	(43,114,817)	(48,774,630)
Gross Profit	7,108,894	6,813,492	8,182,949	8,173,010	10,406,829
Less: Operating Expenses	(2,539,598)	(2,834,167)	(2,952,855)	(3,243,627)	(3,364,463)
Earnings before Interest & Taxes	4,569,296	3,979,325	5,230,094	4,929,383	7,042,366
EBIT as % of Gross Sales	*10.0%*	*8.9%*	*10.2%*	*9.6%*	*11.9%*
Adjustments to Earnings					
Compensation Adjustment	246,581	359,784	401,598	425,987	435,297
Rent	89,091	86,266	86,451	86,643	83,847
Non Business Related Expenses	-	-	-	120,000	-
Normalized EBIT	4,904,968	4,425,375	5,718,143	5,562,013	7,561,510
Adjusted EBIT as % of Sales	*10.8%*	*9.9%*	*11.2%*	*10.8%*	*12.8%*

[84] Exercise:

After the management interview and industry comparative analysis you have determined three adjustments are warranted for business valuation purposes. Your assignment is to determine the normalized net income.

Using the following assumptions:

- There was a vacation home expensed through the business. You determined this was a non-business related in the amounts of $12,450 on 20X2 and $14,500 in 20X3.
- Your industry analysis revealed owner's compensation was above what someone would pay for similar duties in operating the business. The owner received compensation for years 20X1, 20X2 and 20X3 in the amounts of $68,500, $74,300 and $81,200 respectively. Industry benchmark data indicates owner's compensation at 2.75% of gross sales.
- During the management interview you discovered, the building is owned by a related entity. A review of local real estate rents indicate buildings with 1,800 square feet of space are averaging $18.50 per square foot for 20X3 (triple net lease increases annually at 2%). The related entity has been charging the Company $55,000 for the past three years. Local asking rents have been increasing annually at two-percent.
- You have calculated the Company's blended tax rate (state and federal) at 27.5%.

Normalizing Historical Net Income Available to Equity			
	20X1	20X2	20X3
Gross Sales	2,019,874	2,159,870	2,213,697
Cost of Goods	(412,590)	(442,589)	(456,987)
Gross Profit	1,607,284	1,717,281	1,756,710
Operating Expenses	(1,157,244)	(1,236,442)	(1,264,831)
Operating Earnings (EBIT)	450,040	480,839	491,879
Interest Income (Expenses)	(16,104)	(13,224)	(16,517)
Pre-Tax Earnings available to Equity	433,936	467,615	475,362
Normalized Adjustments to Historical Years			
Personal Use of Business Assets			
Owner's Compensation (arm's-length)			
Rent Adjustments (arm's-length)			
Less: Blended Income Taxes			
Normalized Net Income			

[85] Solution

Question: How would you handle unreported income?

Calculating Net Changes in Working Capital

Working capital equals current assets minus current liabilities. The business owner determines working capital by the amount needed to purchase materials for current production, meet payroll, and pay trade payables.

In order to maintain an adequate level of working capital, the owner must set aside a certain amount of profit to increase working capital and support growth. If working capital is adequate on the Appraisal Date, absent specific data to the contrary, it can be expected to grow at the rate of revenue growth. If it is inadequate, it would be higher in the first years (of the forecast). If excessive, it could be less in the first years, allowing the net cash flow to be higher.

The following table illustrates the calculation of net changes in working capital.

Changes in Net Working Capital

	20X1	20X2	20X3	20X4	20X5	
Months of Operation in Year	*12*	*12*	*12*	*12*	*12*	
Gross Sales	5,604,510	5,491,867	6,405,217	7,571,754	10,357,446	
Current Assets	1,604,081	1,516,931	1,667,550	1,755,784	2,255,300	
Current Liabilities	(776,874)	(760,320)	(830,382)	(1,011,823)	(1,301,289)	
Net Working Capital	827,207	756,611	837,168	743,961	954,011	*Avg*
Working Capital as % to Sales	*14.8%*	*13.8%*	*13.1%*	*9.8%*	*9.2%*	12.1%
Net Change in Working Capital		70,596	(80,557)	93,207	(210,050)	

Calculating Changes in Capital Expenditures

Capital expenditures are defined as; the cost of acquiring fixed assets, adding to a fixed asset (upgrading or adding options), improving a fixed asset or extending a fixed asset's useful life. Capital expenditures will generally increase to support sales growth. A flatting or declining annual expenditure on fixed assets might suggest management is trying to increase earnings to inflate the business' value. A buyer may quickly learn they need additional capital to purchase fixed assets, thus reducing working capital amounts and placing the business in a higher risk category.

The following table illustrates the calculation of changes in capital expenditures.

Changes in Capital Expenditures

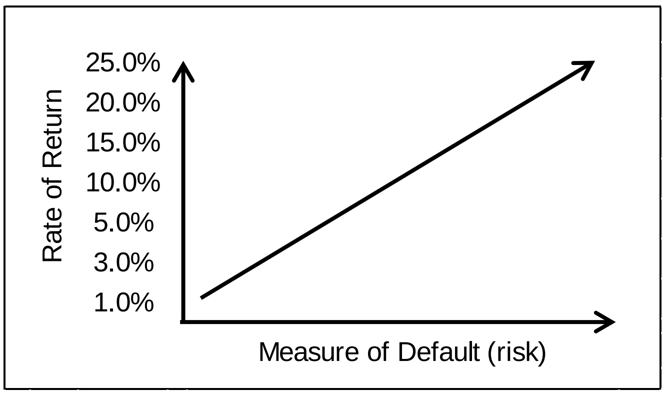
	20X1	20X2	20X3	20X4	20X5	
Months of Operation in Year	*12*	*12*	*12*	*12*	*12*	
Gross Sales	5,604,510	5,491,867	6,405,217	7,571,754	10,357,446	
Total FF&E Assets	1,000,000	1,100,000	1,200,000	1,250,000	1,300,000	Average
Spent from Prior Year		(100,000)	(100,000)	(50,000)	(50,000)	(75,000)
As a % of Sales		-1.8%	-1.6%	-0.7%	-0.5%	-1.1%

Note: Study published in ASA's Business Valuation Review publication titled "The long-term relationship between capital expenditures and depreciation and long-term net working capital to sales across industries". Dated Summer/Fall 2012

Lesson 8: Developing Rates of Return

[87] Cost of capital rates are used in the income approach to valuation. Cost of capital rates are often referred to as discount or capitalization rates. These rates are applied to an expected stream of earnings or cash flows to arrive at an indication of value.

[88] Discount or capitalization rates vary among particular types of businesses and from one period of time to another. Expressed as a percentage, the more speculative a business' income stream, the higher a discount/capitalization rate (produces lower value); conversely, the more stable an income stream, produces a lower discount/capitalization rate (produces a higher value). This stability or non-stability (volatility) is termed "risk." All investments carry some degree of risk.



Conceptually speaking, there are three common types of risk, that can be categorized as business, financial and liquidity risks.

- [89] Business Risk is a broad concept and it relates to all factors which prevents realization of forecasted events. Any item which can impact sales, cost of goods, general and administrative expenses is a component of "business risk." Example: fluctuation in sales due to economic conditions or variations in profit margins due to changes in fixed and variable expenses.[8]

- [90] Financial Risk relates to the single factor which prohibits anticipated sales or profitability from becoming a reality. In concept, financial risk relates to the manner in which assets are financed. If the asset base is financed primarily with equity, the business has minimal financial risk. If debt is the major financial component, the business has significant financial risk.

- [91] Liquidity Risk is a narrow concept. Unlike business and financial risk, liquidity risk relates to the uncertainty associated with transferring the equity interest in a business. Specifically, this risk relates to the uncertain length of time to sell. How long will it take to sell? What is the pool size of potential buyers? Etc.

[8] Variable costs are dependent on the rate of output or sales in a business. Fixed costs occur regardless of the level of output or sales.

[92] How does one judge risk? Performing internal trending, industry benchmarking and financial ratio analysis helps to identify some of the aforementioned risks. If risks are deemed significant, the selected rate of return should be higher, to compensate for the added risk perceived by investors.

As Revenue Ruling 59-60 states: “a determination of the proper (discount) capitalization rate presents one of the most difficult problems in valuation”.

The rate can be thought of as the “expected rate of return” the market demands to attract funds to a particular investment. The appraisers’ goal is to try and quantify investor expectations (forward-looking concept) for an investment in a business or business interest.

Data Sources for Discount & Capitalization Rates

[93] Sources and models to develop discount and capitalization rates can be observed from the market or estimated by the appraiser. Some commonly used sources to obtain these rates are:

- Cost of Capital Navigator (Kroll – Duff & Phelps)
- Cost of Capital Professional (Business Valuation Resources)
- Pepperdine Private Capital Markets Survey
- Implied Private Company Price Line Tool (IPCPL)

Discount and Capitalization Development Models

[94] Models commonly used are: (i) buildup method (BUM) and modified capital asset pricing model (MCAPM), (ii) weighted average cost of capital (WACC), (iii) inverse of market derived valuation multiples, and (iv) factor rating model (see VAB6 Chapter 11 pgs. 207-256)).

Buildup Model

[95] The build-up model makes use of successive individual “components,” each representing the additional risk inherent to investing in alternative assets. Once these separate components are derived, they are added together to “build up” a net cash flow discount rate. The components of the build-up model are.

	Risk-free Rate
+	Equity Risk Premium
+	Size Risk Premium
+/-	Industry Risk Premium (optional)
+/-	Company-Specific Risk Premium
=	Cost of Equity for Net Cash Flow (discount rate)

- The risk-free rate is the rate of return available in the market on an investment free of default risk (as of the valuation date). Appraiser will either use a spot rate or a normalized risk-free rate.

- Equity risk premium (ERP) is a rate of return added to a risk-free rate to reflect the additional risk of equity instruments over risk-free investments. ERPs are calculated in many ways; a few examples are presented below.

Equity Risk Premium	
Historical	6.62%
Supply Side	6.14%
Normalized	5.50%

- Size premium (SP) is a risk premium for size (see following table).

Size Premium		Market Cap[1] Smallest	Market Cap[1] Largest	Size Premium
Breakdown by Deciles				
1		15,484.940	354,351.912	-0.38%
2		6,927.557	15,408.314	0.78%
3		3,596.535	6,896.389	0.94%
4		2,366.464	3,577.774	1.17%
5		1,621.096	2,362.532	1.74%
6		1,090.652	1,620.860	1.75%
7		683.059	1,090.515	1.77%
8		422.999	682.750	2.51%
9		206.802	422.811	2.80%
10		1.028	206.795	6.10%
Breakdown of 10th Decile				
10a		128.714	206.795	4.34%
	10w	170.605	206.795	3.80%
	10x	128.714	170.594	4.75%
10b		1.028	128.672	9.81%
	10y	86.875	128.672	8.93%
	10z	1.028	86.757	11.77%

[1] *in Millions*

- (Optional) Industry risk premium (IRP) is a premium to reflect risks unique to the industry in which the Subject company operates. As presented in the following table, the risk premiums vary widely within the same SIC code. (see VAB6 pg. 232)

Industry Risk Premium

SIC	Description	# Co.'s	Premium
28	Chemicals & Allied Products	471	-1.91
281	Industrial Chemicals	32	1.14
2813	Industrial Gases	5	-0.26
2819	Industrial Chemical, NEC	23	3.90

- Company-specific risk premium (CSRP) - a risk premium for the unsystematic risk of the Subject company. All firms face company-specific risks. A few examples are illustrated in the following table. Appraisers will either use a plus or minus symbol and discuss the support for the CSRP. Another technique is to assign a percentage to each company-specific risk.

Company-Specific Risk Premium		%
Depth of Management	-	-1.00%
Importance of Key Personnel	-	-1.00%
Stability of Industry	+	1.00%
Diversification of Product Line	+	1.50%
Diversification of Customer Base	-	-0.50%
Diversification/Stability of Suppliers	+	1.50%
Geographic Location	+	1.00%
Earnings Margins	+	1.50%
Financial Structure	+	1.00%
Total	5.0%	5.00%

[96] The following table presents an illustration of the various components in the "build-up" model.

Development of Rate of Return Applicable to Equity	
Description	Rate
Risk-Free Rate (as of the valuation date)	2.24
Equity Risk Premium	6.18
CRSP Decile Size Premium (10b)	8.41
(Optional) Industry Risk Premium	-
Company-Specific Risk Adjustments	5.00
Net Cash Flow Discount Rate (next year)	21.83
Minus: Long-Term Growth Rate	(5.00)
Net Cash Flow Capitalization Rate (next year)	16.83

The profession has seen a bit of confusion among valuation practitioners regarding the use of publicly traded company data to derive a rate of return. Since most companies in the S&P 500 and NYSE are minority held, some practitioners assume the risk premia data are derived from the return data representing minority interest returns and therefore have a minority discount implicit within them.

This assumption is not correct. The returns that are generated by the S&P 500 and NYSE represent returns to equity holders. There is no evidence higher rates of return could be earned if these companies were suddenly acquitted by majority shareholders. According to Morningstar and other well-known valuation professionals, there is no distinction between minority owners and controlling owners. (see VAB6 pgs. 176-177)

Alternative model (Kroll) that combines the equity risk premium and the size premium ranked by portfolio size. Note: this course presents information concentrating on the 25th portfolio only.

Development of Cost of Capital

Measurement Size Characteristics	Portfolio Rank by Size	Average Value ($mils)	Average Debt/ MVIC	Number of Firms	Average Risk Premium
Book Value of Equity	25	76	23.06%	249	12.07
Five-Year Average Net Income	25	5	24.59%	253	12.97
Total Assets	25	161	19.50%	297	12.76
Five-Year Average EBITDA	25	17	21.55%	304	12.55
Gross Sales	25	129	20.07%	276	12.64
Number of Employees[1]	25	305	20.33%	236	12.56

[1] *Employees not in millions*

Avg Market Equity Risk Premium	12.59
Normalized Risk Free Rate	3.00
Equity Risk Premium Adjustment	0.48

Company Specific Risk Premium	Low	Avg	High
Depth of Management	X		
Diversification of Product Line		X	
Diversification of Customer Base			X
Liquidity Adjustment		X	
Earnings Margins	X		
Financial Structure		X	

Specific Company Risk Premium	4.00
Net Cash Flow "Equity" Discount Rate	20.07
Minus: Long-Term Growth Rate	(3.00)
Net Cash Flow "Equity" Capitalization Rate	17.07

Regression model using the Kroll Cost of Capital Navigator.

Development of Cost of Capital

	Subject's Data $mil's	Debt/ MVIC	Subject's Logarithm	*Duff & Phelps Risk Premium* Slope	Constant	ERP
Book Value of Equity	$ 0.65	23.73%	-0.187	-2.401	16.589	17.04
Five-Year Average Income	$ 1.20	24.92%	0.079	-2.565	14.722	14.52
Total Assets	$ 1.90	19.78%	0.279	-2.732	18.786	18.02
Five-Year Average EBITDA	$ 1.40	21.91%	0.146	-2.478	15.593	15.23
Gross Sales	$ 9.5	20.33%	0.978	-2.442	17.796	15.41
Number of Employees[1]	17	20.64%	1.230	-2.368	18.534	15.62

[1] *Employees not in millions*

Average Equity Risk Premium (without)	15.19
Normalized Risk Free Rate	3.00
Equity Risk Premium Adjustment	0.48

Company Specific Risk Premium	Low	Avg	High
Earnings Margins	X		
Financial Structure		X	
Specialty Practice Risk			X
Management Depth		X	
Liquidity Adjustment			X

Specific Company Risk Premium	3.00
Net Cash Flow "Equity" Discount Rate	21.67
Minus: Long-Term Growth Rate	(5.00)
Net Cash Flow "Equity" Capitalization Rate	16.67

Presented below is a breakdown of the 25th portfolio. If the Company's normalized financial measurements do not meet to exceed the "smallest company" measurements, those financial measurements should not be used to estimate the cost of capital.

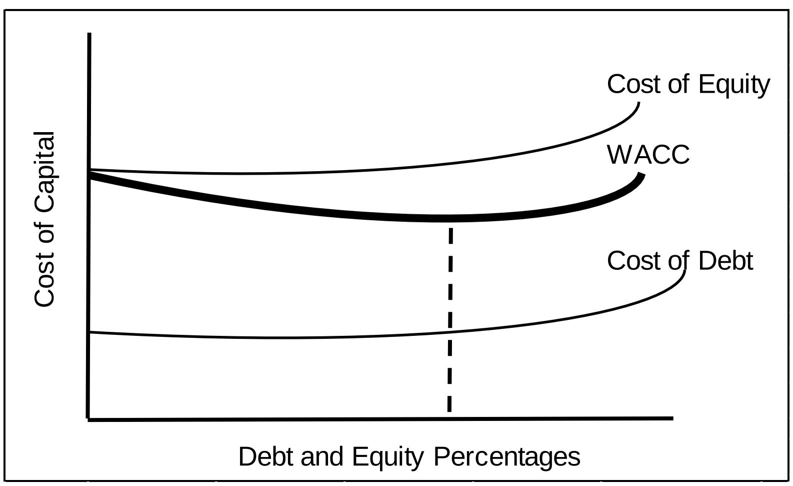
Size Measures of Companies Comprising 25th Portfolio, by Percentile						
Percentile	Book Value of Equity	5-Year Average Income	Total Assets	5-Year Average EBITDA	Gross Sales	Number of Employees
in $ millions, except for # employees						
Smallest Co.	4.76	0.05	9.28	1.13	2.62	1
5th	13.87	0.67	24.58	2.11	18.31	10
25th	33.63	1.98	62.16	6.99	55.81	131
50th	74.35	4.15	163.58	15.12	118.96	272
75th	116.88	7.29	249.86	26.61	200.27	485
95th	151.28	10.30	318.17	36.76	276.46	641
Largest Co.	159.20	11.27	346.47	39.39	307.86	686
Selected Measurement		X		X	X	X
Subject	**0.65**	**1.20**	**1.90**	**1.40**	**9.50**	**17**

Weighted Average Cost of Capital

There are several advantages of using a weighted average cost of capital (WACC) rate: (i) when the appraiser is uncertain about future operating debt levels; and (ii) when the valuation assignment calls for an invested capital (as if debt free) value.

[97] The discount rate used to value invested capital is the weighted average cost of capital. WACC is a blended rate comprised of the cost of debt and the cost of equity, weighted in accordance to the debt-equity mix at market values of both debt and equity.

[98]



[99] Conceptually speaking, the most common formula for computing a company's basic weighted average cost of capital (WACC) is as follows:

- Equity cost of capital
- Cost of debt
- Income tax rate
- Equity capital structure (%)
- Debt capital structure (%)

[100] Illustrated below is the capital structure percentages and computation of WACC. The WACC rate is applied to net cash flows available to invested capital.

Weighted Average Cost of Capital (WACC)				
Equity Discount Rate				27.0%
Cost of Debt				6.0%
Tax Bracket				28.0%
Selected Capital Structure				
Debt %				24.0
Equity %				76.0
Computation of WACC				
Component	Tax Effect	Net Rate	Ratio	Calculation to WACC
Cost of Debt (1 minus tax rate)	0.72	4.3%	24.0	1.0
Equity Rate (Discount Rate)		27.0%	76.0	20.5
Invested Capital WACC Applicable to Net Cash Flow *(Discount Rate)*				21.56
Long-Term Growth Rate				(3.00)
WACC Applicable to Net Cash Flow *(Capitalization Rate)*				18.56

[101] You have two choices to make regarding the capital structure percentages (debt and equity). Select a capital structure from guideline market data or use the business' current capital structure at market.

[102] If you elect to use the latter, this means you will have to use an iterative process. A common mistake is assuming the buildup of extra cash, and the Subject company will pay down debt. This is an unrealistic assumption mainly because management will more than likely maintain some level of constant debt-to-equity over several years. Future debt-to-equity ratios should be looked at very carefully.

Developing Capital Structure for WACC (Iterative Process)			
	Metrics	Indicated FMV Value	Weighted Portion
Earnings Stream	$ 250,000		
Capitalization Rate	0.172	1,453,488	
Less: Book Value of Debt		350,000	
Estimated MV Common Equity		1,103,488	75.92%
Book Value of Debt @ Market		350,000	24.08%

Some appraisers may use the industry average (based on an analysis of guideline public companies); care should be taken as public firms may differ from the Subject firm in key attributes impacting the ability to support debt.

Exercise:

[103] Use the following information to calculate the weighted average cost of capital.

• Equity discount rate	25.0%
• Cost of Debt	7.2%
• Blended Tax Rate	23.5%
• Long-Term Growth Rate	5.0%
• Market Value of Equity	60.0%

What is your WACC discount rate? _______________

What is your WACC capitalization rate _____________

[104] Solution Practice Tip: When discounting net cash flow to equity, the appropriate rate of return is the cost of equity. When discounting net cash flow to invested capital, the proper rate of return is the weighted average cost of capital (WACC).

Capital Asset Pricing Model

[105] The capital asset pricing model ("CAPM") is used to determine a theoretically appropriate required rate of return on an asset. The model describes the relationship between risk and expected return in pricing securities.

This model states the price of a stock is tied to two variables: the time value of money; and the risk of the stock. The time-value-of-money is represented by the risk-free rate of return. The risk of the stock is represented by beta.

[106] Beta is a number that describes the relationship of a stock's returns with that of the market as a whole.

- A beta of 1.0 indicates the stock's price moves in tandem with the market.
- A beta greater than 1.0 indicates the stock's price moves in the same direction as the market but with more volatility.
- A beta lower than 1.0 indicates the stock's price moves in the same direction as the market but with less volatility.

Using the risk-free rate, the overall markets risk, and a stock's beta an appraiser can calculate a stock's expected rate of return (ERR).

The formula for ERR is: ERR = rf + β (MR) Where:

rf = risk-free rate of return

β = beta

MR = market risk (equity risk premium)

Market risk (also referred to as systematic risk) is a non-diversifiable risk that is inherent in the entire market. Unsystematic risk is company or industry specific. This risk can be reduced through diversification. A single stock or business exposes an investor to both systematic risk and unsystematic risk. As more stocks or businesses are added to a portfolio, unsystematic risk is reduced. (see VAB6 pgs. 221-222 regarding unsystematic risk)

Modified Capital Asset Pricing Model (MCAPM)

[107] The business valuation profession has modified the original CAPM by adding-in components for size and specific company risk. According to Morningstar[9] *"betas do not account for all of the risks faced by those who invest in small companies."* To better account for this additional risk, appraisers may add in components for: (i) industry; (ii) firm size; and (iii) specific company risk.

Levered and Unlevered Betas (see VAB6 227-232)

A levered beta reflects a company's current capital structure, including debt. An unlevered beta is a company's beta after the effects of leverage is removed from the capital structure. Removing debt allows investors to compare various companies base level of risk. There are two commonly used formulas for un-levering betas. The Hamada formula is based on constant debt in dollars. The Harris-Pringle formula allows for alternative adjustments. Both formulas are based on market value of debt and equity (not book values).

Un-levered Market Beta	=	Levered Market Beta / 1 + [(Guideline book value Debt/Equity) x (1 - Guideline Tax Rate)]
Re-levered Company Beta	=	Un-levered Market Beta x 1+ [(Company's debt/equity) x (1 - Company's Tax Rate)]

[9] Source: Morningstar publishes a beta book.

Example (Unlevered Beta)

[108] The following table presents four selected companies as our peer group. The debt/equity ratios are from the most recent balance sheet. The tax rate is applicable to the most recent data.

Guideline Companies	A	B	C	D	Average
Beta	1.20	1.40	1.50	1.60	1.43
Capital Structure					
Debt %	30.0%	36.0%	22.8%	46.6%	
Equity %	70.0%	64.0%	77.2%	53.4%	
Ratio (debt/equity)	42.9%	56.3%	29.5%	87.3%	54.0%
Income Tax Rate	40.0%	37.8%	36.8%	33.6%	37.1%
Unlevered Beta	0.95	1.04	1.26	1.01	1.07

The calculation of Company A's unlevered beta is as follows:

- $\beta u = 1.20 \div (1 + (1\text{-}0.40) \times (0.429)]$ (debt)
- $\beta u = 1.20 \div [1 + (0.60) \times (0.429)]$ (equity)
- $\beta u = 1.20 \div [1 + .648]$
- $\beta u = 1.20 \div 1.257$
- $\beta u = 0.95$

Example (Re-Levered Beta)

[109] The mean unlevered beta for the peer group is 1.07. The Subject company has a debt-to-equity ratio of 81.8 percent and an effective tax rate of 35 percent. To obtain an estimate of the Subject Company's beta, re-lever the peer group's unlevered beta (1.07) by the Subject's debt/equity ratio (0.818).

Company's Relevered Beta		
Unlevered Industry Beta		1.07
Company's Capital Structure		
Debt %	45.0%	
Equity %	55.0%	
Ratio (debt/equity)	81.8%	
Company's Income Tax Rate	35.0%	
Company's Relevered Beta		1.63

- $\beta L = 1.07 \times \{1 + (1\text{-}0.35) \times (0.818)\}$
- $\beta L = 1.07 \times \{1 + (0.65) \times (0.818)\}$
- $\beta L = 1.07 \times \{1 + .335)\}$
- $\beta L = 1.07 \times 1.53$
- $\beta L = 1.63$

[110] Example (MCAPM) The cost of equity using MCAPM model is shown below. Note: the equity risk premium is beta adjusted and rounded, by multiplying the equity risk premium by the beta.

Risk-Free Rate		2.48
Forward Equity Risk Premium	5.50	
Company's Relevered Beta	1.63	
Beta Adjusted Equity Risk Premium		8.97
Size Premium (decile 10)		6.10
Company-Specific Risk Premium		3.00
Equity Discount Rate		20.55

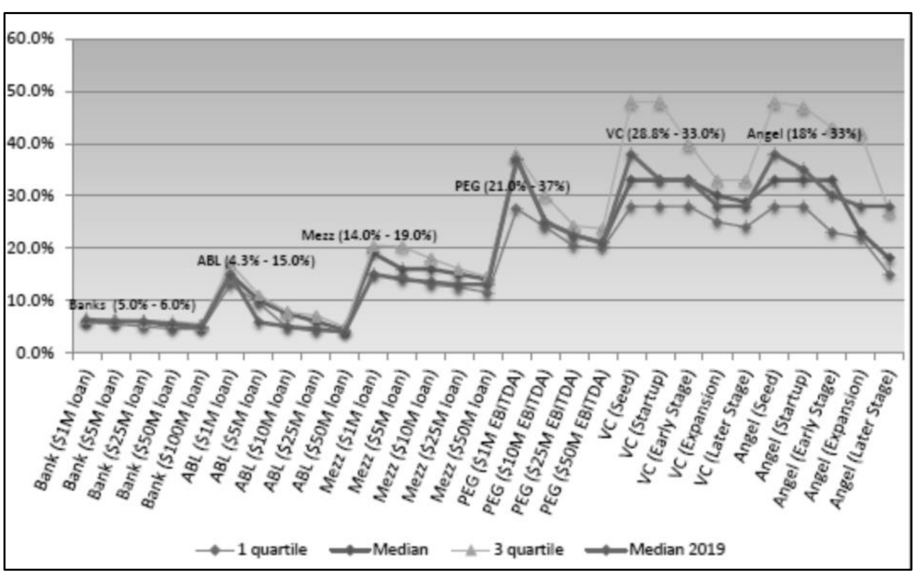
<u>Practice Tip</u>: Be careful not to double count the company-specific risk premium in this model.

Private Cost of Capital Model (PCOC)

[111] The private cost of capital model is based on the premise that public market data is not a valid substitute for determining the cost of capital for a closely held company. Instead, the cost of private capital is derived from the Pepperdine Private Cost of Capital Survey.

The Pepperdine Private Capital Markets Survey is the first comprehensive investigation of the major private capital market segments. The surveys specifically examine the behavior of senior lenders, asset-based lenders, mezzanine funds, private equity groups, venture capital firms, angel investors, factoring firms, privately-held businesses and business appraisers.

[112] The Pepperdine Private Capital Markets Survey collects information on five broad categories in the private market: banks, asset-based lenders, mezzanine investments, private equity investment, and venture capital investment. The following table illustrates the results from the 2020 survey.



For each category PCOC presents the required rate of return for extending the capital in the current economic environment, how much capital is typically accessible, and benchmarks that must be met to qualify for the capital.

[113] Below is a conceptual example for estimating PCOC.

Asset	$M	Liabilities and Equity	$M	Invest. Size		Cost of Capital
Net Working Capital	0.0	Senior Debt	12.5	2.5	x	5.5%
Long-Lived Assets	35.0	Subordinated Debt (Mezz)	5.0	1.0	x	19.5%
		Equity	17.5	3.5	x	30.0%
	35.0		35.0	7.0	x	

EBITDA	$ 5
Multiple	7x
Market Value	$35.0

PCOC = [5.5% * (2.5/7)] + [19.5% * (1.0/7.0)] + [30.0% * (3.5/7.0)]
Pretax PCOC = 19.75%

Capital Type	Market Value	% of Total	Rate	Tax Effect	Rate Factor
Cost of Debt	$17,500,000	50.0%	6.50%	0%	3.3%
Cost of Equity	$17,500,000	50.0%	30.00%	0%	15.0%
Total	$35,000,000	Pre-tax equity cost of capital			18.3%

Market Derived Discount Rates

[114] Another procedure used to calculate a rate of return is to look at industry-specific guideline company data. A price-to-earnings ratio (multiple) plus the long-term growth rate is used to estimate a discount rate. An example, by using DealStats database - one can obtain a valuation multiple and convert to a discount rate. This simplified example uses the average market multiple from the selected comparable transactions.

Formula		100.0
Divide by:	Selected Earnings Market Valuation Multiple	3.7
Equals:	Capitalization Rate	27.0
Add:	Long-Term Earnings Growth Rate	4.0
Equals:	Discount Rate	31.0

The major issue is selecting the appropriate valuation multiple and determining the long-term earnings sustainable growth rate. Caution should be used if developing a rate of return by this model, as you do not know the private guideline company’s growth rates from different databases.

If the goal is to apply only the capitalization of earnings method in the valuation assignment, this *could* be used in the income approach.

Factor Rating Model

[115] This is a model used when valuing very small businesses by assigning weightings to 10 different risk factors (see following example on next page).

This model assumes a hypothetical buyer would pay somewhere in the range of 1-to-3 or 4 years' worth of discretionary earnings for a very small privately held business. The model develops a rate that really applies to a truly smaller type of business, such as where an individual is "buying a job" as the major consideration as opposed to a return on investment.

[116] The International Business Brokers Association defines "discretionary earnings" as the earnings of a business prior to the following items:

- Income taxes
- Nonoperating income and expenses
- Nonrecurring income and expenses
- Depreciation and amortization
- Interest expense and income
- Owner's total compensation for those services that could be provided by a sole owner/manager

According to Jack Sanders, publisher of BizComps Database, "the ultimate sale price of a business sold should be in the range of 1.5 to 3.5 times Seller's Discretionary Cash Flow."

Seller's discretionary earnings (SDE) are generally considered a "return on labor" concept. Net cash flow can be often classified as a "return on investment."

Development of Discretionary Earnings Multiple BUSINESS RISK CHARACTERISTICS		Selected Multiple	Weights	Multiple Value
STABILITY OF HISTORICAL EARNINGS				
0.1 - 1.0	Marginal, erratic and/or less than 3 years history	3	10	30
1.1 - 2.0	Erratic or stable, but at or near industry norm			
2.1 - 3.0	Stable, above industry norm and 5 years or more history			
BUSINESS AND INDUSTRY GROWTH				
0.1 - 1.0	Flat or declining or below industry norm	3	9	27
1.1 - 2.0	Flat or slightly increasing or at or near industry norm			
2.1 - 3.0	Rapid growth and above industry norm			
TYPE OF BUSINESS				
0.1 - 1.0	Service business with few assets	2	8	16
1.1 - 2.0	Service or retail with significant assets			
2.1 - 3.0	Wholesale, distribution or manufacturing			
LOCATION AND FACILITIES				
0.1 - 1.0	Poor neighborhood, location, and/or facilities	3	7	21
1.1 - 2.0	Good neighborhood. location, and facilities			
2.1 - 3.0	Above average location and/or facilities			
STABILITY AND SKILLS OF EMPLOYEES				
0.1 - 1.0	High turnover and/or unskilled employees	3	6	18
1.1 - 2.0	Low to industry norm turnover and well-trained employees			
2.1 - 3.0	Long-term, well-trained, and motivated employees			
COMPETITION				
0.1 - 1.0	Highly competitive and/or unstable market	2.5	5	12.5
1.1 - 2.0	Friendly competition and/or stable market			
2.1 - 3.0	Few competitors and/or high startup costs			
DIVERSIFICATION OF PRODUCTS, SERVICES				
0.1 - 1.0	Limited product lines, services and/or size of markets	2.5	4	10
1.1 - 2.0	Diversification of products, services and/or markets			
2.1 - 3.0	National and/or international market diversification			
DESIRABILITY AND MARKETABILITY				
0.1 - 1.0	Limited buyers and/or low esteem	3	3	9
1.1 - 2.0	Respectable and challenging environment			
2.1 - 3.0	Many buyers, ease of operation and high esteem			
DEPTH OF MANAGEMENT				
0.1 - 1.0	Owner/managers - no other levels of management	1.75	2	3.5
1.1 - 2.0	More than one level of supervision			
2.1 - 3.0	Multi-layers of professional staff & line management			
AVAILABILITY OF CAPITAL/TERMS OF SALE				
0.1 - 1.0	All cash required and limited debt capital available	3	1	3
1.1 - 2.0	Normal market terms available			
2.1 - 3.0	Normal to above market terms available			
		Selected Multiple - TOTAL		150
		Market Weights - TOTAL	55	
	(Selected Multiple Divided by Market Weight)	Valuation Multiple		2.7

Risk Premium Guideline Table

James Schilt, the editor of the Business Valuation Review, in a personally authored article, published a table illustrating guidelines for risk premiums applicable to pre-tax income. The selected risk premium must be added to a risk-free rate to derive a discount rate.

RISK PREMIUM GUIDELINES		
Applicable to Pre-Tax Earnings Available to Equity		
Category	*Risk Premium*	*Description of Business in each Category*
1	6-10%	Established businesses with a strong position, that are well financed, that have depth in management, whose past earnings have been stable and whose future is highly predictable.
2	11-15%	Established businesses in a more competitive industry that are well financed, have depth in management, have stable past earnings and whose future is fairly predictable.
3	16-20%	Businesses in a highly competitive industry that require little capital to enter and no management depth, and where the elements of risk are high although the past record may be good.
4	21-25%	Small businesses that depend upon the special skills of one or two people. Larger businesses that are highly cyclical in nature. In both cases, future earnings may be expected to deviate widely from projections.
5	26-30%	Small "one-person" businesses of a personal services nature, where the transferability of the income stream is in question.

Development of a Pre-Tax Equity Rate	
Risk-Free Rate (as of valuation date)	2.54
Selected Equity Risk Premium	21.00
Equals: Pre-Tax Capitalization Rate to Equity	23.54
Plus: Long-Term Growth Rate	5.00
Equals: Pre-Tax Discount Rate to Equity	28.54

Implied Private Company Pricing Line (IPCPL)

[117] IPCPL is a fairly recent model for estimating private company cost of capital using information from DealStats database. The authors[10] developed the IPCPL 500 using DealStats private company transactions. The *Implied Private Company Pricing Line* uses small private company transaction data to solve for the cost of capital for a private company with $50 million or less in revenue. According to the developers, this model works best[11] for businesses with sales less than

[10] Source: Rod Burkert, Peter Butler and Bob Dohmeyer.
[11] Source: Skeptics question the composition of the underlying data. A number of analytical procedures are undertaken in order to utilize historical data and extrapolation is used for companies with sales greater than $10 million. It is hard to explain all of the underlying analyses to an unsophisticated third party.

$10 million where the foundation is transactions of other closely held businesses rather than public-company share transactions. (see VAB6 pg. 252)

A detailed article on this model can be found on Business Valuation Resources' website. The authors have developed a website which one can enter the company's sales figure to provide the average private company cost of capital at www.biz-app-solutions.com. The basics of the model are: $K_o = (FCFF_1 / P_o) + g$

Where:

K_o = WACC rate
$FCFF_1$ = free cash flow for the firm (NCF to invested capital[12])
P_o = price (sold)
g = growth rate (average of IPCPL)

By using the prices paid for small privately held companies, the IPCPL can be updated monthly. The model uses market evidence for developing a base discount rate with average market characteristics.

Revenue	Rate
$ 100,000	23.73%
$ 200,000	23.68%
$ 300,000	23.62%
$ 400,000	23.57%
$ 500,000	23.51%
$ 600,000	23.46%
$ 700,000	23.40%
$ 800,000	23.35%
$ 900,000	23.29%
$1,000,000	23.24%
$1,100,000	23.18%
$1,200,000	23.13%
$1,300,000	23.07%
$1,400,000	23.02%
$1,500,000	22.96%

Data is updated monthly

[118] An adjustment to the market (base) discount rate may be warranted if Subject company has more or less risk factors than the average industry benchmark comparison data (see following table).

Sales $500,000 - IPCPL Discount Rate	23.51%
Risk Adjustment	2.00%
Company's Discount Rate	25.51%
Minus: Company's L-T Growth	-5.00%
Company's Capitalization Rate	20.51%

12 In calculating (FCFF) NCF to invested capital, all cash is removed from the cash flow equation.

[119] The following example is provided for use in the discounted future earnings method (multiple period method).

Private Company Cost of Capital from IPCPL		25.51%			
Forecasted Invested Capital Earnings			PV Factor		
	F-1	$175,000	0.797	=	139,431
	F-2	$150,000	0.635	=	95,221
	F-3	$157,500	0.506	=	79,661
Long-Term Growth Rate	5.00%	1.05			
Terminal		$165,375	0.506	=	83,644
Capitalization Rate					20.51%
Terminal Value				=	$407,821
Initial Indication of Value		722,134			
Add: Cash		45,000			
Indicated Invested Capital Value		767,134			
Less: Certain Liabilities		(135,698)			
Indicated Equity Value		$631,436			

Indications of Value

[120] Previously you learned a rate of return must be applied to the proper earnings stream. The appraiser must decide which earnings stream(s) to select in a given assignment.

[121] As gleaned from the following table, applying the selected rate to the appropriate earnings stream will produce identical values. The table is for illustration purposes only. There will be times when EBITDA, pre-tax, net income and net cash flow earnings streams may be negative. That leaves you with one option - SDE.

Earnings and Rates of Return

Financial Measurement	Earnings Stream	Math	Rate	Indication of Value
SDE	$167,962	times	2.75	$ 461,895
EBITDA	$123,172	times	3.75	$ 461,895
EBIT	$110,855	divided	0.24	$ 461,895
Pre-Tax Earnings	$101,617	divided	0.22	$ 461,895
Net Income	$ 92,379	divided	0.20	$ 461,895
Net Cash Flow	$ 69,284	divided	0.15	$ 461,895

Exercise:

[122] Using the following case study information, develop an appropriate discount and capitalization rate.

> Dr. Smith is a sole practitioner offering a full range of services related to physical therapy. Dr. Smith works approximately 32 hours per week and at age 55 is considering reducing his hours. As such, he is contemplating selling part of his practice with the idea of gradually reducing his ownership.
>
> Dr. Smith has seen steady growth in terms of sales (6%) and profitability (4%) over the past five years. The financial performance of the practice is considered average to the industry. The physical therapy profession, according to industry information, is forecasting to grow at 2% for sales next year and 4% to 6% over the next three-to-five-year period. The economy hasn't affected profitability or sales as the immediate area from which business is obtained is considered middle class with expected population growth rates averaging approximately five-percent over the next ten-years.

Assumptions to use:

Risk-free rate of return	2.6%
Equity risk premium	6.7%
Size premium	4.5%
Cost of debt	6.0%
Blended tax rate	27.0%
Company -specific risk premium	4.0%
Market value % of equity	60.0%

What is the Practice's equity net cash flow discount rate? ________%

What is the equity net cash flow capitalization rate? ____________%

What is your selected long-term growth rate?_______%, why? _________________________

[123] Solution

Lesson 9: Financial Forecasting

Forecasting versus Projections

[125] According to the AICPA, the definitions for "forecast" and "projection" have different meanings.

- A financial forecast is based upon actual conditions that are expected to exist during the forecasted period.
- A projection is based upon expected conditions given one or more hypothetical assumptions.

[126] In the Guide to Forecasts and Projections published by Thomson Reuter's, states:

> …"financial forecasts present the entity's expected financial position, results of operations, and cash flow for a future period. A forecast is based upon assumptions that reflect conditions the responsible party expects to exist and the course of action it expects to take."
>
> …"financial projections present the financial position, results of operations, and cash flow for a future period that a responsible party would expect based on the occurrence of one or more hypothetical assumptions. A hypothetical assumption is one that is not necessarily expected, but is consistent with the purpose of the projections (that is, a what if?). A projection is based on assumptions that reflect conditions the responsible party expects would exist and the course of action it expects would be taken if the hypothetical assumptions occurred."

In context of business valuation, value is based upon some measure of actual historical conditions and some level of future assumptions about reasonable probabilities of certain events or conditions that are expected to occur in the future. If a forecast is based upon actual events and a projection is based upon hypothetical assumptions, then in a business valuation assignment, one might likely believe a combination of both is rational. (see VAB6 Chapter 12)

Developing Financial Projections

[127] Financial forecasting is difficult and time consuming. In some cases, the appraiser will be able to use a forecast prepared by management. However, in the majority of cases the appraiser will have to prepare the forecasts. If electing to use management's forecast, the appraiser needs to analyze the forecast to determine if it is reasonable. (see VAB6 pgs. 257-281)

Businesses typically follow a pattern, oftentimes called a business cycle. The timing, extent and duration of each cycle can vary widely. For example, some industries enter a recession period late, while others may be the leading indicator a recession is on the horizon (i.e., trucking industry loads). The majority of businesses will have cycles of growth and decline.

The key to forecasting future financial performance is developing an assumption of how the company will perform based on key value drivers.

[128] To develop a meaningful financial forecast the following basic steps should be followed.

- *Determine the number of years to be forecasted*. This is often driven by an estimate of the number of future years which will experience unsustainable growth before assumptions of stable earnings and a constant growth rate are reasonable. After level operations are reached, a flat or stable growth in the net earnings stream into perpetuity is assumed.

- *Develop a calculated perspective*. This means creating a narrative that describes the company's future performance. This narrative considers such things as industry economic factors; where the company's products are in the product life cycle; new product development; acquisition plans; changing demographics; and competitive advantages.

- *Select a forecasting model*. Several techniques are available to support the various assumptions used in preparing a reasonable financial forecast. The quality of the underlying assumptions and support of those assumptions used in a financial forecast many times will establish a reasonable proxy for future expectations of the business.

[129] A few techniques discussed here are:

- Percentage Technique
- Most Likely, Best-Case and Worst-Case Scenario
- Fixed and Variable Cost Technique
- Historical Weighting Technique
- Probability Weighted Expected Earnings Model

Percentage Technique

[130] The percentage technique takes into account selected line items from the income statement, as a percentage of sales. For example, in the following table, cost of goods is estimated from the most recent historic or normalized period.

If the assumption is each line item will remain the same percentage of sales – you simply have to apply a capitalization of earnings method to produce an indication of value.

Be careful not to automatically apply the same percentages for each line item – this assumption rarely occurs.

[131] The following tables present information using the historical five-year average totals as the base year in the forecast.

	Normalized Net Cash Flow					As a Percentage of Gross Sales						
	20X5	20X6	20X7	20X8	20X9	20X5	20X6	20X7	20X8	20X9	Totals	5Y Totals
Months of Operations in Year	*12*	*12*	*12*	*12*	*12*							
Gross Sales	5,604,510	5,491,867	6,405,217	7,571,754	10,357,446	100.0%	100.0%	100.0%	100.0%	100.0%	35,430,794	100.0%
Cost of Goods	(3,763,719)	(3,763,719)	(3,763,719)	(4,763,719)	(6,763,719)	-67.2%	-68.5%	-58.8%	-62.9%	-65.3%	(22,818,595)	-64.4%
Gross Profit	1,840,791	1,728,148	2,641,498	2,808,035	3,593,727	32.8%	31.5%	41.2%	37.1%	34.7%	12,612,199	35.6%
Operating Expenses	(1,814,415)	(1,692,375)	(1,847,767)	(1,898,279)	(2,949,236)	-32.4%	-30.8%	-28.8%	-25.1%	-28.5%	(10,202,072)	-28.8%
Operating Income (EBIT)	26,376	35,773	793,731	909,756	644,491	0.5%	0.7%	12.4%	12.0%	6.2%	2,410,127	6.8%
Interest Income (Expenses)	(12,578)	(10,589)	(9,524)	(10,257)	(11,689)	-0.2%	-0.2%	-0.1%	-0.1%	-0.1%	(54,637)	-0.2%
Other Income (Expenses)	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%
Pre-Tax Earnings	13,798	25,184	784,207	899,499	632,802	0.2%	0.5%	12.2%	11.9%	6.1%	2,355,490	6.6%
Normalized Adjustments to Pre-Tax Income												
Non-Recurring Expenses	31,423	27,162	17,550	-	-	0.6%	0.5%	0.3%	0.0%	0.0%	76,135	0.2%
Owner's Perquisites	185,178	180,442	185,945	185,842	253,875	3.3%	3.3%	2.9%	2.5%	2.5%	991,282	2.8%
Rent Adjustment	12,541	5,681	(5,623)	15,620	16,520	0.2%	0.1%	-0.1%	0.2%	0.2%	44,739	0.1%
Reasonable Owner's Compensation	(26,301)	(18,546)	(5,261)	26,587	32,560	-0.5%	-0.3%	-0.1%	0.4%	0.3%	9,039	0.0%
Normalized Pre-Tax Earnings	216,639	219,923	976,818	1,127,548	935,757	3.9%	4.0%	15.3%	14.9%	9.0%	3,476,685	9.8%

[132] Gross sales are projected for a certain number of years. The five-year averages are used in terms of percentage of sales into the forecast.

	Detailed Forecast				Calculated as % of Sales			
	5Y Historical Totals	F1	F2	F3	% 5Y	F1	F2	F3
Gross Sales	35,430,794	11,911,063	13,102,169	14,150,343	100.0%	100.0%	100.0%	100.0%
Cost of Goods	(22,818,595)	(7,671,116)	(8,438,227)	(9,113,285)	-64.4%	-64.4%	-64.4%	-64.4%
Gross Profit	12,612,199	4,239,947	4,663,942	5,037,057	35.6%	35.6%	35.6%	35.6%
Operating Expenses	(10,202,072)	(3,429,715)	(3,772,686)	(4,074,501)	-28.8%	-28.8%	-28.8%	-28.8%
Operating Income (EBIT)	2,410,127	810,232	891,256	962,556	6.8%	6.8%	6.8%	6.8%
Interest Income (Expenses)	(54,637)	(18,368)	(20,205)	(21,821)	-0.2%	-0.2%	-0.2%	-0.2%
Other Income (Expenses)	-	-	-	-	0.0%	0.0%	0.0%	0.0%
Pre-Tax Earnings	2,355,490	791,865	871,051	940,735	6.6%	6.6%	6.6%	6.6%
Selected Operating Expense Line Items								
Advertising	138,915	46,700	51,370	55,480	0.4%	0.4%	0.4%	0.4%
Bad Debts	209,209	70,332	77,365	83,554	0.6%	0.6%	0.6%	0.6%
Owner Compensation	902,068	303,256	333,581	360,268	2.5%	2.5%	2.5%	2.5%

Fixed and Variable Cost Technique

[133] The fixed and variable cost technique uses a combination of fixed and variable expenditures to develop a supportable financial forecast. This stands as being the most appropriate model to use in preparing a forecast or financial projection. Why, you ask? Most businesses have certain fixed expenses (or semi-fixed expenses). Other costs are generally variable as sales increase or decrease so do these types of expenses.

[134] Presented is one model or example. Remember the goal, is to forecast until you reach a stable earnings stream growth at a constant rate.

Prospective Financial Forecast of Fixed & Variable on an EBITDA Structure

	Base		Estimated			Forecasted										
	Year		Variable %	Fixed $	Note	FY-1	FY-2	FY-3	FY-4	FY-5	FY-6	FY-7	FY-8	FY-9	FY-10	FY-11
				Sales Growth %		*15.0%*	*10.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*
	Asset & Productivity Percentage (70%-80%)															
Gross Sales	100.0	416,951				479,494	527,443	553,815	581,506	610,581	641,110	673,166	706,824	742,165	779,274	818,237
Operating Expenses	(71.4)	(297,555)				(375,135)	(383,923)	(402,075)	(443,127)	(469,434)	(497,379)	(521,774)	(553,669)	(582,557)	(614,186)	(648,964)
Operating EBITDA	28.6	119,396				104,359	143,520	151,740	138,379	141,147	143,732	151,392	153,155	159,608	165,087	169,273
Selected Line Items					*EBITDA Growth*	*27.3%*	*5.4%*	*-9.7%*	*2.0%*	*1.8%*	*5.1%*	*1.2%*	*4.0%*	*3.3%*	*2.5%*	
Advertising	8.7	36,346	2.0%			15,000	10,549	11,076	11,630	12,212	12,822	13,463	14,136	14,843	15,585	16,365
Owner Compensation	-	-	18.0%		1	86,309	94,940	99,687	104,671	109,905	115,400	121,170	127,228	133,590	140,269	147,283
Rent	12.5	52,000		60,960	2	60,960	62,179	63,423	64,691	65,985	67,305	68,651	70,024	71,424	72,853	74,310
Repairs/Maintenance	0.2	933	1.0%			4,795	5,274	5,538	5,815	6,106	6,411	6,732	7,068	7,422	7,793	8,182
Office Salaries	24.5	102,240		102,240	3	108,953	105,040	110,714	137,040	149,133	162,131	171,199	186,532	198,366	211,983	227,721
Payroll Taxes	2.0	8,199	0.8%		4	8,716	8,403	8,857	10,963	11,931	12,970	13,696	14,923	15,869	16,959	18,218
Travel/Meals/Entertainment	2.0	8,302	0.5%			2,397	2,637	2,769	2,908	3,053	3,206	3,366	3,534	3,711	3,896	4,091
Insurance	2.0	8,486		8,500	5	8,500	8,925	9,371	9,840	10,332	10,848	11,391	11,960	12,558	13,186	13,846
Utilities	2.0	8,435		8,500	6	8,500	9,180	9,914	10,708	11,564	12,489	13,488	14,568	15,733	16,992	18,351
Telephone	0.8	3,400		2,700	7	2,700	2,835	2,977	3,126	3,282	3,446	3,618	3,799	3,989	4,189	4,398
Professional Supplies	7.6	31,827	7.0%			33,565	36,921	38,767	40,705	42,741	44,878	47,122	49,478	51,952	54,549	57,277
Office Expenses	2.6	10,845	2.0%			9,590	10,549	11,076	11,630	12,212	12,822	13,463	14,136	14,843	15,585	16,365
Legal & Professional Fees	1.8	7,693		5,500	8	5,500	5,775	6,064	6,367	6,685	7,020	7,371	7,739	8,126	8,532	8,959
Vehicle Gas/Oil/Repairs	0.4	1,650		1,650	9	1,650	1,815	1,997	2,196	2,416	2,657	2,923	3,215	3,537	3,891	4,280
Misc	4.1	17,199		18,000	10	18,000	18,900	19,845	20,837	21,879	22,973	24,122	25,328	26,594	27,924	29,320
Total Expenses	100.0	297,555				375,135	383,923	402,075	443,127	469,434	497,379	521,774	553,669	582,557	614,186	648,964

Office Salaries		FY-1	FY-2	FY-3	FY-4	FY-5	FY-6	FY-7	FY-8	FY-9	FY-10	FY-11
Kathy	38,000	38,000	39,140	40,314	41,524	42,769	44,052	45,374	46,735	48,137	49,581	51,069
Marsha	31,600	31,600	32,548	33,524	34,530	35,566	36,633	37,732	38,864	40,030	41,231	42,468
Jodie (1 day/wk)	11,640	11,640	13,968	16,762	20,114	24,137	28,964	34,757	41,708	50,050	60,060	72,072
Additional Employee for each $120k		-	-	-	20,000	25,000	30,000	30,000	35,000	35,000	35,000	35,000
Bonus (10%) - EBITDA earnings w/cost estimated to be approx. 1.4% of gross sales		6,713	7,384	7,753	8,141	8,548	8,976	9,424	9,896	10,390	10,910	11,455
Barb	21,000	21,000	12,000	12,360	12,731	13,113	13,506	13,911	14,329	14,758	15,201	15,657
Office Salaries Total	102,240	108,953	105,040	110,714	137,040	149,133	162,131	171,199	186,532	198,366	211,983	227,721
	as % of Sales	*22.7%*	*19.9%*	*20.0%*	*23.6%*	*24.4%*	*25.3%*	*25.4%*	*26.4%*	*26.7%*	*27.2%*	*27.8%*

[1] Doctor's compensation average 25% - 30% production (calculated @ 70% of gross sales x 25%)
[2] FMV rent @ arm's length w/ a 2% rate increase
[3] Part-time assistant moving towards full-time as sales increase - Kathy replacement salary figure @ $38k - Salaries adjusted @ 3% annually
[4] Payroll taxes 8% of office salaries
[5] Fixed plus a 5% annual factor
[6] Fixed plus 8% annual factor
[7] Fixed plus 5% annual factor
[8] Fixed plus 5% annual factor
[9] Mileage calculated at 250 mi/mo @ .55 equals $1650/yr (plus 10% annual factor
[10] Fixed plus 5% annual factor

Most Likely, Best-Case or Worst-Case Scenario Technique

[135] The most likely, best-case or worst-case scenario technique illustrates three scenarios to allow the reader to follow the appraiser's logic as to why one scenario was favored more than another. The following table presents data on the far-right column showing the three selected "percentage" scenarios (i.e., most likely, best-case and worst-case scenarios). The forecasted uses information selected from one of these three scenarios. Sales is used as the base or starting point from which, all calculations are performed.

Notice forecasted sales are projected to decrease as compared to actual events in Years 1 and 2.

	Actual and Estimated Amounts						Percentage Scenarios		
	Actual Year 1		Actual Year 2		Forecasted Year		Most Likely	Best Case	Worst Case
Sales	163,337	100.0%	155,067	100.0%	136,602	100.0%	100.0	100.0	100.0
Cost of Sales	20,256	12.4%	19,614	12.6%	17,212	12.6%	11.0	7.00	12.6
Gross Profit	143,081	87.6%	135,453	87.4%	119,390	87.4%	89.0	93.0	87.4
Operating Expenses									
Owner's Compensation	50,078	35.0%	47,409	35.0%	42,347	31.0%	28.0	31.0	35.0
Insurance	1,000	0.6%	1,000	0.6%	956	0.7%	0.6	0.6	0.7
Telephone	2,862	1.8%	2,948	1.9%	1,776	1.3%	1.7	1.3	1.9
General & Other	4,900	3.0%	4,652	3.0%	4,098	3.0%	3.0	3.0	3.0
Depreciation	5,553	3.4%	5,272	3.4%	4,371	3.2%	3.2	3.0	3.4
Rent	24,130	14.8%	24,876	18.4%	17,758	13.0%	15.4	13.0	18.4
Administrative Wage Total	31,975	19.6%	36,623	23.6%	18,441	13.5%	18.9	13.5	23.6
Total Operating Expenses	120,499	73.8%	122,780	79.2%	89,748	65.7%	70.8	65.4	86.0
Pre-Tax Earnings	22,582	13.8%	12,673	8.2%	29,643	21.7%	18.2	27.6	1.4

Historical Weighting Technique

[136] The historical weighting technique develops an earnings stream based on past performance of the company. After making normalized adjustments to each of the historical years a weighting is used as a measure of confidence the appraiser has those certain events, which have occurred in the past, might reasonably be expected to occur in the future.

[137] The application of weights is applied not so much in terms of mathematics, but to allow the reader to understand the appraiser's logic for a given period or periods. With weights in excess of one - the appraiser is expressing more confidence in a given period over the other periods analyzed.

After making normalized adjustments and applying appropriate weights to the five-year period analyzed, the weighted normalized net income is divided by the total aggregate weights producing net operating income. The long-term growth rate is applied to this figure resulting in projected normalized net income.

Cash flow adjustments are then applied to the forecasted net income to arrive at net cash flow.

Caution should be exercised, as this technique represents available earnings on an ongoing basis. Assumptions employed are growth in earnings will occur on a constant and steady rate on a forward-looking basis.

[138] Example of historical weighting technique:

Weighted Historical Net Cash Flow Available to Equity					
	20X1	20X2	20X3	20X4	20X5
Months of Operation in Year	12	12	12	12	12
Year-over-Year Growth Rate		*-2.0%*	*16.6%*	*18.2%*	*36.8%*
Gross Sales	5,604,510	5,491,867	6,405,217	7,571,754	10,357,446
Cost of Goods	(3,763,719)	(3,763,719)	(3,763,719)	(4,763,719)	(6,763,719)
Gross Profit	1,840,791	1,728,148	2,641,498	2,808,035	3,593,727
Operating Expenses	(1,814,415)	(1,692,375)	(1,847,767)	(1,898,279)	(2,949,236)
Operating Earnings (EBIT)	26,376	35,773	793,731	909,756	644,491
Interest Income (Expenses)	(12,578)	(10,589)	(9,524)	(10,257)	(11,689)
Other Income (Expenses)	-	-	-	-	-
Pre-Tax Earnings	13,798	25,184	784,207	899,499	632,802
Pre-Tax Earnings % of Sales	*0.2%*	*0.5%*	*12.2%*	*11.9%*	*6.1%*
Normalized Adjustments to Historical Years					
Non-Recurring Expenses	31,896	22,568	178,921	-	-
Legal & Professional Fees	-	-	-	36,415	-
Personal Use of Business Assets	15,267	11,456	19,875	16,521	10,258
Compensation Adjustment	(26,987)	(15,578)	(8,951)	(16,874)	(32,574)
Total Normalized Pre-Tax Earnings	33,974	43,630	974,052	935,561	610,486
Pre-Tax Earnings % of Sales	*0.6%*	*0.8%*	*15.2%*	*12.4%*	*5.9%*
Less: Effective Income Taxes (28%)	(9,513)	(12,216)	(272,735)	(261,957)	(170,936)
Normalized Net Income	24,461	31,414	701,318	673,604	439,550
Weighting	-	-	1	2	3
Weighted Normalized Net Income	-	-	701,318	1,347,208	1,318,650
Aggregate Weighted Normalized Net Income					3,367,176
Divided by Total Weighting					6
Weighted Average Normalized Net Income					561,196
Long-Term Earnings Growth Rate					1.05
Forecasted Net Income					589,256
Cash Flow Adjustments					
Non-Cash Expenditures (depreciation & amortization), based upon actual historical charges					22,987
Capital Expenditures, based on actual historical levels					(26,487)
Changes in Long-Term Debt (+/-), for next year					-
Changes in Working Capital (+/-). based upon future expectations					(12,697)
Net Cash Flow to Equity					573,059

Probability Weighted Expected Earnings Model

[139] The first step in this model is to select the number of years to forecast and present the information in a tabular form.

Summary of Probability Weighted Expected Earnings					
	F1	F2	F3	F4	F5
Sales	$5,612,340	$6,454,191	$7,422,320	$8,535,668	$9,816,018
Cost of Goods	(3,086,787)	(3,549,805)	(3,340,044)	(4,694,617)	(5,398,810)
Gross Profit	2,525,553	2,904,386	4,082,276	3,841,050	4,417,208
Operating Expenses	(1,995,187)	(2,294,465)	(3,224,998)	(3,034,430)	(3,489,594)
Projected Earnings	530,366	609,921	857,278	806,621	927,614

[140] The next step is to assign a "probability of occurrence" percentage to each year of the forecasted earnings. You are trying to answer the question, what is the probability of the company achieving the forecasted earnings in that given period (see following table)? Notice the F1 growth rate in earnings is driven from the Company's normalized most recent year.

Probability Weighted Expected Earnings Stream				
Normalized	*697,430*	*Company's Normalized Earnings Stream*		
Year	Projected Earnings	*Growth Rate %*	Probability of Occurrence	Probability Weighted Earnings
F1	530,366	*-24.0%*	30.0%	159,110
F2	609,921	*15.0%*	35.0%	213,472
F3	857,278	*40.6%*	15.0%	128,592
F4	806,621	*-5.9%*	15.0%	120,993
F5	927,614	*15.0%*	5.0%	46,381
			100.0%	668,548

Balance Sheet Projections

[141] Why would you need to forecast the balance sheet? If management provided the forecasted balance sheet (most likely not), are their projections reasonable for debt service, future capital expenditures and working capital requirements?

[142] An example of a forecasted balance sheet is presented on the following page.

Forecasted Balance Sheet

	Normalized	*Forecasted*				*% Driven from Sales in Forecasted*		
	20X1	20F2	20F3	20F4		20F2	20F3	20F4
Months of Operation in Year	*12*	*12*	*12*	*12*		*12*	*12*	*12*
Assets					Sales	$10,357,446	$11,393,191	$11,962,850
Cash	25,000	27,500	28,875	31,185		0.002	0.002	0.002
Receivables	1,496,246	1,481,115	1,495,356	1,614,985		0.144	0.130	0.125
Inventory	683,168	751,485	789,059	852,184		0.066	0.066	0.066
Other	50,886	55,975	58,773	63,475		0.005	0.005	0.005
Total Current Assets	2,255,300	2,316,074	2,372,064	2,561,829		0.218	0.203	0.198
Total FF&E Assets	265,000	291,500	306,075	330,561		0.026	0.026	0.026
Total Accum Depreciation	(74,476)	(81,924)	(86,020)	(92,902)		(0.007)	(0.007)	(0.007)
Net FF&E Assets	190,524	209,576	220,055	237,659		0.018	0.018	0.019
Intangible Assets (net)	-	-	-	-		-	-	-
Other	-	-	-	-		-	-	-
Total Assets	2,445,824	2,525,650	2,592,119	2,799,488		0.236	0.222	0.217
Liabilities & Equity								
Short-Term Debt	135,000	136,718	119,629	129,199		0.013	0.012	0.010
Payables	887,718	976,490	1,025,314	1,107,339		0.086	0.086	0.086
Other	278,571	227,864	179,443	193,798		0.027	0.020	0.015
Total Current Liabilities	1,301,289	1,341,072	1,324,386	1,430,336		0.126	0.126	0.126
Long-Term Debt	18,000	19,800	20,790	22,453		0.002	0.002	0.002
Loans from Shareholders	16,743	-	-	-		-	-	-
Other	3,550	3,905	4,100	4,428		0.000	0.000	0.000
Total Long-Term Liabilities	38,293	23,705	24,890	26,881		0.004	0.004	0.004
Total Liabilities	1,339,582	1,364,777	1,349,276	1,457,218		0.129	0.129	0.129
Total Equity/Capital (Net Worth)	1,106,242	1,165,986	1,250,510	1,324,891		0.113	0.110	0.111

Internal Consistency

[143] After preparing the financial forecast, the appraiser should analyze the financial statements (income and balance sheet). The forecasted financial statements should be evaluated in the same manner as the historical financial statements were analyzed.

The appraiser should answer these basic questions.

- Are the overall financial results consistent with the selected forecasted scenario?
- Are the forecasted financial ratios consistent with sales and earnings growth? If not, why?
- Is the return on capital consistent with industry rates?
- Does the company have the borrowing capacity to support the forecasted changes?
- Are private capital funds available to the company to support the forecasted changes?
- Does the forecast include the necessary resources to manage the forecasted changes?

Final Forecasting Comments

[144] Forecasting is an art. The selection of a forecasting technique or model depends on many factors. Such as:

- Context of the forecast
- Relevance of the information
- Availability of historical data
- Degree of acceptable accuracy
- Time period to be forecast
- Benefit versus time available

[145] A common objection, to much long-range forecasting is that it is virtually impossible to predict with accuracy what will happen several years into the future. The appraiser will need to scrutinize the inputs. Uncertainty increases when a forecast is made for a period more than two years out. Unfortunately, most forecasting models use a smoothing average technique.

Exercise:

[146] Use the following case study information (see following tables) to arrive at an indication of value. ABC Manufacturing is a small manufacturer of playground equipment. The Company's main customers are schools and community parks.

The owner would like to transfer the business to his son. The following income statement information was provided by management's accountant. Your conversations with the owner revealed future capital expenditures will be estimated at F-1 $10,000; F-2 $8,000; and F-3 $6,500.

The Company historically hasn't had any interest-bearing debt and the owner will pay for capital expenditures from the forecasted cash flows. Changes in net working capital are provided. The blended federal and state tax rate is calculated at 38.0%.

Forecasted Income Statement			
	F-1	F-2	F-3
Gross Sales	1,091,025	1,173,264	1,276,984
Cost of Goods	(342,599)	(356,734)	(366,995)
Gross Profit	748,426	816,530	909,989
Operating Expenses	(492,687)	(567,247)	(554,810)
Operating Earnings (EBIT)	255,739	249,283	355,179
Interest Income (Expenses)	-	-	-
Forecasted Pre-Tax Earnings	255,739	249,283	355,179
Converting Net Income into Net Cash Flow			
Less: Blended Income Tax Rate (38%)			
Add: Non-Cash Charges	8,954	7,562	5,981
Less: Capital Expenditures			
Changes in Long-Term Debt			
Changes in Net Working Capital	(1,652)	(1,821)	(1,982)
Equals: Net Cash Flow available to Equity Earnings Stream			

The Company's rate of return is estimated by using a risk-free rate of 2.6%; equity risk premium of 6.7%; size premium of 6.6%; and a company-specific risk premium of 3.0%. The Company's long-term sustainable growth rate for earnings was estimated at 3.0%.

Risk-Free Rate	
Equity Risk Premium	
CRSP Decile Size Premium	
Company-Specific Risk Adjustment	
Net Cash Flow Discount Rate	
Less: L-T Earnings Growth Rate	
Net Cash Flow Capitalization Rate	

Using the year-end discounted future earnings method, what is the value of ABC Manufacturing?

Discounted Cash Flow Method				
Selected Year	Projected Net Cash Flow	Present Value Factor	Capitalization Rate	Present Value
F-1				
F-2				
F-3				
L-T Rate				
Terminal Year				
Indication of Equity Value on a Controlled, Closely Held Basis				

[147a 148b 149c] Solutions

Converting Rates of Return

[150] Converting net cash flow rate of return to alternative earnings streams. There are two critical assumptions implied when using this technique to convert rates of return. First, net cash flow and the alternative earnings stream is assuming a constant relationship over time. Second, net cash flow and the alternative earnings stream is assumed to grow at the same annual compound rate over time. The recommendation is to always use net cash flow as the primary earnings stream. (see VAB6 pgs. 253-255)

	Earnings Stream	Ratio to NCF	NCF Cap Rate	Adjusted Cap Rate	Indicated Value
Pre-Tax Earnings	$484,478	173%	18.0%	31.2%	$ 1,555,106
Net Income	$329,445	118%	18.0%	21.2%	$ 1,555,106
Net Cash Flow	$279,919	100%	18.0%	18.0%	$ 1,555,106

Lesson 10: Introduction to the Market Approach

[152] The market approach includes an assortment of methods which uses transactional information from the market. The general idea is *if* one can find sufficient information regarding transactions, whether it be public companies (bought or sold on a public exchange) or private company transactions. Transactional market information can be found involving either minority or controlling interest. (see VAB6 Chapters 13 and 14 pgs. 283-342)

[153] Conceptually speaking, information should be for equally desirable substitute (i.e., similar investments). Equally desirable does not mean identical. It means equally desirable from an ownership or investment standpoint. Market transactional data can be considered a sampling of the marketplace from the investor's viewpoint.

Market Based Methods

[154] Methods generally utilized under this approach are:

- Guideline public company method
- Guideline transaction method
- Prior sales transaction method
- Buy-sell agreements
- Prior offers
- Industry "Rule of Thumb" method

The guideline public company method examines the prices paid for interest in publicly traded companies that are engaged in a similar line of business, as the Subject company.

The guideline transaction method identifies actual prices investors have paid for controlling interests in closely held companies in the same or similar line of business as the Subject company.

Finding Comparable Transactions

[155] Although the only restrictive requirement as to comparable corporations specified in RR 59-60 is that their lines of business be the same or similar. Consideration must be given to other relevant factors to ensure the most valid comparison possible will be obtained. To be comparable, the transaction should:

- Be similar in terms of quantitative and qualitative investment characteristics
- Have occurred under the same premise of value and standard of value, per the valuation assignment
- Have sufficient amount of data that can be verified

- Having transacted on an arm's length basis

[156] The selection of companies is based on an analysis of the entity being valued. An example of selection criteria includes:

- Product line similarity (i.e., by NAICS code or SIC code)
- Revenue size
- Financial performance (i.e., profitability, capital structure)
- Markets (compete within and/or sell to)
- Sales per employee
- Nature of competition
- Dividend-paying capacity

[157] The primary data sources for ***public market data*** include:

- Securities and Exchange Commission (EDGAR)

  10-K annual report   10-Q quarterly report   8-K special events
- Websites (e.g., Yahoo! Finance)
- Data bases (e.g., American Association of Individual Investors - Stock Investor Pro)
- Guideline Public Company Comps Tool (BVR)
- Mergerstat
- PitchBook
- DealStats
- Done Deals

The primary data sources for ***private market data*** include:

- DealStats
- BizComps
- Done Deals
- ValuSource Market Comps
- PeerComps
- Proprietary Databases (e. g., local business brokers organizations)

Guideline Public Company Method

[158] Because of the very nature of most publicly traded companies used in this method, frequently this method is only useful when valuing mid-size to large closely held companies.

Primary limitations in the use of this method are: (i) it is time consuming, (ii) sometimes hard to find true guideline companies, and (iii) difficult to support transferring non-control interests on an as-if freely traded basis into a control, closely held basis (non-marketable) basis.

The guideline public company method is more labor intense as reviewing public companies' 10k's and other documents for actual compatibility is very time consuming.

In this method the appraiser would consider issues such as: quality of management, past earnings (i.e., growth), industry in which it competes, business structure model, etc.

[159] A word of caution. Some professionals have the opinion there are major differences between public companies and closely held companies. The main point is these types of companies would never be sufficiently similar to use in the market approach. This results in those professionals never utilizing the guideline public company method, mainly due to these significant differences. There are professionals who are at the opposite end of the spectrum. Basically, it comes down to each professional deciding the merits or acceptability of using the guideline public company method.

[160] Below is an illustration of one model to use in identifying those guideline companies to be accepted or rejected during the initial search process.

Guideline Companies Identified

Company Name	*Accepted*	*Rejected*	*Rejected Comments*
Sunoco (A Plus Convenience Stores)		X	*25 retail locations representing less than 3% of overall revenues*
7 Eleven, Inc		X	*Converted to Privately Held - no recent public market data available*
Casey's General Stores, Inc.	X		*Company is a product reseller and not a mfg.*
The Pantry, Inc	X		
Kwik Trip, Inc.		X	*Privately Held*
QuikTrip Corporation		X	*Privately Held*
Susser Holdings Corporation	X		
Valero Energy Corporation		X	*Heavily into petroleum refining and marketing*
Alimentation Couche-Tard, Inc.	X		
Flying J, Inc		X	*Privately Held*
RaceTrac Petroleum, Inc.		X	*Privately Held*
Speedway SuperAmerica, LLC		X	*Privately Held*
TravelCenters of America, Inc.		X	*Privately Held*

An essential step in the use of the guideline company method is a comparative analysis of the selected public companies with the Subject Company. The basic financial documents used in a review of financial performance generally include the balance sheet and income statements. (see VAB6 pg. 323)

[161] Comparables could be: (i) average sales per store; (ii) cost of goods sold percentages; (iii) gross profit percentages; (iv) depreciation expenses percentages; (v) net income percentages; and (vi) EBITDA percentages.

Guideline Public Company Selected Financial Information

Name	The Pantry, Inc.		Casey's General Store		Alimentation Couche-Tard		Susser Holding Corp		Company	
Stock Symbol	PTRY		CASY		ANCUF		SUSS			
Number of Stores	1,638		1,531		5,878		525			
Avg Sales Per Store	$ 4,435,447		$ 3,028,796		$ 2,796,802		$ 7,486,914		$8,987,775	
Stock Price (as of Dec 22, 20X1)	$ 19.78		$ 42.97		$ 26.50		$ 13.04			
Common Shares Outstanding	22,194,000		50,899,000		53,706,712		17,018,032			
Market Capitalization - Equity	$ 438,997,320		$ 2,187,130,030		$ 1,423,227,868		$ 221,915,137			
Add: Interest Bearing Debt	759,341,000		179,331,000		741,200,000		431,306,000			
Market Value of Invested Capital	$ 1,198,338,320		$ 2,366,461,030		$ 2,164,427,868		$ 653,221,137			
									Normalized	
Date of Financial Statements	9/30/20X0		4/30/20X0		4/25/20X0		1/2/20X1		11-31-20X0	
		%		%		%		%		%
Total Revenue	7,265,262,000	*100.0*	4,637,087,000	*100.0*	16,439,600,000	*100.0*	3,930,630,000	*100.0*	8,987,775	*100.0*
Cost of Revenue	6,393,113,000	*88.0*	3,844,735,000	*82.9*	13,886,300,000	*84.5*	3,457,528,000	*88.0*	7,826,475	*87.1*
Gross Profit	872,149,000	*12.0*	792,352,000	*17.1*	2,553,300,000	*15.5*	473,102,000	*12.0*	1,161,300	*12.9*
Operating Expenses	665,554,000	*9.2*	707,873,000	*15.3*	2,318,900,000	*14.1*	365,065,000	*9.3*	864,001	*9.6*
Depreciation & Amortization	120,605,000	*1.7*	73,546,000	*1.6*	204,500,000	*1.2*	43,998,000	*1.1*	78,237	*0.9*
Interest, net	85,990,000	*1.2*	10,933,000	*0.2*	29,900,000	*0.2*	64,039,000	*1.6*	-	-
Income Before Tax (EBT)	(236,883,000)	*(3.3)*	181,582,000	*3.9*	412,200,000	*2.5*	5,783,000	*0.1*	219,062	*2.4*
Add: Interest Expense	85,990,000	*1.2*	10,933,000	*0.2*	29,900,000	*0.2*	64,039,000	*1.6*	-	-
Add: Depreciation & Amortization	120,605,000	*1.7*	73,546,000	*1.6*	204,500,000	*1.2*	43,998,000	*1.1*	78,237	*0.9*
EBITDA	(30,288,000)	*(0.4)*	266,061,000	*5.7*	646,600,000	*3.9*	113,820,000	*2.9*	297,299	*3.3*
Balance Sheet *(selected line items)*		%		%		%		%		%
Cash & Cash Equivalents	200,637,000	*10.6*	151,676,000	*10.9*	220,900,000	*6.0*	47,943,000	*5.2*	269,252	*48.9*
Receivables	92,118,000	*4.9*	12,111,000	*0.9*	286,200,000	*7.7*	60,356,000	*6.6*	17,303	*3.1*
Inventory	130,949,000	*6.9*	124,951,000	*9.0*	474,100,000	*12.8*	84,140,000	*9.2*	107,186	*19.4*
Total Current Assets	457,020,000	*24.1*	310,263,000	*22.3*	1,031,000,000	*27.9*	209,956,000	*23.0*	439,821	*79.8*
Property & Equipment										
Land	338,930,000	*17.9*	297,833,000	*21.4*	571,300,000	*15.5*	128,071,000	*14.0*	-	-
Building & Leasehold Improvement	582,613,000	*30.7*	621,882,000	*44.8*	943,700,000	*25.5*	235,588,000	*25.8*	-	-
Machinery & Equipment	793,370,000	*41.8*	784,341,000	*56.5*	1,407,400,000	*38.1*	190,324,000	*20.8*	337,011	*61.1*
Recorded Total Fixed Assets	1,756,884,000	*92.6*	1,704,056,000	*122.7*	2,967,800,000	*80.3*	564,872,000	*61.8*	379,545	*68.9*
Less Accum Depreciation & Amort.	751,732,000	*39.6*	706,994,000	*50.9*	987,300,000	*26.7*	155,719,000	*17.0*	268,186	*48.7*
Net Fixed Assets	1,005,152,000	*53.0*	1,010,911,000	*72.8*	1,980,500,000	*53.6*	409,153,000	*44.7*	111,359	*20.2*
Total Assets	1,896,450,000	*100.0*	1,388,775,000	*100.0*	3,696,700,000	*100.0*	914,339,000	*100.0*	551,180	*100.0*
Liabilities										
Current Maturities Long Term Debt	6,321,000	*0.3*	24,577,000	*1.8*	4,400,000	*0.1*	550,000	*0.1*	-	-
Total Current Liabilities	271,734,000	*14.3*	240,886,000	*17.3*	882,900,000	*23.9*	178,405,000	*19.5*	145,438	*26.4*
Long-Term Debt (net of current portion)	753,020,000	*39.7*	154,754,000	*11.1*	736,800,000	*19.9*	430,756,000	*47.1*	-	-
Total Liabilities	1,316,607,000	*69.4*	564,456,000	*40.6*	2,082,400,000	*56.3*	699,776,000	*76.5*	145,438	*26.4*
Total Shareholders' Equity	308,109,000	*16.2*	824,319,000	*59.4*	1,614,300,000	*43.7*	214,563,000	*23.5*	405,742	*73.6*

When using the market approach, there are two basic categories of market value multiples: (i) common equity multiples and; (ii) invested capital multiples. (see VAB6 pg. 319)

- Equity is defined as: “The owner’s interest in property after deductions of all liabilities.”
- Invested capital is defined as: “The sum of equity and debt in a business enterprise. Debt is typically: (a) all interest-bearing debt, or (b) long-term interest-bearing debt. When the term is used, it should be supplemented by a specific definition in the given valuation context.”

Multiples discussed below are equally applicable to the guideline public company, merger and acquisition, and the guideline (private) transactional methods.

[162] Commonly used common equity multiples are the following:

- Price/sales
- Price/gross cash flow
- Price/earnings before tax
- Price/book value
- Price/dividends

[163] ***Example***: Assume:

Sales = $10,000,000

Number of shares = 500,000

Exchange traded price = $10.00 per share

Where: Sales per share = Sales ÷ number of shares

Price/sales multiple = Exchange traded price ÷ sales price per share

Then: Sales per share = $10,000,000 ÷ 500,000 = $20.00

Price/Sales Multiple = $10.00 ÷ $20.00 = 0.50

[164] Commonly used invested capital ("debt-free") multiples are the following:

- MVIC/sales
- MVIC/EBITDA
- MVIC/EBIT
- MVIC/net tangible asset value

Remember: Because MVIC can be calculated in different ways (i.e., (i) only long-term debt or (ii) all interest-bearing debt or (iii) to deduct cash and cash equivalents) the appraiser must define MVIC in each report.

[165] ***Example***: Assume:

Market value of invested capital = $12,000,000

Sales = $10,000,000

Then: Sales/MVIC = $10,000,000 ÷ $12,000,000 = 0.83

[166] Presented in the following table is the tabulation of the market valuation multiples.

Guideline Public Company - Valuation Multiples						
	MVIC/ Revenue	MVIC/ Gross Profit	MVIC/ Pre-Tax Income	MVIC/ EBIT	MVIC/ EBITDA	MVIC/ Total Assets
Size Adjustment to Multiples	*-4.7%*	*-4.7%*	*-4.7%*	*-4.7%*	*-4.7%*	*-4.7%*
The Pantry, Inc.	0.157	1.309	(4.819)	(8.337)	(37.690)	0.602
Casey's General Store	0.486	2.845	12.415	12.904	8.473	1.623
Alimentation Couche-Tard	0.125	0.808	5.002	5.139	3.189	0.558
Susser Holding Corp	0.158	1.315	107.603	9.821	5.467	0.681
Mean	0.232	1.569	30.050	4.882	(5.140)	0.866
Median	0.158	1.312	8.708	7.480	4.328	0.641
Standard Deviation	0.170	0.883	52.181	9.373	21.807	0.507
Coefficient of Variation	0.735	0.563	1.736	1.920	(4.242)	0.586

The choice of how much weight to assign a selected valuation multiple or multiples is a function of the appraiser's judgment. Consideration should be given to the dispersion of the valuation multiples when selecting an appropriate weight to be assigned. The main point here is you must support the selection of weights applied – do not just assign weights without a discussion of why a particular financial measurement received more weight than another.

Another consideration is whether there is comparability between the data.

[167] An example would be if five of the six guideline companies have upward trend for earnings and one has negative earnings, the appraiser might decide whether to give any weight to the selected guideline company's financial measurement.

Guideline Public Company Method					
	Market Value of Invested Capital				
	Revenue	*Gross Profit*	*EBIT*	*EBITDA*	*Total Assets*
Financial Measurements	$8,987,775	$ 1,161,300	$ 219,062	$ 297,299	$ 551,180
Selected Valuation Multiple	0.220	1.466	4.896	3.347	2.552
Initial Indicated Value	1,976,600	1,702,041	1,072,481	995,178	1,406,423
Confidence Weight	15%	20%	30%	30%	5%
Weighted Value	296,490	340,408	321,744	298,553	70,321
Aggregate Weighted "Invested Capital" Value on a Freely Traded Basis					1,327,517
Minus: Liabilities					(145,438)
Indicated Fair Market Value of "Equity" on a Freely Traded Basis					1,182,079

Matching Time Periods to Measured Market Multiples

[168] When developing market multiples, it is critical to use data for the guideline public companies from a period as close to the same as the Subject company as possible. Possible periods for comparison include: the most recent fiscal year, the latest 12 months, the last 12 trailing months, the average of a number of past years, or the weighted average of a number of past years.

Relationship between Market Multiples and Capitalization Rates

[169] Market multiples are the inverse of capitalization rates. For example, if the P/E ratio is 15 - the equivalent capitalization rate is 6.67% (100 / 15).

Adjustments to the Financials

[170] Frequently, financial statements need to be adjusted for differences between the guideline public company and the Subject. For discussion purposes, possible adjustments may include:

- GAAP adjustments
- Nonrecurring items

Examples of GAAP adjustments include:

- Inventory of the guideline company may be priced on a LIFO basis, while the Company is priced using FIFO.
- Depreciation of the guideline company may be based on accelerated depreciation while the Company is based on straight-line depreciation (or vice versa).
- New accounting rules may have been applied by the guideline company, but not by the Company.

Information for each of these adjustments can generally be found in the 10K *(notes to the financial statements)*. If adjustments have been made to the company for nonoperating assets or excess assets, it may be necessary to consider the same adjustments for the guideline companies to ensure consistency for comparison purposes.

Guideline Transaction Method

[171] The *Guideline Transaction Method* sometimes referred to as the*, Merger & Acquisition Method* uses pricing multiples derived from transactions of similar characteristics. In this method, closely related *(example: business model*[13]*)* transactions are used to estimate value. (see VAB6 pgs. 326-334)

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[13] Business model refers to: line of business, stage in a business' life cycle, size both in sales and financial structure, etc.

These transactions should be similar to the Company in many aspects, otherwise adjustments to the valuation multiple(s) must be considered.

Based on the comparative company's financial statements, the appraiser usually computes valuation multiples for each comparative transaction. The calculated valuation multiple may be adjusted for unique aspects of the Subject Company. To aid in the analysis, the following descriptive information is frequently provided:

- Range of data
- Central Tendency (mean or median)
- Standard deviation (variability)
- Coefficient of variation (dispersion)

The central tendency is generally considered the mean or median of an array of numbers. The mean is the "average" of a data set, while the median is the number that falls in the middle of the data set.

Mean
100
200
300
400
500
1,500
5
300

Median	
100	
200	
300	⬅
400	
500	

The standard deviation is a measure of the dispersion of the data set from its mean. The more dispersion (spread) from the mean, the higher the standard deviation.

The coefficient of variation is the standard deviation divided by the mean. This ratio provides an indication as to the degree of dispersion exhibited by the data points. The lower the coefficient of variation, the lower the dispersion of data points, and the better the valuation multiple is as an indicator of value.

	100.0
	200.0
	100.0
	200.0
	100.0
Mean	140.0
Std Dev	54.8
CoV	39.1%

[172] An illustration of the range of data, along with the calculation of the mean and median of the five selected “sold” companies is provided below.

Selection of Private Company Valuation Measurements						
SIC Code	*Business Description*	*Guideline*	*Gross Sales*	*Price to MVIC*	*Net Income*	*EBITDA*
		Subject Company	719,895		67,670	124,981
3599	Construction Fire Sprinklers	1	591,023	615,890	67,377	159,986
3599	Commercial Install of Sprinklers	2	774,403	635,891	56,531	124,215
3599	Plumbing HVAC	3	713,954	599,721	36,412	151,696
3599	Fire Sprinklers Installer	4	978,885	574,258	44,050	136,692
3599	Fire Sprinklers Contractor	5	875,757	799,541	19,267	133,023
	Range	Low	591,023	574,258	19,267	124,215
		High	978,885	799,541	67,377	159,986
		Mean	786,804	645,060	44,727	141,122
		Median	774,403	615,890	44,050	136,692

The selection of a valuation ratio or multiple includes: (i) mean (average), (ii) median or (iii) most probable. Revenue Ruling 59-60 states: *“common sense, informed judgment and reasonableness,”* must enter into the process of determining the proper valuation multiple.

Sometimes it is too easy to simply select the mean or median figure without further analyzing the dataset. There are many other statistical tools available to improve your degree of confidence in the data. You are encouraged to expand your knowledge base in this area.

To determine where in the range of market valuation multiples a company would fall into, appraisers will often compare each of the valuation multiples with a selected operating line item (see following tables), in this case percentages of sales were used.

[173] In the first example, the Subject company best fits in between guidelines 1 and 2, based on net income as a percentage of sales.

Private Company Valuation Multiples - Sales			
Transaction	*Gross Sales*	*Net Income % of Sales*	*Sales Valuation Multiple*
Guideline 1	591,023	11.4%	1.04
Company	719,895	9.4%	0.90
Guideline 2	774,403	7.3%	0.82
Guideline 3	713,954	5.1%	0.84
Guideline 4	978,885	4.5%	0.59
Guideline 5	875,757	2.2%	0.91

[174] In the second example, the Subject company best fits in between guidelines 3 and 2, based on EBITDA as a percentage of sales.

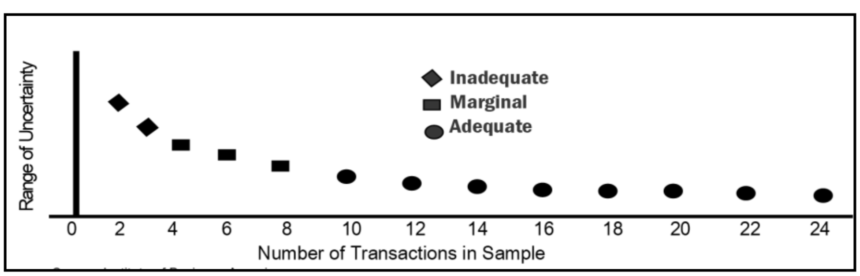
Private Company Multiples - EBITDA			
Transaction	*Gross Sales*	*EBITDA as % Sales*	*EBITDA Valuation Multiple*
Guideline 1	591,023	27.1%	3.8
Guideline 3	713,954	21.2%	4.0
Company	719,895	17.4%	4.2
Guideline 2	774,403	16.0%	5.1
Guideline 5	875,757	15.2%	6.0
Guideline 4	978,885	14.0%	4.2

Direct Market Data Method (transactional method)

[175] The direct market data method was developed by Ray Miles founder of the Institute of Business Appraisers and utilizes sales of controlling interests in closely held companies to provide an indication of value. Information is obtained from actual sales transactions, and is generally provided by business brokerage firms. While the identity of a business is many times unknown, and information is somewhat limited on each transaction, with a sufficient number of transactions, an appraiser can provide objective evidence of what the markets (investors) are willing to pay.

This method involves sampling of the market[14] in order to identify "equally desirable substitutes." Sampling theory tells us that, if we expect to have a reasonable confidence level in the results, we must first have an adequate sample of the total market. It should be noted, research conducted by Raymond C. Miles, concluded that at least 5 or 6 transactions of transactional market data is quite reliable for determining the market's mean or median, but may not be sufficient to determine the market.

[176] As gleaned from the following graph, quantities in excess of 10 greatly enhance the appraiser's ability to determine the market. The market is defined by the range, in which transactions occur. The greater number of transactions improves the knowledge of the market.



[14] Source: Ray Miles founder of The Institute of Business Appraisers.

[177] Advantages of this method:

- It is based on actual transactions between seller and buyer.
- Provides direct market evidence. Remember the appraiser is trying to mirror the market or what could be expected to happen in the marketplace.
- Transactional data is generally for 100% controlling interests.
- Most closely held companies are small to mid-size and the databases utilized generally contain information for companies that have sold in this size range.

[178] Disadvantages of this method:

- Limitation of information for each transaction.
- Dates of the transaction may be older than one would like. Ray Miles has done extensive research into transactions over extended periods and demonstrated that the date of the transaction does not materially affect most industries. The conclusion reached by his research indicated valuation multiples do not appear to be time-sensitive, since inflation affects not only the sales prices, but also the gross and profits of the business.
- Not always known what was included in the transaction. Some appraisers believe inventory is not included. There is not universal agreement that accounts receivables are included in the sale.

[179]

- In some databases the transactions excluded cash, receivables and most liabilities, but this assumption may not always be correct for some industries.
- Not all transactions are for 100% cash. Some have seller financing, which requires adjusting the information to an all-cash equivalent.
- In some cases, a transaction may have unexplained financial results and an appraiser may decide to exclude it from further consideration.

However, despite the aforementioned advantages and disadvantages, the underlying fact remains there is evidence of actual transactions in companies that are more than likely similar to the Subject company, in terms of size, management style, profitability, etc.

Converting Market Data into Valuation Multiples

[180] Converting two measurements into a valuation multiple is accomplished by taking one financial measurement and dividing it by the sold price (see following table).

Example: $1,890,000 sold price / $1,258,794 Sales = 1.5 multiple

Caution must be used not to mix and match databases, mainly because each company (DealStats, BizComps, etc.) gathering sold transactional information compiles data in a slightly different manner. You will need to become aware of these differences – so adjustments to the indication of value can be properly performed.

According to Dr. Shannon Pratt, “because the indicated value is a control value, it normally would not be appropriate to add a control premium. If valuing a controlling interest, a discount for lack of marketability may be appropriate in limited circumstances. There could be significant time and cost that would need to be incurred in order to make the Subject company salable, which could be the support for lack of marketability discount.”

[181] Example of converting data.

Private Transactional Data

Market Transactional Data						as a % of Gross Sales			Market Value of Invested Capital			
SIC Code	Gross Sales	SDE	EBITDA	Assets	Sold Price	SDE	EBITDA	Assets	Price/ Sales Ratio	Price/ SDE Ratio	Price/ EBITDA Ratio	Price/ Asset Ratio
1234	5,900,000	730,000	680,000	1,150,012	2,200,000	12.4%	11.5%	19.5%	0.37	3.01	3.24	1.91
1234	5,300,467	671,198	571,198	694,560	2,266,915	12.7%	10.8%	13.1%	0.43	3.38	3.97	3.26
1234	3,067,599	370,273	380,273	295,460	1,050,000	12.1%	12.4%	9.6%	0.34	2.84	2.76	3.55
1234	2,998,668	488,367	488,367	345,690	1,005,432	16.3%	16.3%	11.5%	0.34	2.06	2.06	2.91
1234	2,758,000	269,874	295,784	488,367	985,741	9.8%	10.7%	17.7%	0.36	3.65	3.33	2.02
1234	2,587,000	378,500	286,000	395,461	789,546	14.6%	11.1%	15.3%	0.31	2.09	2.76	2.00
1234	2,158,000	396,450	235,670	175,896	1,254,698	18.4%	10.9%	8.2%	0.58	3.16	5.32	7.13
1234	1,859,000	475,820	184,000	150,000	1,122,334	25.6%	9.9%	8.1%	0.60	2.36	6.10	7.48
1234	1,758,211	395,462	97,500	195,740	1,233,110	22.5%	5.5%	11.1%	0.70	3.12	12.65	6.30
1234	1,525,780	285,400	115,478	356,900	1,234,560	18.7%	7.6%	23.4%	0.81	4.33	10.69	3.46
1234	1,258,741	525,360	175,420	152,360	1,345,670	41.7%	13.9%	12.1%	1.07	2.56	7.67	8.83
1234	2,998,668	675,000	288,400	315,000	1,456,780	22.5%	9.6%	10.5%	0.49	2.16	5.05	4.62
1234	2,587,960	486,230	248,600	299,000	1,567,890	18.8%	9.6%	11.6%	0.61	3.22	6.31	5.24
1234	2,368,574	512,000	200,078	215,630	1,678,900	21.6%	8.4%	9.1%	0.71	3.28	8.39	7.79
1234	1,897,456	495,623	276,900	110,590	1,789,000	26.1%	14.6%	5.8%	0.94	3.61	6.46	16.18
1234	1,258,794	554,230	215,400	96,235	1,890,000	44.0%	17.1%	7.6%	1.50	3.41	8.77	19.64
1234	1,789,546	513,200	274,561	110,560	1,900,000	28.7%	15.3%	6.2%	1.06	3.70	6.92	17.19
1234	1,656,115	290,456	145,632	214,896	875,000	17.5%	8.8%	13.0%	0.53	3.01	6.01	4.07
1234	1,650,000	326,000	109,450	200,000	915,620	19.8%	6.6%	12.1%	0.55	2.81	8.37	4.58
1234	1,542,619	548,600	129,456	187,560	1,740,000	35.6%	8.4%	12.2%	1.13	3.17	13.44	3.17
Mean	2,446,060	469,402	269,908	307,496	1,415,060	22.0%	11.0%	11.9%	0.67	3.05	6.51	6.57
Median	2,027,728	487,299	242,135	215,263	1,300,184	19.3%	10.8%	11.5%	0.59	3.14	6.20	4.60
	Company's Financial Measurements					*ject's Calculated Percenta*						
	1,758,000	315,478	235,600	258,741		17.9%	13.4%	14.7%				
								Standard Deviation	*0.32*	*0.59*	*3.21*	*5.22*
								STD/Mean equals Coefficient of Variation	*0.48*	*0.19*	*0.49*	*0.79*

Prior Transactions

[182] Prior sales transaction method looks at internal company transactions that have occurred in the past. This method is one of the most reliable methods for valuing a closely held business, if the information is available. This method requires that prior transactions of the Subject's company were made under economic circumstances similar to those on the valuation date and that they were at arm's length.

Buy-Sell Agreements

[183] Buy-sell agreements may specifically state how value is to be determined for the business or interest. A buy-sell agreement is a binding agreement between owners of a business. The agreement generally governs how ownership interests will be handled if an owner chooses to leave the business, dies, or is forced out.

Prior Offers

[184] This method uses prior offers in which interests in the Subject Company's stock were not sold. This method requires:

- That such prior offers be bona fide.
- That the offer had the financial capability to complete the transaction.
- The offer was on an arm's-length basis.
- That there is enough information available to calculate a cash equivalent price and valuation multiples.

Industry Rules of Thumb

[185] The American Society of Appraisers provides guidance in their business valuation standards, which states;

> "Rules of thumb may provide insight into the value of a business, business ownership interest, security or intangible asset. However, value indications derived from the use of rules of thumb should not be given substantial weight unless they are supported by other valuation methods and it can be established that knowledgeable buyers and sellers place substantial reliance on them."

Shannon Pratt in his book titled, "The Market Approach to Valuing Businesses" comments by saying: "…many industries, especially those characterized by very small businesses, have valuation rules of thumb, some more valid than others. If they exist, they should be considered; however, they should never be relied on as the only valuation method used."

As you can imagine, if a rule of thumb was incorrectly used, your final conclusion of value could be seriously inaccurate. (see VAB6 pg. 336)

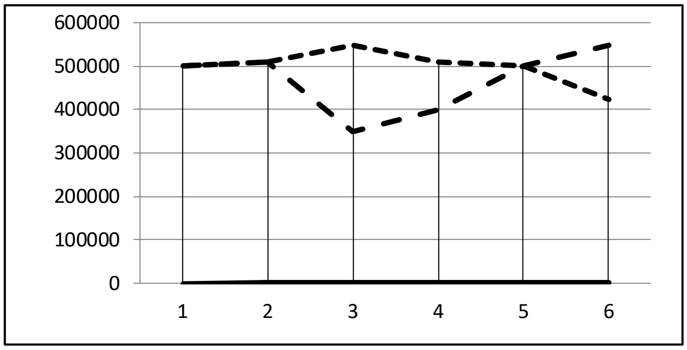
Justification of Purchase Price

The purchase price justification is based on the foundation an investor/buyer using the fair market value (purchase price) should be able to pay for the investment using typical financing with a reasonable down payment. In the following example, if the business was purchased with a down payment of 20% at an interest rate of 6.0% and reasonable compensation, the purchase price should produce a breakeven or show a remaining profit. The table presents three scenarios of 5, 7 and 10 year terms.

PRICE JUSTIFICATION AND PRICING SCENARIOS

PRICE and TERMS	**PRICE & TERMS SCENARIOS**		
Years Financed	**5**	**7**	**10**
Fair Market Value	$1,210,000	$ 1,210,000	$1,210,000
Buyer Down ($)	$ 242,000	$ 242,000	$ 242,000
Buyer Down (%)	20%	20%	20%
Total Interest Bearing Debt Financed	$ 968,000	$ 968,000	$ 968,000
FINANCING TERMS			
Balanced Financed	$ 968,000	$ 968,000	$ 968,000
Interest Rate	6.0%	6.0%	6.0%
Term in Months	60	84	120
Annual Payment	$ 224,570	$ 169,693	$ 128,961
Monthly Payment	$ 18,714	$ 14,141	$ 10,747
JUSTIFICATION OF PURCHASE			
SDCF (seller's projection)	$ 470,000	$ 470,000	$ 470,000
Less: Annual Principal & Interest	$ (224,570)	$ (169,693)	$ (128,961)
Less Debt Service Cushion (.25)	$ (56,142)	$ (42,423)	$ (32,240)
Less: Capital Expenditures & Working Capital	$ (50,000)	$ (50,000)	$ (50,000)
Less: Reasonable Salary for Next Owner	$ (120,000)	$ (75,000)	$ (75,000)
Remaining Earnings	$ 19,288	$ 132,884	$ 183,798
Cash on Cash Return	8.0%	54.9%	75.9%
Return on Fair Market Value	1.6%	11.0%	15.2%

[186] In the following chart, assuming for a moment that years 1 through 5 are historical financial data points and year 6 is the financial forecast, where would you apply the market multiple?



Exercise:

[187] Your assignment is to value a 100% interest in ABC Physical Therapy Clinic using the information on the following pages. The Practice's most recent income statement information is presented below.

Sales	476,821
Cost of Goods	(89,562)
Gross Profit	387,259
Operating Expenses	(368,186)
Interest Income (Expense)	(9,851)
Pre-Tax Earnings	9,222
Selected Line Items	
Advertising	7,968
Owner's Compensation	122,987
Rent	20,500
Depreciation	7,539
Amortization	5,000
Office Payroll	156,300
Misc.	47,892
Total Operating Expenses	368,186

Transactional data is sorted by SIC and NAICS codes for "physical therapy" clinics. A search criteria was established for this valuation assignment for:

- Controlling interest of closely held practices.
- Primary SIC code 8049 and NAICS code 621340.
- Sales range of $150,000 to $700,000. This judgment was based on a belief these types of practices would operate in a similar fashion and structure (i.e., economic influences, service industry and management style).
- Time Frame: Transactions executed within the last three years.

Direct Market Data Method

SIC	NAICS	Business Description	Annual Sales ($000's)	SDE ($000's)	SDE % of Sales	Sale Price ($000's)	Price to Annual Sales	Price to SDE	Percent Down
8049	621340	Physical Therapy	$493	$143	29.0%	$150	0.304	1.05	100%
8049	621340	Physical Therapy	$173	$74	42.8%	$115	0.665	1.55	100%
8049	621340	Physical Therapy	$503	$123	24.5%	$245	0.487	1.99	100%
8049	621340	Physical Therapy	$571	$68	11.9%	$165	0.289	2.43	100%
8049	621340	Speech Therapy	$164	$104	63.4%	$56	0.341	0.54	100%
8049	621340	Physical Therapy	$516	$114	22.1%	$110	0.213	0.97	100%
8049	621340	Physical Therapy	$516	$114	22.1%	$110	0.213	0.97	100%
8049	621340	Physical Therapy	$469	$168	35.8%	$283	0.603	1.69	100%
8049	621340	Speech Therapy	$324	$121	37.3%	$177	0.546	1.46	100%
8049	621340	Physical Therapy	$321	$93	29.0%	$249	0.776	2.68	100%
8049	621340	Physical Therapy	$680	$286	42.1%	$400	0.588	1.40	100%
		Count	11	11	11	11	11	11	11

Complete the following with respect to:

A. What is the range of price-to-sales valuation multiples?

Lowest P/S Multiple _____________ Highest P/S Multiple __________

B. What is the mean and median of price-to-sales valuation multiples?

Mean ________________ Median ______________

C. What is the range of price-to-seller's discretionary earnings multiples?

Lowest P/SDE Multiple ________ Highest P/SDE Multiple _________

D. What is the mean and median of price-to-seller's discretionary earnings multiples?

Mean ________________ Median _____________

E. What is the Practice's indication of value using the financial measurement of sales? $____

F. Summarize the support you would offer to convince the reader that the P/S valuation multiple you selected is reasonable.

____

____

G. What is the Practice's indication of value using the financial measurement of SDE? $____

H. Summarize the support you would offer to convince the reader that the P/SDE valuation multiple you selected is reasonable.

____

____

[188 a, b, c, d] [189 e, f] Solutions

Characteristics of Value

[190] The ownership characteristic of an indicated value consists of two components: interest and basis. An ownership interest is either a control or a minority interest while the basis is either as-if freely traded value or on a closely held marketable value (commonly referred to as non-marketable). The type of interest obtained using the selected valuation methods is discussed below.

Guideline Public Company Method

- Interests: This method produces a minority interest value. Control premiums and discounts for lack of control should be considered on a case-by-case basis.
- Basis: The value is on an as-if freely traded marketable basis. When valuing a closely held company, a discount for lack of marketability is usually appropriate for minority interests and in some cases even for controlling interests.

Guideline Transaction Method (Merger and Acquisition Method and DMDM)

- Interests: This method usually produces a control interest value. If valuing a controlling interest, no control adjustment is generally required. If valuing a minority interest, a discount for lack of control is usually appropriate.
- Basis: The value is on a closely held marketable basis. When valuing a controlling interest, a discount for lack of marketability should be considered on a case-by-case basis. When valuing a minority interest, a discount for lack of marketability is usually appropriate.

Strengths and Weaknesses of Market-based Methods

[191] Guideline Public Company Method

- Objective source of information
- Accepted by the courts
- Large pool of comparative companies[15]
- Financial data is readily available as of almost any date
- It is time consuming
- Not all industries have a large number or any public companies
- Finding truly comparable companies is difficult
- Adjustments to financial statements may be controversial
- Public companies may have different risks and value drivers than smaller companies
- Difficult to support transferring minority interests on a free-traded basis into a control interest on a closely held marketable basis.
- This method is seldom employed when valuing small privately held companies.

[15] Source: According to Stock Investor Pro, as of 2021 there were 6,352 publicly traded companies.

Guideline Transaction Method

- Objective sources of information
- Accepted by the courts
- Limited pool of comparative transactions
- Provides direct evidence of control value
- Generally, information in the various data bases cannot be independently verified.
- Not all of the terms of sale are provided
- Financial data may be limited
- The dates of financial data may vary from the Subject
- Because of the transaction size may be useful to value smaller companies
- Difficult to support transferring control interests into a minority interest

Adjusting Terms to Cash Equivalent Valuation Multiples

[192] If the valuation assignment is to determine fair market value, the definition[16] is as "cash or cash equivalent." So, if any transaction has terms or some percentage as seller financing this does not have the same meaning as an all-cash transaction.

[193] Assume for a minute, the following transaction states: (i) gross sales of $2 million; (ii) sales price of $785,000; (iii) $500k down payment; (iv) seller financing in five equal annual payments; and (v) interest rate of 8.0% over the term. The resulting price-to-sales market valuation multiple would change from a "term price" multiple of 0.39 to an all "cash price" multiple of 0.36.

	Term Price	Cash Price
Gross Sales	2,000,000	2,000,000
Sales Price	785,000	727,584
Valuation Multiple	0.39	0.36

[194] Example of converting terms to cash pricing multiple.

Compute the annual payment based upon the face amount of the portion financed. In the example this would be $785,000 less $500k down payment. The balance of $285,000 payable over five equal annual payments at 8% interest.

Five Annual Payments @		8.0%	
		Seller Financing	$ 285,000
1	57,000	$0.926	52,778
2	57,000	$0.857	48,868
3	57,000	$0.794	45,248
4	57,000	$0.735	41,897
5	57,000	$0.681	38,793
		Present Value	227,584

[16] Source: International Glossary of Business Valuation Terms.

The present value figure is added to the down payment amount of $500,000. This total produces a cash equivalent selling price.

227,584	Present Value of Terms
500,000	Down Payment
727,584	Cash Selling Price

[195] While the adjustment to cash equivalent value seems fairly straight forward, many other factors should be given attention when converting to a cash equivalent value in this example, various factors, like: (i) lack of marketability of the note; (ii) lack of formal documentation by the debtor; (iii) uncertainty regarding the legal entity bearing liability; and (iv) unusual payment schedule (say annually or quarterly payments) should be considered.

Other Common Adjustments

[196] When utilizing the various databases containing closely held "sold" transactions, additional adjustments are required to the initial indication of value produced by the application of the market valuation multiple.

When using the aforementioned databases, the general assumption is that most, if not all, were sold with the seller retaining certain current assets and almost all liabilities. Thus, the buyer receives the business free and clear of all financial obligations.

Oftentimes, the valuation assignment requires the appraiser to report the "equity" value of the operating business. When this occurs, certain "packaging adjustments" are required to convert the initial indication of value to either invested capital or equity value (see following table).

DealStats Transaction Database		
	Market Value of Invested Capital Valuation Multiples	
	Sales	EBITDA
Company's Normalized Financial Measurements	$2,500,000	$150,000
Selected Market Valuation Multiple	0.25x	3.50x
Initial Indication of Value	$ 625,000	$525,000
Confidence Weightings	0.40	0.60
Weighted Values	250,000	315,000
Total Weighted Values from Selected Financial Measurements		$565,000
Packaging Adjustments		
Plus: Cash		15,000
Plus: Accounts Receivable		25,000
Plus: Pre-paid Expenses		1,265
Indication of Invested Capital Value, for a 100% Interest, on a Closely Held Basis		606,265
Less: Liabilities		$ (58,000)
Indication of 100% Equity for a 100% Interest, on a Closely Held Basis		$548,265

Lesson 11: Introduction to the Asset Approach

[198] This approach adjusts all assets and liabilities, both tangible and intangible, to their fair market value. The adjusted value reflects an appropriate premise of value, generally going concern or liquidation. Commonly used valuation methods under the asset approach include the:

- Net asset value method
- Excess earnings method
- Liquidation value method

The asset approach has greater or lesser appropriateness based on: the intended use of the valuation, the size of interest being valued, the integrity of the balance sheet, and the industry type in which the company operates. (see VAB6 Chapters 15 and 16)

An asset-based method is more appropriate for:

- Holding companies
- Not-for-profit organizations
- Asset-intense companies
- Controlling interests that have the ability to liquidate assets
- Actual sale valuations with a financial buyer (i.e., fair market value)
- High-integrity balance sheet (i.e., accrual method either audited or reviewed)

An asset-based method is less appropriate for:

- Asset-light businesses (i.e., professional practices and service businesses)
- Labor-intense businesses
- Operating companies with intangible value, particularly goodwill
- Minority interests that do not have the ability to liquidate assets
- Smaller businesses
- Actual sale valuations with a strategic buyer (i.e., investment value)
- Low-integrity balance sheet (i.e., cash basis method compilation)

Net Asset Value Method

[199] In arriving at an indication of value using the net asset value method, assets and liabilities are revalued to their current (as of valuation date) fair market value, as nearly as can be estimated. This method requires the following steps:

- Obtain the Subject's historical financial statements
- Adjust the historical financial statements, if appropriate
- Adjust for unrecorded assets and liabilities
- Tax effecting adjustments to the balance sheet, if appropriate
- Estimate the operating value

Adjusting the Balance Sheet

[200] A business appraiser needs to investigate whether assets reflected on the balance sheet are nonoperating or excess assets, and whether a business has operating assets which are not reflected on the balance sheet. In this regard, after review of the subject business' financial statements, relevant questions need to be asked in the management interview. Management's responses need to be scrutinized as to honesty and as to reasonableness. (see VAB6 pgs. 364-380)

An appraiser needs to be intuitive and function as a "detective" to uncover financial statement "irregularities." It's often not possible to discover all irregularities in a normal appraisal investigation. Often, financial statements of small and mid-size businesses are of low quality. These financial statements are "managed" based on an owner's cash needs and with the intent to mitigate the combined business and owner income tax and payroll tax liability. Therefore, there is typically more normalization adjustments associated with small and mid-size businesses than with large businesses.

[201] Common net asset adjustments include:

- Marketable securities
- Accounts receivable
- Inventory
- Related party transactions (receivables and payables)
- Property and equipment
- Intangible assets
- Interest-bearing debt
- Non-interest-bearing debt

Exercise:

[202] Complete this exercise by normalizing the balance sheet at fair market value incorporating the following information. What is the adjusted equity value? __________________

[1] Estimated at 95% collectable

[2] Estimated at 80% useable or salable

[3] A qualified asset appraiser valued the machinery and equipment at $1.0 million; furniture and fixtures $64,000; and vehicles $125,000

[4] Leasehold improvements (owned by landlord; landlord not affiliated with the business)

Normalized Balance Sheet

Balance Sheet Item	Historical	Adjustment		Normalized
Cash	25,000			
Receivables	1,496,246		[1]	
Inventory	683,168		[2]	
Other	50,886			
Total Current Assets	2,255,300			
Machy & Equip	1,356,789		[3]	
Furn & Fixtures	89,456		[3]	
Vehicles	178,956		[3]	
Lease Improv	25,000		[4]	
Total FF&E Assets	1,650,201			
Total Accum Depreciation	(1,151,735)		[5]	
Net FF&E Assets	498,466			
Intangible Assets	-			
Total Assets	2,753,766		[6]	
Short-Term Debt	135,000			
Payables	887,718			
Other	278,571			
Total Current Liabilities	1,301,289			
Long-Term Debt	350,201			
Other	3,550			
Total Long-Term Liabilities	353,751			
Total Liabilities	1,655,040			
Total Equity/Capital (Net Worth)	1,098,726		[7]	

[203] Solution

Valuing Intangible Assets

Sometimes a business will have significant intangible assets that are not recorded on the balance sheet. Therefore, it may be necessary to value the intangible assets.

[204] Examples of intangible assets include:

- Market related - non-compete agreement, trademark, trade names
- Customer related - customer lists, mailing lists
- Contract based - employment contracts, royalty agreements, licensing agreements, servicing contracts
- Technology related - engineering drawings, operational manuals, patents, technical documentation
- Data processing related - databases, chip masks computer software, MIS systems

<u>Asset Appraisals</u>

Asset appraisals may be necessary in the following situations:

- If inventory or property and equity are a major component of company value
- If purchase price allocation is required
- If asset liquidation is a consideration
- If nonoperating assets are a factor

When selecting an asset appraiser, the business appraiser should consider the following factors:

- Appraiser’s professional qualifications (i.e., ASA)
- Relevant experience valuing the specific type of assets to be valued
- Adheres to USPAP
- Ability to provide a supportable opinion

The “net asset value method” sometimes referred to as the “adjusted book value method” is simple the normalization of assets and liabilities at their market value, as of a certain period in time (i.e., valuation date).

Tax Effecting Adjustments

[205] Tax effecting adjustments on the balance sheet are performed for divorces, pass-through entities and estate tax matters. This issue is commonly referred to as trapped-in capital gains or built-in gains.

Trapped-in capital gains arise when the fair market value of an asset(s) is higher than the tax basis. This is most important in C Corporations but can also be a factor in S Corporations, partnerships, and limited liability companies.

Trapped-in capital gains tax is utilized to reflect the diminution in value associated with the tax liability for an asset's capital gain. The concept is that a likely buyer would pay less for the stock of a company with appreciated assets subject to capital gains taxes than they would to buy the assets directly.

[206] A controversial issue arises as some appraisers believe the amount of the discount should always be 100% of the potential liability, while others believe that it depends on the circumstances of each case. Some appraisers frequently adjust the balance sheet for potential tax liability thus eliminating the need for a separate and controversial trapped-in capital gains discount.

[207] Let's walk through one model in developing the trapped-in capital gains tax issue. Incorporating the normalized information from the adjusted balance sheet exercise.

Fair Market Value - Fixed Assets	1,189,000
Fixed Assets Remaining Basis (booked)	(498,466)
Trapped-In Capital Gains	690,534
Effective Tax Rate	28.5%
Trapped-In Tax Liability	196,802

In the above example, we now know the total trapped-in capital gains tax is $196,802. Consider for a moment this figure is reasonable and the assets were all sold on the date of valuation.

[208] The following table presents multiple holding periods before the assets might be sold (i.e., when is the likelihood Company assets will be sold). A present value factor is applied to each period to arrive at the weighted trapped-in capital gains tax.

Discount for Trapped-In Capital Gains

Scenario	Trapped-In Tax Liability	Holding Period	Present Value Factor	Probability	Weighted Average
Near-Term Sale	196,802	2	0.667	20.0%	26,272
Mid-Term Sale	196,802	5	0.364	50.0%	35,817
Long-Term Sale	196,802	10	0.132	30.0%	7,822
Weighted Average Trapped-In Capital Gains Tax					69,912
FMV Fixed Assets					1,189,000
Applicable Trapped-In Capital Gains Tax Discount					5.88%

Valuing Goodwill

[209] One method of valuing intangible assets is by applying the excess earnings method. The excess earnings method of valuation is widely used for measuring the goodwill or intangible value of a business, not the entire company. (see VAB6 pgs. 345-358)

[210] The excess earnings method was first promulgated in Appeals and Review Memorandum 34. The method was updated and restated in Revenue Ruling 68-609. The IRS does not favor this method as they indicate this method should only be used when no better method exists.

However, in "Business Valuation Body of Knowledge" Dr. Shannon Pratt states, "Despite the IRS position, the excess earnings method remains one of the most popular methods to value small businesses and professional practices." In addition, in "Valuing a Business - Sixth Edition" the authors have indicated that "by careful development of the key variables an appraiser should be able to properly apply the excess earnings method."

Excess earnings are earnings considered over and above the amount needed to provide a reasonable return on the identifiable tangible assets held by the business.

- Earnings should be after subtraction of a market rate of compensation.
- Tangible assets should be net of liabilities.
- The rates stated in RR 68-609 are examples only.

[211] The excess earnings method typically follows these basic steps:

1) Estimate a normalized level of income (net cash flow, pre-tax income, net income).
2) Determine the market value of the net tangible assets.
3) Develop a reasonable rate of return (as of the valuation date) on the market value of the net tangible assets based on the Company's blended assets (debt and equity) mix.
4) Multiply the net tangible asset rate of return by the net tangible assets of the Company. This amount is the reasonable return on those assets.
5) Subtract the calculated amount for Step 4 from next year's earnings stream. This figure is the excess earnings attributable to intangible assets.
6) Determine an appropriate capitalization rate applicable to the excess earnings.
7) Capitalize the excess earnings amount by dividing the excess earnings (step 5) by the capitalization rate developed in Step 6. This figure is the estimated intangible asset value.

[212] Step 1: Normalized Level of Income

Revenue Ruling 68-609 does not specify a definition of income. However, there is general agreement that:

- Nonrecurring income or expenses and nonoperating income should be removed when determining normalized income.
- If a business leases real estate from a company owned by the business owners, rent expense should be adjusted to a market rate.
- Revenue Ruling 68-609 instructs the appraiser that an earnings stream selected must fairly reflect the probable future earnings and after deducting a reasonable amount for services performed by the owner(s) or partner(s).

The general trend has been to use net cash flow; however, many appraisers use net income or earnings before taxes.

Care should be taken to ensure there is consistency between the level of economic income selected and the required rate of return selected for net tangible assets and the capitalization rate for intangible assets.

[213] Step 2: Net Tangible Asset Value

Revenue Ruling 68-609 does not specify a definition of net tangible assets (i.e., in terms of premise of value or standard of value). There is general agreement that:

- Net tangible asset values are based on fair market value and on a going concern premise of value.
- Nonoperating and excess assets should be removed from the balance sheet when determining net tangible asset value.

[214] There is no generally accepted agreement to net of what. Various definitions used include:

- Gross assets less accumulated depreciation (i.e., assets adjusted to market value less economic depreciation)
- Current assets plus property and equipment less current liabilities
- Current assets plus property and equipment less all liabilities

"The most common interpretation of the term net tangible asset value is net current value of the financial assets and the tangible assets less current liabilities only."[17]

[17] Source: Valuing a Business, Sixth Edition.

[215] Step 3: Required Rate of Return on Net Tangible Assets

Theoretically, a rate of return developed for net tangible equity should reflect the risks associated with investing in a business' net tangible assets. Debt and equity from the balance sheet form the blended "debt-to-equity" risk of the business.

Having stated the obvious, a reasonable rate of return must use a Company's overall estimated equity rate as a function in developing this rate (since debt and equity are used by lenders in setting the Company's interest rates).

[216]

	Fair Market Value	Loan Percentage	Loan Amount
Accounts Receivables	2,494,564	85.0%	2,120,379
Inventory	2,726,257	75.0%	2,044,693
Fixed Assets	987,351	60.0%	592,411
Other Assets	273,774	40.0%	109,510
Less: Existing Debt			(1,185,000)
Remaining Borrowing Capacity	6,481,946	56.8%	3,681,992
Market Borrowing Rate	4.00%		
One minus Blended Tax Rate	60.0%		
Required Return on Debt	2.40%	56.8%	1.4%
Required Return on Equity Investment	20.0%	43.2%	8.6%
Developed Rate of Return on Net Tangible Assets			10.0%

Note: There is no single source to determine the required return on tangible equity.

Another methodology is to use the prevailing industry average rate of return on net tangible assets. This is difficult because most websites only provide returns that typically include both tangible and intangible assets. A controversial issue with this methodology is that the returns are based on book values rather than fair market values. Accordingly, some appraisers use rates of return on stockholders' equity as an approximation of the required returns on net tangible assets.

Using historical rates of return is only appropriate if they approximate expected future rates of return.

[217] Steps 4 & 5: Are simply math calculations.

[218] Step 6: Developing an Intangible Asset Rate of Return

Appraisers must estimate a reasonable rate of return for the intangible assets of the business. If the Subject's blended capitalization rate for net tangible assets is say 10%, and the overall blended (debt and equity) equity discount rate is 20%, then the estimated intangible asset rate of return must exceed the business' equity discount rate. Why, you ask? Intangibles by their very nature are a riskier investment, as such, should command a higher rate of return to compensate for this added risk.

Remember, in case of default, an owner has an opportunity to sell the tangible assets and is compensated for this at a lower rate of return. Intangible assets, in most cases, are not salable when separated from their income producing tangible asset counterparts; hence a higher risk related rate of return is required.

The size of an intangible rate of return is dependent on the amount of tangible assets on the balance sheet. As tangible asset levels decrease, a higher intangible rate of return is required to compensate for added risk. As the level of tangible assets increase, the intangible asset rate of return decreases. This makes sense because an investor would expect less of a return based on reduced risk.

[219] Another method for developing an excess earnings capitalization rate is an iterative process. An iterative process is used to describe a situation in which the market weights are estimated several times until the computed rate approximates a target rate. The weighted overall rate should compare somewhat to the Company's overall rate of return (i.e., 20%).

Reasonableness of the Selected Intangible Asset Rate

	Indicated Values	Indicated FMV Value	Weighted Portion	Rates	Weighted Rate
Tangibles	1,598,905	3,014,430	0.530	10.0%	5.3%
Intangibles	1,415,525	3,014,430	0.470	30.0%	14.1%
		Weighted Overall Rate of Return			19.4%

Remember, it is your opinion and you must support your estimate for any rate of return applicable to the business' intangible assets.

[220] Step 7: Application of the Excess Earnings Method

Projected Equity Earnings Stream (after-tax)		265,000
Fair Market Value of Net Tangible Assets	1,150,762	
Multiplied by: Rate of Return on Net Tangible Assets	10.0%	
		(115,105)
Available Excess Earnings		149,895
Divided by: Selected Intangible Assets Yield Rate		30.0%
Equals: Indicated Value of Intangible Assets		499,649

Recall, the excess earnings method is used only to value the intangible assets.

[221] Example of combining the Net Asset Value and Excess Earnings Methods

Net Tangible Asset/Excess Earrings Method			
	Fair Market Value	Loan Percentage	Loan Amount
Accounts Receivables	2,494,564	70.0%	1,746,195
Inventory	2,726,257	50.0%	1,363,129
Fixed Assets	987,351	40.0%	394,940
Other Assets	273,774	20.0%	54,755
Less: Existing Debt			(1,185,000)
Remaining Borrowing Capacity	6,481,946	36.6%	2,374,019
Market Borrowing Rate	4.00%		
One minus Blended Tax Rate	60.0%		
Required Return on Debt	2.40%	36.6%	0.9%
Required Return on Equity Investment	20.0%	63.4%	12.7%
Developed Rate of Return on Net Tangible Assets			13.6%
Excess Earnings Calculation			
Projected Equity Earnings Stream (after-tax)			265,000
Fair Market Value of Net Tangible Assets		1,150,762	
Multiplied by: Rate of Return on Net Tangible Assets		13.6%	
			(155,974)
Available Excess Earnings			109,026
Divided by: Selected Intangible Assets Yield Rate			30.0%
Equals: Indicated Value of Intangible Assets			363,420
Add: Fair Market Value of Net Tangible Assets			1,150,762
Initial Indication of Value			1,514,182
Add: Nonoperating Assets			390,000
		Total Indicated Equity Value	1,904,182

The “net asset value method” as defined by the International Glossary of Business Valuation Terms is “the difference between a business’ total assets and liabilities restated at a particular standard of value rather than accounting book values.”

Negative Goodwill

[222] There are times when an earnings stream is not large enough to support a business’ intangible asset value or the unidentifiable goodwill portion. In these cases, your calculations may produce a negative figure – meaning a negative intangible asset value.

Intangible assets of a business either have positive intangible asset value or no intangible asset value. The notion of negative intangible asset value is not supported in the market place. A hypothetical willing seller would not pay a buyer for a negative intangible asset value position. The business either has intangible asset value or it does not.

Liquidation Value Method

[223] The liquidation value method is actually a premise of value under the adjusted net asset method. Liquidation value assumes the discontinuance of the Subject's business or an interest held in the business. In estimating the potential gross amount of proceeds from liquidation there are two possible premises of value: value in exchange, in an orderly liquidation; or value in exchange, in a forced liquidation.

> *Under an orderly disposition, "it is assumed that the subject's assets are sold piecemeal, and not as part of a mass assemblage. It is assumed that the assets are given an adequate level of exposure in their normal secondary market."*

> *Under a forced liquidation,[18] "it is assumed that the subject's assets are sold piecemeal, and not as part of a mass assemblage. It is also assumed that the assets are not allowed a normal level of exposure to their secondary market. Rather, the assets are permitted an abbreviated level of exposure to a market of the highest bidders' present (who may or may not represent the collective demand-side marketplace for such assets, such as in an auction environment)."*

The liquidation value method generally involves several complex steps and analyses. Generally, a qualified asset appraiser is required when the liquidation value method is selected.

If profitability or the non-existence of profit cannot support the underlying collection of assets, then at times, liquidation of the Company's assets may have greater value than the continuation of the business as a going-concern. When this is the case, the liquidation value method typically consists of the following procedures:

- Consider market value adjustments to the balance sheet (any missing assets or liabilities). Asset appraisers are generally employed to estimate liquidation values for inventory and FF&E assets and any identifiable intangible assets.
- Determine the correct premise of value to use (forced or orderly liquidation).
- Estimate the gross amount of proceeds from liquidation of assets (including broker/seller commission expenses).
- Deduct from initial value, expenses relating to any direct or indirect costs, such as, legal fees and auctioneer costs, and any operating profits or losses until the final liquidation period.
- Deduct from liquidation value any liabilities or contingent liabilities that may be associated with the assets.
- Consider any taxable liabilities from a possible gain on the sale of an asset or group of assets on the balance sheet for income tax purposes.

[18] Source: Valuing a Business 6th Edition.

- Consider discounting to present value calculation if circumstances dictate market time to sell may be an issue.

Remember, liquidation value is the net amount that could be realized after all assets have been sold and liabilities satisfied.

<u>Possible Adjustments for Liquidation Period Profits or Losses</u>

- From the gross proceeds it may be necessary to deduct other liquidation expenses such as selling, legal, management and other costs.
- If the Subject is a C Corporation income taxes should be deducted from any gains or losses on the sale of assets or the settlement of liabilities and operating profits.
- If the Subject has preferred stock or senior equity securities their liquidation preference should be subtracted from the gross proceeds.
- It may also be necessary to subtract the present value of any asset holding costs (i.e., inventory, equipment, real estate, etc.), administrative costs associated with winding down the business, and severance and benefit costs.

The liquidation of some assets (i.e., inventory) may need to be adjusted for items such as restocking charges and freight costs. Scrap value may be appropriate in some cases.

When determining the liquidation value of certain assets (i.e., machinery and equipment, inventory, etc.) it may be necessary to discount the proceeds to a present value because it may require several months to sell the assets.

Strengths and Weaknesses of Asset-based Methods

[224] Net Asset Value Method

- Accepted by the courts
- May be more important if valuing an asset-intense business
- Useful when valuing a control interest
- May be expensive if tangible asset appraisals are required
- May be expensive if intangible asset valuations are required
- Difficult to apply to minority ownership interests
- Less useful if valuing an intangible intense business

[225] Excess Earnings Method

- Simple to understand
- Accepted by the courts for professional practices and small businesses
- Disagreement within the profession concerning how this method should be implemented

Characteristics of Value

[226] The ownership characteristic of an indicated value consists of two components: interest and basis. An ownership interest is either a control or a minority interest while the basis is either as-if freely traded value or on a closely held marketable value (commonly referred to as non-marketable). The type of interest obtained using the selected valuation methods is discussed below.

Net Asset Value Method

Interest: Generally, this method produces a control interest value. Therefore, when valuing a control interest, a controlling interest premium adjustment is not required. When valuing a minority interest an adjustment for difference in degree of control is required.

Basis: This method's basis is controversial. Some appraisers believe the indicated value is on an as-if freely traded basis while others believe it is on a closely held marketable basis. Most appraisers believe the value is on a closely held marketable basis because the tangible assets were valued at their fair market value, which generally includes a reasonable time to sell. When valuing a minority interest that cannot force the sale of assets, an adjustment for a difference in degree of marketability may be necessary.

Excess Earnings Method

Interest: This method produces a control interest value. Therefore, when valuing a control interest, a controlling interest premium adjustment is not required. When valuing a minority interest an adjustment for difference in degree of control may be required.

Basis: This method's basis is controversial. Some appraisers believe the indicated value is on an as-if freely traded basis while others believe it is on a closely held marketable basis. The thinking is along the lines of: tangible asset rate may have been developed using non-marketable rates of return, while other believe if the marketable rate of return were employed then some measure of lack of marketability is warranted. Those appraisers would consider applying a discount for lack of marketability to the intangible asset value. If a discount for lack for lack of marketability is applied to a controlling interest, it is generally much less than for a minority interest.

Common Errors

The following are some of the more common errors made when using the net asset value method.

- Using an unrealistic estimate of normalized earnings
- Not allowing for shareholder salary
- Not defining tangible asset value
- Not properly supporting the selection of capitalization rates
- Improperly using capitalization rates from RR 68-609

Some of the more common errors encountered when using the excess earnings method are shown below.

- Failure to allow for arm's length market owner's salary
- Failure to use a realistic estimate of future normalized earnings
- Use of book value instead of adjusted FMV values
- Errors in developing appropriate capitalization rates

Lesson 12: Discounts and Premiums

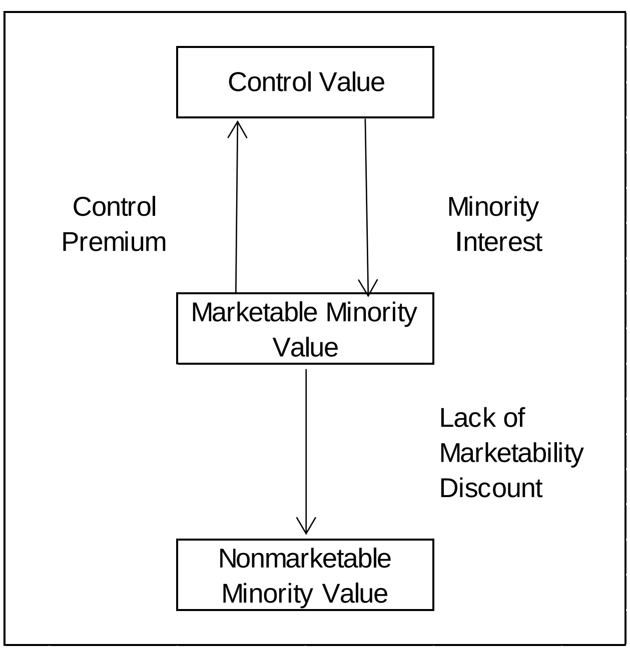
It is appropriate to determine whether the previously discussed indications of value should be adjusted for any premiums or discounts. Discounts and premiums vary based on facts and circumstances of each valuation assignment. Adjustments are generally categorized as being either entity level adjustments or shareholder level adjustments. (see VAB6 Part IV; Chapters 17, 18, 19 and 20)

[228] There are many types of premiums and discounts that could be applied in any given valuation assignment. The most common are:

- Discount for lack of marketability
- Discount for lack of control
- Control premium
- Voting v. Nonvoting
- Key Person
- Litigation (lawsuits)

Adjustments to the Levels of Value

[229] Recall in Lesson 2, the basic levels of value chart demonstrated the differences between control and minority values, as well as the marketability or lack of, that must be considered. (see VAB6 pgs. 388-401)



Note: The level of premium or discount is case specific and can only be determined after all of the relevant facts to the particular interest are considered.

Application of Discounts

[230] The most commonly used discounts are for lack of control and marketability. These two discounts are applied multipliable rather than additive. The following table present an example of the differences.

$100.00			Indicated 100% Control Value
$ (20.00)		20%	Less: Lack of Control Discount
$ 80.00			Equals: Minority Value prior to DLOM
$ (24.00)		30%	Less: Lack of Marketability Discount
$ 56.00			Equals: Minority Interest Value on a Closely Held Basis
44%	v.	50%	Difference

Discount for Lack of Marketability

Conceptually speaking, the major difference between a closely held company's common shares and those of its publicly traded counterparts is its lack of marketability.

Marketability generally refers to an owner's ability to sell their interests at a predetermined price with nominal transaction commissions and to realize the cash proceeds of the sale in three to five business days. Such discounts therefore are applicable to most investments in stocks not listed on an organized exchange or traded in an active over-the-counter market.

The primary sources of discounts for lack of marketability are empirical models, theoretical models and academic studies. Empirical models are based on actual transactions that have occurred in the marketplace while theoretical models are based on economic formulas.

[231] A discount for lack of marketability has two components, transferability and liquidity. (see VAB6 Chapter 19 pgs. 419-479)

- Transferability denotes the right to sell an asset in a market within a reasonable time frame at relatively low transactional costs, along with minimal effect on its value. Transferability is limited by ownership agreement, lack of disclosure, and the time and cost to rectify it.

- Liquidity denotes the ability to convert an asset into cash without diminishing its value. Liquidity is a spectrum. A block with high liquidity will have low transaction costs, a short liquidation period and minimal discounts (i.e., bid-ask spread). A block with low liquidity will have the opposite characteristic. Liquidity is limited by the absence of a ready market, which reduces realizable value due to exposure time, large bid-ask spreads, and a limited buyer pool, increasing price risk.

For example, if you are using data from Kroll's Cost of Capital Navigator in the build-up method, a lack of marketability discount should be considered because securities in these public markets can be sold quickly and you receive your money within "three business days." hence you have "marketability (as-if freely traded)."

Discount for Lack of Control

[232] On a conceptual basis, a discount for lack of control (also referred to as a minority interest discount) is commonly used to reflect "an amount or percentage deducted from the pro rata share of value of one hundred percent (100%) of an equity interest in a business to reflect the absence of some or all of the powers of control." [19]

[233] A discount for lack of control refers to a shareholder's position in a business enterprise, which is less than 50% plus one share or an inadequate block of shares to exercise de facto operating control of the said business enterprise in cases where there are many shareholders. The absence of the power to control a company's direction, assets, or any aspect of its future results is a less marketable ownership interest than a control position in the company. Therefore, a discount for lack of control is taken from the pro rata share to reflect the absence of the power of control.

When any of these control elements are not available to an ownership interest, the value attributable to control must be reduced accordingly.

[234] At the present time, no direct evidence is available regarding the magnitude of discounts for lack of control for operating companies. Since no direct evidence is available, business appraisers have commonly estimated discounts for lack of control indirectly from control premium studies. Control premiums are derived from the public markets or partnerships.

[235] The equation for the average implied DLOC is: (see VAB6 pg. 415)

DLOC = 1- (1 ÷ (1+ average control premium))

[235] Example:

If the selected control premium is 29%, the implied DLOC is 22.5%

1.00 plus .29 equals 1.29
1.00 divided by 1.29 equals 0.7752
1.00 minus 0.7752 equals 22.5%

Voting versus Nonvoting Stock

If a company has both voting and nonvoting stock, there may be a price differential between the stock in favor of the voting stock.

[236] When a small block of voting stock holds a controlling interest in a company, they generally have no obligation to offer non-control shareholders the same price per share.

When there is a large number of both voting and nonvoting shares, the price differential is usually less than 5%, absent a takeover scenario, with no study indicating a discount of over 10%.

[19] Source: International Valuation Glossary - Business Valuation Issued February 24, 2022).

Key Person Discount

A "key person discount" is applicable when a "key" person will be departing the business.

[237] Consideration should be given in the case of replacing a "key" person or any effect on future earnings that may result from any loss of the departing "key" person. The discount can be quantified by the length of time and investment necessary to replace the key person and rebuild the business (i.e., the present value of management's estimates in forecasting lost customers/revenue, recruiting costs and time to ramp revenue back up as an estimate of the true discount (value) associated with the key person).

Note: Appraisers frequently adjust the forecasted income statement for key person risk thus eliminating the need for a key person discount.

Environmental and Litigation Discounts

[238] Claims against companies for environmental concerns (e.g., mining, gas stations, etc.) are for potential remediation costs. Litigation discounts account for unfavorable judgments that may impact the future of the business.

Another common consideration is warranties, gift cards, coupon books, BOGO, etc.

Errors in Applying Discounts and Premiums[20]

- [239] Assuming the discounted future earnings and capitalization of earnings methods will always produce a minority interest value.
- Assuming the guideline public company method will always produce a minority interest value.
- Valuing underlying assets rather than stock or partnership interest.
- Using minority interest marketability discount data to quantify marketability discounts for controlling interests.
- Using only restricted stock studies as a benchmark for discounts for lack of marketability.
- Conducting inadequate analysis of relevant factors.
- Indiscriminate use of average/median discounts or premiums.
- Applying discounts or premiums to the entire capital structure rather than only to equity.
- Quantifying discounts or premiums based on past court cases.

[20] Source: Business Valuation Discounts and Premiums, Shannon Pratt, Chapter 20.

Lesson 13: Reconciliation of Values

[241] Once the development of the valuation methods has been completed, there are now various "indications of value," that need to be addressed. Conceptually speaking, the valuation methods employed created a range of values. This range should be within a meaningful range of the low to high values. If not, the appraiser should review the data and explain why the range is so wide. Value, for business valuation purposes, is considered a range of values; however, nearly everyone wants value expressed as a single dollar amount. (see VAB6 Chapter 21)

[242] Assume the valuation assignment is to conclude with a single dollar value, or more commonly referred to as the appraiser's final "opinion of value." The reconciliation process requires the appraiser to consider each method and the level of confidence the appraiser has in each method toward the final opinion of value.

[243] Each valuation method utilized in the valuation assignment will more than likely produce different indications of values. Remember, each of the three valuation approaches uses a different perspective in reaching a value. The appraiser should consider: (i) the degree of reliability of the information; (ii) the level of appropriateness from each method; and (iii) the spread of indicated values employed by each method. If the indications of values for each method employed in a particular valuation assignment are far apart, put your pencil down until you can answer the following questions:

- Did I develop my rate properly?
- Did I apply my rate to the appropriate financial measurement?
- Did I make the correct financial adjustments?
- Did I consider what the seller and buyer would do in the application of each method?
- Is my math correct in each method?

The final comparison of the various indications of value should be on a similar basis that is on a marketable basis (i.e., as-if freely traded) or on a non-marketable basis (i.e., on a closely held basis).

[244] The reconciliation process expresses the appraiser's confidence level for each method employed during the valuation exercise. There are a number of ways to demonstrate the

reconciliation of values. The most important issue is the appraiser's explanation of why one method was selected or given greater weighting over another particular method.

> Revenue Ruling 59-60 states: *"…no useful purpose is served by taking an average...and basing the valuation on the results." Such a process excludes active consideration of other pertinent factors, and the end result cannot be supported by a realistic application of the significant facts in the case except by mere chance."*

For each method developed, over the course of the valuation assignment, the appraiser should discuss the pros and cons of each method developed. Simply stated, if more confidence is found in a particular method, discuss the reasoning and support.

There are essentially two techniques the appraiser can use to arrive at a single dollar value. They are commonly referred to as mathematical weighting and subjective weighting techniques. When employing the mathematical weighting technique, the appraiser assigns a weighting percentage to each method. The subjective weighting technique discusses in narrative form why the appraiser selected the single dollar value from within the range of indicated values.

<u>Example of Mathematical Weighting Support</u>

- The Capitalization of Earnings Method reflects value based on the capitalization of a representative period of cash flow. For this method to generate an accurate and realistic value for the business, its historical performance should be indicative of its future operations, assuming a normal growth rate. The capitalization rate chosen reflects the risk involved, considering economic conditions, nature of the industry and specific characteristics of the business. The value generated by this method reflects PrivateCo's return on investment and therefore is an excellent indicator of value. Therefore, the appraiser accorded this method with the most confidence weight toward the final opinion of value.
- The Guideline Transactional Method is conceptually correct in that evidence of actual transactions of closely held businesses similar to PrivateCo's have sold in the market place. However, the limitations on the data about these private transactions somewhat tarnishes the indication of value. Conclusion: The value indicated under the market approach will figure in the final opinion of value and will receive the second greatest amount of weight.

- The Net Asset Value Method is somewhat suspect for the following reasons; (i) the assets are not owned by the individual shareholders but by the corporation; (ii) the values assigned to fixed assets were estimated without a qualified machinery and equipment appraisal performed. Conclusion: The value indicated under the asset approach will figure in the final opinion of value and receive the least amount of weighting.

[245] A summary in tabular form might appear as follows: (see VAB6 pgs. 492-494)

Reconciliation of Indicated Values

Valuation Method	Value and Basis Indicated by Method	Adjustments in Degree of Control	Adjustments in Degree of Marketability	Adjusted Value and Basis	Weighted Confidence Level	Weighted Component Value
Capitalization of Earnings	3,325,000 Freely Traded, Minority	N/A	-0.10	2,992,500 Closely Held, Control	0.60	$ 1,795,500
Guideline Transaction	3,287,000 Closely Held, Control	N/A	N/A	3,287,000 Closely Held, Control	0.30	$ 986,100
Net Assets Value/Excess Earning	2,751,000 Closely Held, Control	N/A	N/A	2,751,000 Closely Held, Control	0.10	$ 275,100
					Initial Indication of Value	$ 3,056,700
					Add: Excessive Inventory Amount	62,415
					FMV of a 100% Equity Interest on a Closely Held Basis *(Rounded)*	$ 3,100,000

Question: What would a hypothetical investor believe to be the most important financial measurement to base his or her investment decision on?

Willing Buyer and Willing Seller

[246] Consider for a moment the term “value.” Value by its very nature is a vague term mainly because it has different meaning in a variety of situations. Under the fair market value definition, the assigned value is the amount at which property would change hands between a willing buyer and a willing seller when the former is not under compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of the relevant facts.

As the appraiser you must answer, would the willing buyer/investor buy it for that value and would the willing seller sell it for that value?

(see VAB6 Chapter 23 for sample reports)

ASA's Principles of Valuation Courses

[247] Principles of Valuation (POV) courses required for those seeking a credential with ASA.

BV201 Introduction to Business Valuation - Market Approach

BV201 is the first course in the Principles of Valuation (POV) course series. This course will introduce practitioners to the steps necessary to complete a valuation assignment and will provide an overview of how to apply the Market Approach. More specifically, the course will provide a Guideline for Public Company and Merger and Acquisition Methods.

BV202 Introduction to Business Valuation - Income Approach

BV202 was designed to build upon the learning outcomes achieved in BV 201 by adding the income approach to the student's skill set/toolbox. This course places heavy emphasis on the three key variables of a valuation: (i) Benefit Streams; (ii) Risks (i.e., discount rate); and (iii) Growth. Students will be provided with the core concepts necessary for them to immediately apply the income approach without regard to the specific standard of value or purpose for the valuation.

BV203 Introduction to Business Valuation, Asset Approach - Discounts and Premiums

BV203 is an advanced course that takes the valuation foundations covered in BV201 and BV202 and extends the principles of value (POV) series into advanced topic areas, including those with diversity in their practice. Students will learn to: (i) apply the asset approach; (ii) apply discounts and premiums; (iii) reconcile values; and (iv) write reports that illustrate the most contentious valuation topics.

BV204 Advanced Topics in Business Valuation

BV204 is the capstone course, which applies the general valuation theory and principles learned in BV201, BV202 and BV203 and introduces the student to a variety of advanced valuation applications. This course is presented in the following chapters (see more detail below): Pass-Through Entities; Intangible Assets; Non-U.S. Cost of Capital; Fairness Opinions; Solvency Opinions; Value Allocation in a Complex Capital Structure; Employee Stock Ownership Plan Valuation; Valuation of Debt and Preferred Stock; Litigation Services; and Advancement and Accreditation.

BV207 Business Valuation Report Writing and Analysis

BV207 course has been prepared for illustrating report writing errors commonly found in submitted reports and with a view to the high degree of competence and report-writing skill required to pass the rigorous report review by ASA's Board of Examiners. Candidates who follow the guidelines presented in this course stand a much better chance of preparing a satisfactory report on the first try.

Implicit Valuation Methods

Using information learned over this course what considerations make one or more methods more or less appropriate for a valuation assignment. Understanding the valuation assignment is key prior to selecting a given method or methods.

[248] Exercise 1:

You have been retained to determine the fair market value of a 100% interest for the purpose of an estate settlement. The deceased owns all of the “C” corporation shares of common stock. The corporation has been profitable for many years, most recent sales were $3.8 million. Company historical growth approximates 4% and management expects the same to continue. The business is asset-intense. Indicate which method(s) would you anticipate using for this valuation assignment?

X	Method
________	Capitalization of Earnings Method
________	Discounted Cash Flow Method
________	Net Asset Value Method
________	Excess Earnings Method
________	Guideline Public Company Method
________	Merger & Acquisition Method
________	Guideline Transaction Method
________	Liquidation Method

[249[Exercise 1 Solution

[250] Exercise 2:

You have been retained to determine the fair market value for a 30% interest in a service-related business (holding very few assets) for use in the 100% owner gifting his son a 30% interest. The company’s annual sales and profitability have been volatile over the past five years and the next few years management expects the same results for sales and profits. The most recent annual sales were $500,000 with profits estimated at 8.0% of sales.

X	Method
________	Capitalization of Earnings Method
________	Discounted Cash Flow Method
________	Net Asset Value Method
________	Excess Earnings Method
________	Guideline Public Company Method
________	Merger & Acquisition Method
________	Guideline Transaction Method
________	Liquidation Method

[251] Exercise 2 Solution

[252] Exercise 3:

You have been retained to determine the fair market value of a very profitable "C" corporation having annual sales in the range of $25 to $30 million, which manufacture wood indoor furniture. Annual profits, as a percentage of sales, average around 16% over the last six years. Management is estimating profits to increase by 15% next year and 10% the following year before a short decrease due to supply chain issue that are expected to occur. Long-term sustainable sales growth is estimated at 3%. The reason for the valuation of the company is for a possible sale.

X	Method
______	Capitalization of Earnings Method
______	Discounted Cash Flow Method
______	Net Asset Value Method
______	Excess Earnings Method
______	Guideline Public Company Method
______	Merger & Acquisition Method
______	Guideline Transaction Method
______	Liquidation Method

[253] Exercise 3 Solution

[254] Exercise 4

A law firm hired you to value 1,000 shares of common stock the only shares issued and outstanding for divorce purposes. The attorney directed you to value the shares at fair market value. The restaurant supply business has been slightly profitable with modest annual sales increases over the past ten-years. Bottom line, the businesses profits have kept up with annual inflation. Future solvency is not a concern. The company maintains a high level of inventory for customers.

X	Method
______	Capitalization of Earnings Method
______	Discounted Cash Flow Method
______	Net Asset Value Method
______	Excess Earnings Method
______	Guideline Public Company Method
______	Merger & Acquisition Method
______	Guideline Transaction Method
______	Liquidation Method

[255] Exercise 4 Solution

Case Study

[256] Dr. Albert Nielsen is a sole practitioner offering a full range of services related to general dentistry. Dr. Nielsen works approximately 32 hours per week and at age 62 is considering reducing his hours. As such, he is contemplating a 40% equity partner with the idea of gradually reducing his ownership in the Practice. Dr. Nielsen would like to know the Practice's equity value for a 100% interest.

Dr. Nielsen formed the Practice in 2000 and relocated to a new medical arts office building in 2015. The practice signed an initial ten-year lease with a ten-year renewal option. There is approximately 1786 square feet of leased spaced which includes all costs (taxes, insurance, etc.).

The medical building was built in a new area prior to any residential construction in the immediate area. In that time, residential construction of middle-class homes in the area has been steady. Within a five-mile radius of the Practice, the community build out is estimated at 70% or 18,000 homes. Two competitors operate in the same market as Dr. Nielsen.

The Practice has five operatories all being equipped with x-ray equipment and computers - also the Practice has 1 panoramic x-ray unit. The Practice is staffed with (1) administration; (2) dental assistants; (2) hygienists and (1) doctor - all have been with the Practice a number of years.

Dr. Nielsen has seen steady growth in terms of sales over the past five years. The performance history of the Practice is summarized with special attention to selected line items. The year-end accounting period for tax reporting purposes is December 31st for each year.

	For Periods Ending December 31					Common-size as a % of Net Sales				
Income Statement	20X1	20X2	20X3	20X4	20X5	20X1	20X2	20X3	20X4	20X5
Net Sales	1,226,664	1,246,423	1,334,789	1,432,132	1,530,363	100.0	100.0	100.0	100.0	100.0
Cost of Goods	(416,197)	(437,983)	(452,085)	(532,727)	(546,261)	(33.9)	(35.1)	(33.9)	(37.2)	(35.7)
Gross Profit	810,467	808,440	882,704	899,405	984,102	66.1	64.9	66.1	62.8	64.3
Operating Expenses	(565,287)	(547,407)	(575,715)	(643,328)	(642,111)	(46.1)	(43.9)	(43.1)	(44.9)	(42.0)
Operating Income EBIT	245,180	261,033	306,989	256,077	341,991	20.0	20.9	23.0	17.9	22.3
Interest	(3,906)	(4,305)	(1,397)	(1,695)	(2,474)	(0.3)	(0.3)	(0.1)	(0.1)	(0.2)
Other Income (Expenses)	-	-	-	-	-	-	-	-	-	-
Pre-Tax Earnings	241,274	256,728	305,592	254,382	339,517	19.7	20.6	22.9	17.8	22.2
Selected Line Items										
Rent	47,078	51,951	48,836	48,545	61,037	3.8	4.2	3.7	3.4	4.0
General & Administrative	303,746	282,563	310,334	345,658	325,832	24.8	22.7	23.2	24.1	21.3
Depreciation Expense	15,236	16,395	17,714	46,318	26,022	1.2	1.3	1.3	3.2	1.7
Officer's Compensation	199,227	196,498	198,831	202,807	229,220	16.2	15.8	14.9	14.2	15.0
Total Operating Expenses	565,287	547,407	575,715	643,328	642,111	46.1	43.9	43.1	44.9	42.0

The following balance sheet information summarizes the Practice's assets and liabilities over the past five years.

Balance Sheet	For Periods Ending December 31					Common-size as a % of Total Assets				
Assets	20X1	20X2	20X3	20X4	20X5	20X1	20X2	20X3	20X4	20X5
Cash	15,076	25,627	32,734	36,094	33,063	13.2	20.9	27.5	25.2	22.8
Receivables	12,563	9,632	10,874	8,312	5,937	11.0	7.9	9.1	5.8	4.1
Inventory	1,289	1,681	1,479	890	1,189	1.1	1.4	1.2	0.6	0.8
Current Assets	28,928	36,940	45,087	45,296	40,189	25.3	30.1	37.9	31.7	27.7
Total Fixed Assets	335,085	351,798	357,759	427,933	460,851	293.1	286.8	300.5	299.0	318.0
Total Accum Depreciation	(249,689)	(266,084)	(283,798)	(330,116)	(356,138)	(218.4)	(216.9)	(238.4)	(230.7)	(245.8)
Net Fixed Assets	85,396	85,714	73,961	97,817	104,713	74.7	69.9	62.1	68.3	72.3
Total Assets	114,324	122,654	119,048	143,113	144,902	100.0	100.0	100.0	100.0	100.0
Liabilities										
Payables	17,906	13,891	10,945	16,413	12,987	15.7	11.3	9.2	11.5	9.0
Short-Term Debt	9,480	12,987	16,348	13,652	21,715	8.3	10.6	13.7	9.5	15.0
Current Liabilities	27,386	26,878	27,293	30,065	34,702	24.0	21.9	22.9	21.0	23.9
Long-Term Liabilities	75,386	88,785	61,579	66,214	91,256	65.9	72.4	51.7	46.3	63.0
Total Liabilities	102,772	115,663	88,872	96,279	125,958	89.9	94.3	74.7	67.3	86.9
Equity	11,552	6,991	30,176	46,834	18,944	10.1	5.7	25.3	32.7	13.1
Liabilities & Equity	114,324	122,654	119,048	143,113	144,902	100.0	100.0	100.0	100.0	100.0

The internal and industry comparative ratio analysis information is presented in the following table.

Item	*Formula*	20X1	20X2	20X3	20X4	20X5	Industry
Current Ratio	*Current Assets / Cur Liab.*	1.06	1.37	1.65	1.51	1.16	1.44
Long-term debt to total assets	*L-T Debt / Total Assets*	65.9%	72.4%	51.7%	46.3%	63.0%	31.5%
Total debt to total assets	*Total Debt / Total Assets*	89.9%	94.3%	74.7%	67.3%	86.9%	45.4%
Total Assets to Sales	*Total Assets / Annual Sales*	9.3%	9.8%	8.9%	10.0%	9.5%	10.8%
Operating Expenses to Sales	*Operating Expenses / Sales*	46.1%	43.9%	43.1%	44.9%	42.0%	52.8%
Depreciation to Sales	*Depreciation / Sales*	1.2%	1.3%	1.3%	3.2%	1.7%	1.2%

According to management, the Practice's revenues are forecasted to decrease next year by 10% due to economic reasons. After 20X6, Dr. Nielsen is optimistic net sales will return to the historical growth rate of approximately 6% annually.

The local economy is forecasted to slow in 20X6 slightly and then recover to a nominal growth rate of 2% - 3% annually. The dental profession, according to industry information, is forecasting sales to increase 2% growth rate 20X6 and a 4% - 6% annual growth rate over the next three to five years.

Normalized Adjustment Exercise:

Use the following worksheet to develop the Practice's historical normalized pre-tax earnings.

Assumptions:

- Rent expenditure is a combination of the annual lease and equipment rental. In 20X5, a short-term rental is classified as a non-recurring expense of $10,000.
- Section 179 accelerated depreciation expense in the amount of $20,000 was taken in 20X4. For business valuation purposes this was considered an unusual event.
- Owner's Compensation for a sole practitioner, according to industry data for general dentistry is 18% of net sales.

	20X1		20X2		20X3		20X4		20X5	
Net Sales	1,226,664	*100.0%*	1,246,423	*100.0%*	1,334,789	*100.0%*	1,432,132	*100.0%*	1,530,363	*100.0%*
Cost of Goods	(416,197)	*-33.9%*	(437,983)	*-35.1%*	(452,085)	*-33.9%*	(532,727)	*-37.2%*	(546,261)	*-35.7%*
Gross Profit	810,467	*66.1%*	808,440	*64.9%*	882,704	*66.1%*	899,405	*62.8%*	984,102	*64.3%*
Operating Expenses	(565,287)	*-46.1%*	(547,407)	*-43.9%*	(575,715)	*-43.1%*	(643,328)	*-44.9%*	(642,111)	*-42.0%*
Operating Income EBIT	245,180	*20.0%*	261,033	*20.9%*	306,989	*23.0%*	256,077	*17.9%*	341,991	*22.3%*
Interest	(3,906)	*-0.3%*	(4,305)	*-0.3%*	(1,397)	*-0.1%*	(1,695)	*-0.1%*	(2,474)	*-0.2%*
Pre-Tax Earnings	241,274	*19.7%*	256,728	*20.6%*	305,592	*22.9%*	254,382	*17.8%*	339,517	*22.2%*
					Normalized Adjustments					
Rent										
Depreciation										
Compensation										
Total Adjustments										
Normalized Pre-Tax Earnings										

Forecasted Net Income Exercise:

Using the information obtained from aforementioned narrative and normalizing the historical income statement to forecast net income for the next three years (see next page for worksheet).

Assumptions:

- Forecasted net sales was discussed earlier.
- Cost of goods is estimated by management at 35% of net sales.
- Operating expenses must be estimated by you and discuss your support.
- Forecasted interest expense for F1 $3,000; F2 $1,000; and F3 $500.
- Blended average tax rate is 28.0%.

	F1	F2	F3
Net Sales			
Cost of Goods			
Gross Profit			
Operating Expenses			
EBIT			
Interest			
Pre-Tax Earnings			
Tax Expense			
Forecasted Net Income			

What is your support for forecasted operating expenses?

Forecasted Net Cash Flow Exercise:

Use the information from the forecasted net income to develop net cash flow to equity for the Practice (see next page for worksheet).

Assumptions:

- Information regarding net changes in working capital is presented in the following table. H20X5 represents this most recent year prior to forecasting F1.

	H20X5	F1	F2	F3
Current Assets	40,189	26,574	29,635	31,568
Current Liabilities	34,702	13,245	17,896	12,852
	5,487	13,329	11,739	18,716
Net Changes in Working Capital		(7,842)	1,590	(6,977)

- To simplify the exercise, assume CapX will be 110% of depreciation expense.

- Long-term debt will increase in the first year of the forecast by $5,500, Year 2 the debt decreases by $2,500 and Year 3 long-term debt decreases by $1,200.

	F1	F2	F3
Forecasted Net Income			
Depreciation Expense*			
Capital Expenditures			
Net Changes in Working Capital			
Net Changes in Long-Term Debt			
Net Cash Flow to Equity			

Discuss support for your (*) assumptions:

Cost of Capital Exercise:

Question 1

Based on the analysis of the case study information, what are the major implications for the Practice?

Positive Implications

Negative Implications

Neutral Implications

Question 2

What is the most appropriate income method for estimating the fair market value of the Practice and why?

___

___

___

Question 3

Which earnings stream (equity or invested capital) will be used and why?

___

___

Question 4

Use the following case study information to develop an appropriate discount and capitalization rate.

Assumptions:

- Risk-free rate of return 2.6%
- Equity risk premium 6.7%
- Intangible asset rate 32.0%
- Size premium 6.6%
- Cost of debt 6.0%
- Long-term earnings growth rate 4.0%
- Mix of debt and equity 60% / 40%

Based on the aforementioned information, what equity discount and capitalization rate did you develop?

- Equity discount rate ____________________
- Equity capitalization rate ________________

What company-specific risk premium percentage did you select_______________ and why?

___

___

Question 5

Use the following worksheet to develop an indication of value for a 100% interest in the Practice.

Discounted Future Earnings Method - Equity Model				
Selected Year	Projected Net Cash Flow	Present Value Factor	Capitalization Rate	Present Value
F1				
F2				
F3				
Terminal Year				
			Indication of Value	

Adjusted Net Asset Value Method Exercise:

Use the following worksheet to normalize the balance sheet using these assumptions: FMV of:

(i) receivables $4,800; (ii) inventory $1,500; and (iii) fixed assets $375,000.

Balance Sheet			
Assets	2009	Adjustment	Normalized
Cash	33,063		
Receivables	5,937		
Inventory	1,189		
Current Assets	40,189		
Total Fixed Assets	460,851		
Total Accum Depreciation	(356,138)		
Net Fixed Assets	104,713		
Total Assets	144,902		
Liabilities			
Payables	12,987		
Short-Term Debt	21,715		
Current Liabilities	34,702		
Long-Term Liabilities	91,256		
Total Liabilities	125,958		
Equity	18,944		
Liabilities & Equity	144,902		

Question 6

What is the adjusted net asset value of equity after normalized adjustments? $_______________

Market Approach Exercise:

Question 7

Based upon the case study information and transactional market data (see next page) – what is the initial indication of value (prior to packaging adjustments) using the Guideline Transaction Method? Sales Measurement $ _______________ SDE Measurement $ _______________

Guideline Transaction Method	Sales	SDE
Practice's Selected Financial Measurements	___________	___________
Selected Market Valuation Multiple	___________	___________
Initial Indication of Value	___________	___________

Business Description	Annual Sales $000's	SDE $000's	SDE as % Sales	Sale Price $000's	Price/ Sales Multiples	Price/ SDE Multiples
Dental Practice	1,659	710	42.8%	1,500	0.90	2.11
Dentistry	1,428	511	35.8%	1,250	0.88	2.45
Dental	1,416	418	29.5%	1,200	0.85	2.87
Dentist, general	1,090	400	36.7%	900	0.83	2.25
Dentistry	1,300	571	43.9%	1,025	0.79	1.80
General Dental Practice	1,141	370	32.4%	830	0.73	2.25
General Dentist	1,023	308	30.1%	735	0.72	2.39
General Dentistry	1,096	415	37.9%	750	0.68	1.81
General Dentistry	1,040	278	26.7%	705	0.68	2.54
Dentistry	1,180	328	27.8%	790	0.67	2.41
Dentistry	1,048	204	19.5%	705	0.67	3.45
General Dentistry	1,065	239	22.4%	700	0.66	2.93
Dentistry	1,607	498	31.0%	1,000	0.62	2.01
General Dentistry	1,351	339	25.1%	825	0.61	2.43
Dentist	1,194	370	31.0%	725	0.61	1.96
General Dental Practice	1,079	462	42.8%	650	0.60	1.41
General Dentistry	1,000	292	29.2%	600	0.60	2.05
Dentistry	1,319	353	26.8%	760	0.58	2.15
General Dental Practice	1,447	310	21.4%	700	0.48	2.26
Count	*19*	*19*	*19*	*19*	*19*	*19*
Low	1,000	204	19.5%	600	0.48	1.41
High	1,659	710	43.9%	1,500	0.90	3.45
Mean	1,236	388	31.2%	861	0.69	2.29
Median	1,180	370	30.1%	760	0.67	2.25
				Standard Deviation	0.11	0.46
				Coefficient of Variation	0.16	0.20

Question 8

Use the following worksheet to develop the 100% "equity" value, after "packaging adjustments."

Guideline Transaction Method	Sales	SDE
Practice's Selected Financial Measurements		
Selected Market Valuation Multiple		
Initial Indication of Value		
Confidence Weightings		
Weighted Values		
Total Weighted Values from Selected Financial Measurements		
Packaging Adjustments		
Plus: Cash		
Plus: Accounts Receivable		
Less: Liabilities		
Indication of 100% Equity for a Controlling Interest, Closely Held Basis		

What is your support in selecting the weightings applied?________________________________

Question 9

Based upon your analysis of Dr. Nielsen DDS, what is your opinion of value?

Reconciliation of Indicated Values

Valuation Method	Interest and Basis Indicated by Method	Adjustments in Degree of Control	Adjustments in Degree of Marketability	Adjusted Value	Weighted Confidence Level	Weighted Component Value
Discounted Future Earnings	$ Interest / Basis	%	%	$ Interest / Basis	%	$
Guideline Transaction	$ Interest / Basis	%	%	$ Interest / Basis	%	$
Adjusted Net Asset	$ Interest / Basis	%	%	$ Interest / Basis	%	$
Initial Indication of Entity Value for a 100% Equity Value						$
Fair Market Value of a 100% Equity Interest on a Closely Held Basis *(Rounded)*						$

Appendix: A

Business Review Questionnaire

& Request of Documents

Company Name

Effective Date of Appraisal

Date Requested

Will keep and hold all information strictly confidential

PLEASE PROVIDE COPIES OF THE FOLLOWING DOCUMENTS

ALONG WITH THIS COMPLETED QUESTIONNAIRE

- Interim Financial Statement for the year-to-date period from the appraisal effective date.
  ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*
- Financial Statement for the prior trailing-twelve-month period from the appraisal effective date. ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*
- Aging reports on receivables and payables (as of the appraisal date or the closest date prior to the appraisal date). ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*
- Detailed depreciation schedule (as of the appraisal date or the closest date prior to the appraisal date). ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*
- Related party activities. (loans, leases, or other agreements between the business and any owner/shareholder or entities in which the owner/shareholder are principals).

  ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*
- Machinery & equipment appraisals. (if available) ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*
- Finance and lease agreements on any company asset(s) and real estate. ☐ *Supplied* ☐ *Not Supplied*
- Provide a copy of the organizational documents. ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*
- Provide any budget planning and/or financial projections. ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*
- Any prior business valuations (within the last five years). ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*
- Intellectual assets. (i.e.; intangible assets owned by the business such as patents, copyrights, trade names, etc. Include copies of the patent/copyright registration, cost to create, schedule of income/expenses and profits directly attributable to the item).

  ☐ *Supplied* ☐ *Not Supplied* ☐ *Not Available (N/A)*

Confidential Mailing Address: ____

Business Phone: (________) _________________________ Cell (________) _________________________

Instructions: This form is designed to obtain an understanding of the business being valued. The questions have been grouped into sections. Many of these questions are general in nature and some will not apply to your particular business. Answer only the questions that apply and if a question does not apply, place an "N/A" in the space; this informs us the question has not mistakenly been missed. Attach additional sheets if necessary.

Form of Organization

1. The business was *started* on *(insert date and addresses for each relocation of the Company)*:

   ____

2. Have there been any prior transactions in ownership over the last five years? ☐ Yes ☐ No

   If yes, please give details: ______________________________

3. **Currently**, the legal form is: ☐ Proprietorship ☐ General Partnership

   ☐ Limited Partnership ☐ Limited Liability Partnership ☐ "S" Corporation

   ☐ Regular Corporation ☐ Limited Liability Company

4. **Currently**, the name of the corporation/partnership/company is:

   ____

   If this is a change from the original legal form, please give the date (month/year) of the change to this legal form ______________________________

5. The business name, if different than the legal name above:

   ____

6. Date of formation: ______________________________

   State registered domicile: ______________________________

   Number of common shares authorized: ______________ Par value: ______________

   Number of shares issued and outstanding: ______________________________

Interest Owners/ Shareholders

7. Provide the requested information on all owners: In the sentence asking "percentage of time allocated" please use the following as an example only.

Example:

Task	Allocated Time %	Proficiency
Bookkeeper	25.0%	Avg.
Cost Estimator	10.0%	Above Avg
Sales Representative	15.0%	Below Avg
Chief Executive	30.0%	Low
Operations Manager	20.0%	High
Total	100.0%	

Name ____ Title ______________________

W-2 wages for years 20XX-20XX (either provided copies of form W-2 or complete the following):

$ ____

Hours worked per year (best estimate)

____

(if applicable) Relationship to owner(s) _______________ Owns ______% of Company. Employed under Contract? ☐ Yes ☐ No Highest Education Level Completed _____________

Current Age ___________ Any health issues? ☐ Yes ☐ No If yes, explain

____

Other Benefits: Car; Medical/Dental/Life/Disability Insurance; Club Dues; Travel, etc.) Indicate which benefit and the ***monthly cost*** for each.

____

Percentage of time allocated to position and description of job duties. (e.g.; 25% CEO, 5% CFO, 15% manager; 40% sales, 25% handle all billing A/P, A/R, P/R, etc.)

Task	Time %	Proficiency

8. Discuss the Company's owners/officers (education, experience, etc.).

____
____
____
____
____
____

Key Employees / Management

(do not include owner's/officer's information in this section)

Name ________________________ Approx. hrs. per yr. _______ Salary/Hourly Wage

$_________ Position ______________________ Date Hired ____________ Relationship to control owner ____________ Employed under Contract? ☐ Yes ☐ No Other Benefits: Car; Medical/Dental/Life/Disability Insurance; Club Dues; Travel, etc.) Indicate which benefit and the monthly cost for each:

____

Percentage of Time Allocated to Position (e.g.; 15% management; 40% sales, etc.)

____

Name ________________________ Approx. hrs. per yr. _______ Salary/Hourly Wage

$_________ Position ______________________ Date Hired ____________ Relationship to control owner ____________ Employed under Contract? ☐ Yes ☐ No Other Benefits: Car; Medical/Dental/Life/Disability Insurance; Club Dues; Travel, etc.) Indicate which benefit and the monthly cost for each:

____

Percentage of Time Allocated to Position (e.g.; 15% management; 40% sales, etc.)

____

Name ________________________ Approx. hrs. per yr. _______ Salary/Hourly Wage

$_________ Position ______________________ Date Hired ____________ Relationship to control owner ____________ Employed under Contract? ☐ Yes ☐ No Other Benefits: Car; Medical/Dental/Life/Disability Insurance; Club Dues; Travel, etc.) Indicate which benefit and the monthly cost for each:

____

____

Percentage of Time Allocated to Position (e.g.; 15% management; 40% sales, etc.)

____

9. How many total employees (**including** owners/officers) does the Company have? ___________

10. Do **key employees** receive the same type of medical/dental/disability/life insurance benefits as are paid for the officers/owners? ☐ Yes ☐ No If no, who receives different insurance and/or fringe benefits:

____

____

11. Are there any known related parties that the Company does business with *(subsidiaries, affiliates, family members or relatives)*? ☐ Yes ☐ No If yes, please discuss below.

Name	Relationship

12. Does the Company employ any relatives or favored people who receive compensation from the business without working or who are at a level of compensation that is greater than what you would pay an unrelated/unfavorable worker? ☐ Yes ☐ No If yes, please state the name, date hired, number of hours typically worked per week, earnings, fringe benefits, and an estimate of what you would pay someone else to do the same job.

____

____

13. *(if applicable)* Are there any employment contracts and non-compete agreements between the Company and personnel? ☐ Yes ☐ No If yes, are there any employment contracts and non-compete agreements that will expire in the next 3 years. ☐ Yes ☐ No If yes, who?

____

14. Do any employees have any special or unique skills used in the business (e.g., professional designations or degrees, awards, etc.)? ☐ Yes ☐ No

    If yes, please enter who and what.

____

____

____

15. How easily can officers/management be replaced (*i.e., is there one or a few key personnel on which the success of the business depends that cannot be easily replaced*)?

____

____

16. Are any members of management or any employees expecting a material change in their compensation, benefits or position? ☐ Yes ☐ No If yes, give details: Who, what, when and why.

____

17. Does the Company anticipate any shortage of competent applicants for any of its routine positions? ☐ Yes ☐ No If yes, explain below.

____

18. Any reason to believe that any members of management or the employees referenced in this questionnaire will be leaving the Company in the near future? ☐ Yes ☐ No If yes, who, when and why?

____

19. Are there established written policies regarding starting pay, eligibility for raises, fringe benefits eligibility, vacation and sick leave policies, promotion eligibility, etc.? ☐ Yes ☐ No

20. Does the Company consider the pay and benefits provided to all non-shareholder employees to be competitive in the marketplace and roughly equivalent to that offered by your competitors? ☐ Yes ☐ No *If no, explain: (i) whether pay and benefits are more or less than that paid by your competitors; (ii) what the Company feels is typically paid by your competitors; and (iii) why is pay and benefits inconsistent with the competition.*

____

21. *(if applicable)* Describe the Company's organization structure. (Attach organization chart, if available.)

____

22. *(if applicable)* Do you anticipate a portion of your workforce will continue to work remotely? ☐ Yes ☐ No If yes, what percentage for 202X _____% 202X _____% 202X _____%
23. *(if applicable)* Provide an estimate as to how much expense the Company has incurred to comply with Federal and State requirements on COVID-19 safe workplaces for the following years:

    20X1 $ ___________ 20X2 $ ______________ 20X3 $ ___________ 20X4 $ ____________
24. Are there any other matters regarding labor (owner(s)/management/employees) about which we should be familiar with? ☐ Yes ☐ No If yes, provide details.

____

Sales and Marketing

25. Explain the Company's primary product(s)/service(s). Please include approximate percentage of all revenues received from each. (*total should equal 100%)*

Product/Service	Approximate % of Revenues
____	__________
____	__________
____	__________
____	__________

26. *(if applicable)* Description of the Company's products or services:

____

27. *(if applicable)* How are the products or services used?

____

Which product line(s) or service(s) are growing fastest and why?

____

The slowest and why? ____

28. Are the product(s)/service(s) proprietary? ☐ Yes ☐ No If yes please explain:

____

29. *(if applicable)* Does the Company have patents, trademarks, technology, or expertise that may prevent others from copying the products? ☐ Yes ☐ No If yes please explain:

____

30. What economic factors (inflation, interest rates, etc.) affect sales?

____

31. Does the quantity of business fluctuate during the year? ☐ Yes ☐ No If yes, give details as to which months, quarters, seasons, etc. are slower and faster. Indicate approximate percentage of the year's total revenues that are received in the slow and fast seasons.

The busiest months are ____

During which we do approximately __________% of our total annual sales.

The slowest months are ____

During which we do approximately ___________% of our total annual sales.

32. Does business fluctuate with or rely on any other industry? ☐ Yes ☐ No If yes, what industry? (*please name the industry(ies) and why your revenues fluctuate with each*).

____

33. How does the Company market its business? Please include approximate percentage of all business received from each (*should equal 100%*):

Advertising	______%	Direct Mail Soliciting	______%
Phone Canvassing	______%	Referrals	______%
Repeat Customers	______%	Other: __________	______%
Other: __________	______%	Other: __________	______%

34. Does the Company use: (*check those used, and indicate the number employed as of the date we are appraising the Company; also indicate the approximate percentage of the Company's total sales that are generated by each category*.)

☐ Inside Salespeople	# employed ____	generate approx. ____% of total sales
☐ Outside Salespeople	# employed ____	generate approx. ____% of total sales
☐ Independent Contractor	# employed ____	generate approx. ____% of total sales
☐ Manufacturers' Reps	# employed ____	generate approx. ____% of total sales
☐ Owners	# employed ____	generate approx. ____% of total sales
☐ Other __________________	# employed____	generate approx. ____% of total sales

35. *(if applicable)* Do you use independent contractors/manufactures' reps in generating sales? ☐ Yes ☐ No If yes, provide details:

____

36. *(if applicable)* How are sales people compensated?

____

37. *(if applicable)* Are there commissions or other forms of payment, which, will be due to salespeople or others contingent upon collection of the receivables? ☐ Yes ☐ No if yes, please provide details:

____

38. Who are the Company's primary customers (e.g., consumer, industry, government)?

____

____

39. Please give the name and location of the Company's 3-5 major customers/clients, along with the numbers of years doing business together and the approximate percentage of the Company's total business obtained from each for the most recent twelve months:

Name/Location	Years	% of Business

40. With respect to customer turnover, typically how long does a **new** customer remain a customer?

☐ one sale only ☐ 1 year ☐ 1-3 years ☐ 3-5 years ☐ 5-7 years

☐ longer; specify ______________________________

41. What approximate percentage of the Company's total business and sales come from within the (*should equal 100%*):

City/County______% State ______% USA ______% International ______%

42. Who are the Company's three-to-five major competitors?

Name/City/State	Larger/Smaller

43. What are the *major strengths* the Company has versus aforementioned competitors?

____

____

44. What are the *major weaknesses* the Company has versus aforementioned competitors?

____

____

45. Does the Company anticipate meaningful changes in the aforementioned competitors?

☐ Yes ☐ No If yes, provide details:

____

____

46. Are there any industry technology trends that may affect Company value (good or bad)?

☐ Yes ☐ No If yes, provide details:

____

____

47. What is the market area for the business and what determines its size?

____

48. How fragmented is the market? ______________________________

49. Is the market growing or shrinking? ____________________________

50. (*if applicable*) What distribution channels does the company use (direct sales, distributors, retailers, Internet, etc.)?

____

____

51. (*if applicable*) What percent of sales are obtained from bids? _______________

52. How are pricing policies determined?

____

____

53. To what degree do competitors' prices affect Company policy?

____

54. What is the key selling feature—*product, price, service, brand name, packaging, etc*.?

____

55. In management's opinion, what are the barriers to entry in your industry?

____

____

____

____

____

____

56. Does the Company offer and carry sales on credit (i.e., accounts receivables)? ☐ Yes ☐ No

If yes, what is the approximate percentage of:

Cash Sales _____% + Credit Sales _____% (*should equal 100%*)

(if applicable) What are the Company's sales and credit terms?

____

Company Specifics

57. In your own words, please provide a brief history of the business (very important):

____

____

____

58. What are the Company's normal operating days and hours?

    ____

59. *(if applicable)* How many shifts and days per week does the Company operate?

    ____

60. *(if applicable)* Discuss backlog of work?

    ____

61. Are buildings owned? ☐ Yes ☐ No or leased/rent? ☐ Yes ☐ No

    Are lease/rent payments made to a related party to any of the owners of the Company? ☐ Yes ☐ No If no, please provide the name(s) pertaining to the entity payment is made to:

    ____

    If leased/rented, current monthly rent: ______________________________

    Leased/Rented Space (square footage) by years:

    ____

    Does the Company have a signed lease/rent agreement? ☐ Yes ☐ No

    Does rent/lease include:

    Insurance, ☐ Yes ☐ No

    Maintenance costs ☐ Yes ☐ No

    Property Taxes? ☐ Yes ☐ No

62. *(if applicable)* Do you plan on downsizing your current square footage due to COVID-19? ☐ Yes ☐ No If yes, please discuss and provide an estimate of:

    lease/rented space

    ____

    timing of downsize

    ____

    other savings

    ____

63. Any other information about the lease/rent that we should be made aware of? ☐ Yes ☐ No If yes, please explain.

    ____

    ____

64. How old are the Company's offices and/or manufacturing facilities *(for each location)*?

65. What is the facilities capacity (in terms of %), relative to current operating levels?

66. Might sales be constrained by inadequate capacity? ☐ Yes ☐ No If yes, please provide details.

67. Is there excess capacity or excessive fixed overhead costs? ☐ Yes ☐ No If yes, please explain.

68. *(if applicable)* Is there any inefficient or obsolete equipment? ☐ Yes ☐ No If yes, provide details:

69. *(if applicable)* When is the equipment likely to be replaced?

70. *(if applicable)* What is the likelihood of major repairs to the equipment?

71. Are any suppliers the sole source? ☐ Yes ☐ No If yes, provide details:

72. Have there been any major problems in getting raw materials? ☐ Yes ☐ No If yes, provide details:

73. *(if applicable)* Does the Company have difficulties complying with environmental regulations? ☐ Yes ☐ No If yes, please explain.

74. (*if applicable*) Are there any federal or state regulations affecting the Company's operations? ☐ Yes ☐ No If yes, please explain.

75. Have there been any written or oral offers to purchase the Company in the last five years. ☐ Yes ☐ No If yes, please explain.

76. *(if applicable)* Do you anticipate any meaningful changes in international competition?

    ☐ Yes ☐ No If yes, please provide appropriate details.

Financial

77. What is the Company's policy regarding the write off of uncollectable? Give specific points of decision – when, why, etc.

 ____

78. Estimate of credit sales that are not collected in a typical year? ________%

79. The Coronavirus Aid, Relief and Economic Security (CARES) Act was enacted by Congress on March 27, 2020. The valuation (effective_ date is important because of the "known or knowable" concept in business valuation. The information known about the virus as of a specific date will likely be the subject of debate. Information about the virus can likely be segmented into two categories[21]: (i) its existence and; (ii) the date upon which it affected the U.S. economy.

 Below are questions pertaining to:

 a) Did you apply for ☐ PPP (Paycheck Protection Program) ☐ EIDL (Economic Injury Disaster Loan) ☐ EEIG (emergency Economic Injury Grant) or ☐ SBDRP (Small Business Debt Relief Program)?
 b) Was the loan funded? ☐ Yes ☐ No If yes, what was the amount $_________________

 c) Many of the loans are forgivable, do you anticipate the "entire" loan to be excused?

 ☐ Yes ☐ No If no, what percentages do you believe will not be excused?

 ☐ 10% to 20%

 ☐ 20% to 40%

 ☐ 40% to 60%

 ☐ 60% to 80%

 ☐ 80% to 100%

 ☐ Other: ______________________________

80. The following pertains to the Company's historical income statements. Our questions are………..

 a) Are there any pre-paid expenses?

 ____

 b) Are there any accelerated expenses paid in a given year?

 ____

[21] Those represent at least two different dates that appraiser will need to consider in developing assumption within the valuation report itself and justifying or supporting the appraiser's logic.

c) Can you explain the differences in "service wages" for the yellow highlighted years?

____

Source:	Income Statement					
	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Months of Operations in Year	*12*	*12*	*12*	*12*	*12*	*6*
Gross Sales	595,929	712,774	613,321	739,203	744,453	
Cost of Goods	(117,937)	(168,168)	(147,914)	(157,768)	(164,117)	
Gross Profit	477,992	544,606	465,407	581,435	580,336	-
Operating Expenses	(428,025)	(432,296)	(455,676)	(477,950)	(470,707)	-
Operating Earnings (EBIT)	49,967	112,310	9,730	103,486	109,629	-
Interest Income (Expenses)		-	(1,326)	(4,470)	(1,909)	
Other Income (Expenses)	-	-	-	-	-	-
Pre-Tax Earnings	49,967	112,310	8,404	99,016	107,720	-
Selected Operating Expense Line Items						
Advertising	40,479	49,828	60,606	59,869	58,063	
Bad Debts	-	-	-	-	-	
Management/Office Salaries	82,442	76,275	111,024	70,994	74,872	
Pension, Profit Sharing, Annuity						
Rent	24,000	20,000	23,000	22,000	24,000	
Repairs/Maintenance	23,372	38,947	45,912	35,974	55,410	
Depreciation	28,240	21,753	21,009	34,385	23,236	
Amortization	220	220	73	-	-	
Service Wages	74,186	77,426	58,247	108,244	104,629	
Payroll Tax Expenses	13,395	12,340	13,252	14,334	13,868	
Travel/Meals/Entertainment	5,108	3,915	1,831	3,815	2,925	
Insurance	18,411	11,770	12,660	15,274	17,784	
Insurance -Workers Comp	-	5,331	3,630	7,784	7,275	
Insurance - Health	9,256	10,069	10,538	12,726	15,718	
Utilities	1,251	1,093	1,240	1,517	1,641	
Telephone	8,854	10,403	11,530	11,057	9,291	
Taxes and License	5,330	5,143	5,559	6,325	3,583	
Office Expenses	7,071	7,204	6,413	5,771	3,638	
Supplies	27,063	20,073	13,660	19,444	13,066	
Legal & Professional Fees	3,350	7,559	3,963	5,860	4,324	
Vehicle Gas/Oil	42,238	41,222	42,231	32,411	28,607	
Misc	13,759	11,725	9,298	10,166	8,777	
Operating Expenses	428,025	432,296	455,676	477,950	470,707	-

81. Please use the following table to list any non-business related, nonrecurring or extraordinary income/expenses that reduced or increased the businesses income for the most recent five-years *(this information is used only for business valuation purposes)*.

Line	Description of Expense	Year___	Year___	Year___	Year___	Year___
a:	____________________	$______	$______	$______	$______	$______
b:	____________________	$______	$______	$______	$______	$______
c:	____________________	$______	$______	$______	$______	$______
d:	____________________	$______	$______	$______	$______	$______
e:	____________________	$______	$______	$______	$______	$______
f:	____________________	$______	$______	$______	$______	$______
g:	____________________	$______	$______	$______	$______	$______
h:	____________________	$______	$______	$______	$______	$______

We need to be able to explain in the valuation report why these adjustments are being made. Please explain each in detail on the following lines. Add additional paper if needed.

a.____

b.____

c.____

d.____

e.____

f.____

g.____

h.____

82. Are there any unusual matters, noted in reviewing the Company’s financial statements/tax returns, which may affect this valuation engagement? ☐ Yes ☐ No If yes, please explain

____

____

83. Is there any other information about the fluctuations in sales and or expenses that you believe we should be aware of? ☐ Yes ☐ No If yes, please explain.

____

____

84. The following pertains to the Company’s balance sheets. Our questions are……….

    a) Does the Company carry any receivables or inventory? ☐ Yes ☐ No If yes, how much for receivables (as of the valuation date) $ __________________ and how much inventory$_____________

    b) *(if applicable)* Does the Company hold any obsolete or otherwise unsalable inventory? ☐ Yes ☐ No If yes, provide details as to type, why, approximate value and the plans to dispose of same.

    ____

    ____

    c) Will any liabilities transfer to the new owner? ☐ Yes ☐ No If yes, please provide a detail explanation of liabilities that will remain on the balance sheet.

Source:	*Income Statement*					
	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Months of Operations in Year	*12*	*12*	*12*	*12*	*12*	*6*
Assets						
Cash	41,333	96,321	11,771	33,380	16,511	
Receivables	-	-	-	-	-	-
Inventory	-	-	-	-	-	-
Other	-	-	-	-	-	-
Total Current Assets	41,333	96,321	11,771	33,380	16,511	-
Total FF&E Assets	486,723	500,641	563,319	569,440	576,969	
Total Accum Depreciation	(444,027)	(465,780)	(473,789)	(508,174)	(531,410)	
Net FF&E Assets	42,696	34,861	89,530	61,266	45,559	-
Intangible Assets (net)	-	-	-	-	-	-
Other	293	73	-	-	-	-
Total Assets	84,322	131,255	101,301	94,646	62,070	-
Liabilities & Equity						
Short Term Debt	6,342	10,402	27,927	8,836	12,444	
Payables	1,912	3,087	3,282	2,543	2,873	
Other	(252)	-	-	-	-	
Total Current Liabilities	8,002	13,489	31,209	11,380	15,318	-
Long Term Debt	-	-	42,903	35,032	25,297	
Loans from Shareholders	-	-	-	-	-	
Other	-	-	-	-	-	
Total Long Term Liabilities	-	-	42,903	35,032	25,297	-
Total Liabilities	8,002	13,489	74,112	46,412	40,615	-
Stockholder's Equity						
Accumulated Adj. Account	118,559	59,521	100,966	10,390	48,235	
Shareholder Distributions	(109,006)	(70,864)	(98,981)	(77,971)	(134,500)	
Additional Paid in Capital	16,799	16,799	16,799	16,799	-	
Pre-Tax Earnings	49,967	112,310	8,404	99,016	107,720	
Other	-	-	-	-	-	-
Total Equity/Capital (Net Worth)	76,319	117,766	27,188	48,234	21,455	-

85. Are there any vehicles, equipment, fixtures, etc. that are in good working condition and owned by the business but are <u>not</u> used actively in the business and are <u>not needed</u> to continue to do the Company's current sales and profit volume? ☐ Yes ☐ No If yes, please list them below.

____

____

86. Are there any plans for major capital expenditures *(fixed asset purchases)*? ☐ Yes ☐ No If yes, provide details: *(how they will be financed, and how much represents expansion versus replacement of existing assets).*

____

87. Are there any contingent liabilities, including lawsuits and pending or threatened litigation? ☐ Yes ☐ No If yes, provide details:

____

88. What are the Company's current borrowing rates?

Short Term Interest Rates (less than one-year) _________%

Long Term Interest Rates (more than one-year) ________%

89. Are there any non-operating assets, such as aircraft, boats, and real estate investments, and any intangible assets of the business that are not reflected in the Company's balance sheet? ☐ Yes ☐ No If yes, please explain

____

Company Sales & Profit Expectations

90. What impact has COVID-19 had on:
    a) Current sales and near future sales?

    ____

    b) Operating expenses?

    ____

    c) Market conditions?

    ____

    d) Supply chains (i.e., costs, delivery times, etc.)?

    ____

    e) Employee productivity?

    ____

91. Do you expect the Company's future **sales and profits** to:

    Estimate the percentage you expect **sales** to increase or decrease:

    Current Year 'X1 ______% Next Year ______% Average Per Year Over Next 3-5 Years ______%

    Estimate the percentage you expect **profits** to increase or decrease:

    Current Year 'X1 ______% Next Year _______% Average Per Year Over Next 3-5 Years ______%

92. In comparison to your competitors and industry, do you consider the **sales** increases or decreases you have forecasted to be: ☐ Faster ☐ Slower ☐ About the Same

93. In comparison to your competitors and industry, do you consider the **profitability** increases or decreases you have forecasted to be: ☐ Faster ☐ Slower ☐ About the Same

Company Forecast

94. Does the Company prepare forecasts of sales, production, capital expenditures or earnings? ☐ Yes ☐ No If yes, please provide copies of the forecasts for the prior three years and all future years for which forecasts have been prepared. If no, please use the following:

    a) The projections have a large impact on the valuation of the Company; they may or may not be used in developing an indication of value. We show the historical information as a base in order to make good and likely projections of the future.
    b) *Steps in your assumptions and input:*
        1. Make projections of future sales by looking at historical values – In this example the business has had an **annual sales growth**. This is normally a good measure for future estimates. However, this may change due to other reasons, for example a downturn in the economy or change of product/service lines.
        2. Projections for cost of goods and operating expenses are presented as a percentage of sales, which is different from future sales growth (see above) look at historical values.

3. Interest expense can be related to anything, this line it typically tied to interest bearing loans.
4. Pre-tax earnings may produce a positive amount but may also show a negative figure for that particular year. If the aforementioned lines (after calculating) produce a significantly higher pre-tax earnings amount, we will be asking why and how this is going to be achievable.

	Actual						Forecasted Period				
	2012	2013	2014	2015	2016	Average Annual %	2017	2018	2019	2020	2021
Gross Sales	5,604,510	5,491,867	6,405,217	7,571,754	10,357,446						
Annual % Growth		*-2.1%*	*14.3%*	*15.4%*	*26.9%*	*13.6%*					
Cost of Goods	(3,763,719)	(3,763,719)	(3,763,719)	(4,763,719)	(6,763,719)						
COG as a % of Sales	*-67.2%*	*-68.5%*	*-58.8%*	*-62.9%*	*-65.3%*	*-63.9%*					
Gross Profit	1,840,791	1,728,148	2,641,498	2,808,035	3,593,727						
Operating Expenses	(1,814,415)	(1,692,375)	(1,847,767)	(1,898,279)	(2,949,236)						
Operating Expenses as a % of Sales	*-32.4%*	*-30.8%*	*-28.8%*	*-25.1%*	*-28.5%*	*-28.3%*					
Earnings before Interest & Taxes	26,376	35,773	793,731	909,756	644,491						
EBIT as a % of Sales	*0.5%*	*0.7%*	*12.4%*	*12.0%*	*6.2%*	*7.8%*					
Interest Income (Expenses)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)						
Other Income (Expenses)	-	-	-	-	-						
Pre-Tax Earnings	25,376	34,773	792,731	908,756	643,491						
Pre-Tax Earnings as a % of Sales	*0.5%*	*0.6%*	*12.4%*	*12.0%*	*6.2%*	*7.8%*					

95. Any other comments regarding future? ☐ Yes ☐ No If yes, provide particulars.

____

96. Describe relevant past and expected future trends for the Company, such as growth patterns, expansion or cutbacks of business segments, possible spin-offs, mergers or acquisitions that may affect this valuation assignment.

____

Comments and Observations

97. SWOT analysis is a tool for identifying the Strengths, Weaknesses, Opportunities and Threats of a particular business model. *Consider this from your point of view and that of others. Be realistic, but not modest. In order to become familiar with your particular business matrix, please answer the following:*

Internal Strengths

Strengths describe the positive tangible and intangible attributes, internal to the organization. They are within management's control. What does the organization do well? What resources does management have? What advantages does the Company have over competition? Strengths capture the positive aspects internal to the organization that add value or offer a competitive advantage.

What is golden about the business?

____

What does the Company do well (in sales, marketing, operations, management)?

____

What are the business's most valuable assets?

Does the Company have a good reputation with customers/clients? ☐ Yes ☐ No

Give Details

Does the Company have strong brand recognition within the market place? ☐ Yes ☐ No *Give Details*

Does the Company have any cost advantages? ☐ Yes ☐ No If yes explain

Where is the Company making the most money?

Does the Company have processes or systems in place? If yes, please explain.

What do people in the market place see as the Company's strengths?

Internal Weaknesses

Weaknesses are factors that are within your control that detract from your ability to obtain or maintain a competitive edge. Which areas might you improve upon? Weaknesses might include lack of expertise, limited resources, lack of access to skills or technology, inferior service offerings, or the poor location of your business. These are factors that are under your control, but for a variety of reasons, are in need of improvement to effectively accomplish your marketing objectives.

What looks a bit rusty inside the Company?

What does the Company lack (poor quality of goods or services, marketing, accounting, planning, etc.)?

Where does the Company lack resources?

What can the Company do better?

Where is the Company losing money?

What are people in your market likely to see as weaknesses?

What is your Company's major weakness versus your industry as a whole?

What should be avoided in the future?

External Opportunities

Opportunities assess the external attractive factors that represent the reason for the business to exist and prosper. These are external to the business. These opportunities reflect the potential that can realize through implementing marketing strategies. Opportunities may be the result of market growth, lifestyle changes, resolution of problems associated with current situations, positive market perceptions about the organization or the ability to offer greater value that will create a demand for your services.

What new needs of customers/clients could the Company met?

Where are there good opportunities facing the Company?

What are the economic trends that might benefit the Company?

What are the technological breakthroughs that could be used by management?

What niches have competitors missed?

What are the Company's competitors doing better? *In what specific areas?*

External Threats

A threat is created by an unfavorable trend or development that may lead to deteriorating of future revenues or profits. Competition (existing or potential) is always a threat; however other treats may include intolerable price increases by suppliers, government regulations, economic conditions or devastating media coverage, also a shift in consumer behavior that might reduce future revenues or profits.

Where are the *red alerts* in the Company's environment?

____

What obstacles does the business face?

____

What are the negative economic trends?

____

What are the negative industry trends?

____

Where are competitors about to bite the Company?

____

Where is the Company most vulnerable?

____

Any other information regarding SWOT analysis we should be aware of? ☐ Yes ☐ No If yes explain:

____

98. Please provide the name and address of any local, state or federal trade associations that represent your industry *whether or not* you are a member. Please indicate those organizations of which you are a member.

Member	YesNo
____________________________________	☐☐
____________________________________	☐☐

99. As of the valuation date, were there future imminent changes *known or anticipated which had not yet occurred?* ☐ Yes ☐ No If yes, provide what, when, how known or anticipated.

____

100. Are there other matters about which we should be informed? ☐ Yes ☐ No If yes, please discuss or attach the relevant documents.