

BUSINESS VALUATION FUNDAMENTALS FOR THE NON- VALUATION EXPERT

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BUSINESS VALUATION

I. Why Businesses Are Appraised

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

- Mergers and Acquisitions
- Allocation of Purchase Price
- Estate and Gift Taxes
- Marital Dissolution
- Employee Stock Ownership Plans
- Liquidation or Reorganization of a Business
- Buy-Sell Agreements
- Stockholder Disputes
- Financing
- Ad Valorem Taxes
- Incentive Stock Options
- Initial Public Offering
- Damages Litigation
- Insurance Claims
- Charitable Contributions
- Eminent Domain Actions
- Financial Reporting

Mergers and Acquisitions. Business valuations are frequently performed when one company acquires another company or when a company is targeted for an acquisition. The transactions may include entire or partial acquisitions or divestitures. Mergers will generally require both companies to be valued while an acquisition may only require a single valuation. The terms of the transaction generally include cash, notes, stock, or a combination of these forms of payment.

Allocation of Purchase Price. Internal Revenue Code Section 1060 requires that, when a business is acquired, a valuation must be performed to support the allocation of the total purchase price to the component parts for income tax purposes. In prior years, both the purchaser and seller would determine its own value and treat the purchase and sale of the assets differently. However, the Tax Reform Act of 1986 requires a uniform allocation of the purchase price based on an appraisal of the underlying assets.

Estate and Gift Taxes. The valuation of a closely-held business interest is important to estate planners as they consider the impact of the unified estate and gift tax credit on lifetime transfers of property. Appraisers should consult the appropriate Internal Revenue Code (IRC) sections for specifics on the unified estate and gift tax credit.

Marital Dissolution. In a marital dissolution, most of a couple's assets and liabilities are valued regardless of whether a state follows equitable distribution or community property rules. Frequently, one of the assets included in the marital estate is an interest in a closely-held business. It is typical to have the business valued in its entirety if it is a small business, but sometimes only a portion of the business would be valued (minority interest) in a large business. Usually, the business is not divided between the spouses. Instead,

one spouse keeps the business and the other receives different assets of equal value as distribution.

Employee Stock Ownership Plans. An employee stock ownership plan (ESOP) is an incentive ownership arrangement funded by the employer. Generally, employer stock is contributed instead of cash. ESOPs provide capital, liquidity, and certain tax advantages for private companies whose owners do not want to go public. An independent valuer must value the employer's securities at least annually and determine the price per share to support transactions with participants, plan contributions, and allocations within the ESOP.

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

Buy-Sell Agreements. A buy-sell agreement allows a partner or stockholder in a closely-held business to acquire the interest of a partner or stockholder who withdraws from the business. The agreement may contain a designated amount or a formula to determine the price that the remaining owners of the entity will pay to acquire the interest. The amount or the formula needs to be updated periodically. Payment terms and conditions of sale are also generally provided.

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

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

In such cases, the value of the stockholder's interest is what it was immediately before the change and does not reflect the effect of the proposed change on the value of the corporation. In these instances, value is generally determined according to the standard of fair value based on case law within the state of incorporation.

Financing. A valuation of the business may provide a lender or potential investors with information that will help the client obtain additional funds. Financial statements present information about a business based on historical amounts. For a new business, the

traditional statement may closely reflect estimated current value. However, this is generally not the case for an established business that has developed intangible value over the years. Assets with intangible value, such as special trademarks, patents, customer lists, and goodwill, may not be reflected in the financial statements. Furthermore, other assets and liabilities of the business, such as real estate and equipment, may be worth significantly more or less than their book value as recorded under GAAP.

Ad Valorem Taxes. In some jurisdictions, ad valorem taxes are based on the value of property used in a trade or business. Various entities are subject to ad valorem taxation, and, therefore, the fair market value of such properties frequently must be determined to ascertain the amount of tax. Regulations and case law differ significantly from jurisdiction to jurisdiction.

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

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

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

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

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

Charitable Contributions. Owners of closely-held businesses may wish to give all or part of their interest in a business to a favorite charity. Although shares of stock in a closely-held business are donated to charity infrequently, this option exists for owners, and the appraiser must be aware of the rules about the deductibility of such gifts. Current tax laws encourage charitable donations by permitting a tax deduction equal to the fair market value of certain appreciated capital gains property. For gifts of property in excess of \$500, the IRS requires that donors provide documentation to support the deduction for the year in which the gift was given. If the amount of the tax deduction warrants the expense, donors can obtain a valuation of the gift. If the value of the gift exceeds \$5,000, an appraisal is required.

Eminent Domain Actions. An eminent domain action takes place when government exercises its right to take over property and must compensate the owner for any resulting reduction in the value of the property. For example, a business may have to forfeit a prime location to accommodate the widening of a street. Although the business can relocate, its value may be adversely affected during the period of the move or as a result of changing locations. An expert opinion on the monetary impact of the condemnation may be necessary to support the business owner's claim or the government's offer.

Financial Reporting. Under FAS 141 and 142, rather than amortizing goodwill, the good will must be tested for impairment and if found to be impaired, the impaired amount must be written off. This requires the valuation of the company's reporting segments, and then if necessary, all identifiable assets and liabilities.

II. Why is the Business Purpose Important?

The purpose of the valuation impacts the valuation process. For example, if a minority interest is being valued, certain adjustments may not be made to the company's financial statements because the minority interest cannot legally effectuate such an adjustment. Also, valuations performed for divorce may have case law restrictions that must be considered, e.g., separating professional goodwill from practice goodwill in a divorce litigation.

III. Principles of Appraisal

There are three main appraisal principles that comprise the foundation of valuation theory. Each of these principles are as important to valuation as the laws of supply and demand are to economics. These very important principles include:

The Principle of Alternatives,
The Principle of Substitution, and
The Principle of Future Benefits.

The Principle of Alternatives. The Principle of Alternatives states that in any contemplated transaction, each party has alternatives to consummating the transaction.¹ This indicates that there are generally alternatives to the investment. In Basic Business Appraisal, Miles points out that:

...because it is one of the fundamental principles that form the basis of almost all appraisals, including those under circumstances that do not actually involve a contemplated sale or other transaction, the appraiser needs to be aware of its existence.²

Principle of Substitution. The Principle of Substitution is a presupposition of appraisal practice, expressing a generalized prediction concerned with behavior related to an event, involving economic choices and values. It predicts how people will normally choose among comparable properties when prices vary.³

The Principle of Substitution, in essence, states that nobody will pay more for something than they would pay for an equally desirable substitute. Logically, if two items are identical, except for the price, a willing buyer would always gravitate to the item with the lower price. This is also illustrated in the investment field. If two investments have equal risk, an investor will invest in the item that will provide the greatest return on investment.

Principle of Future Benefits. The Principle of Future Benefits is the third appraisal principle that is fundamental to the valuation process. This principle states that ...economic value reflects anticipated future benefits.⁴ This appraisal principle can best be illustrated by assuming that you want to buy a particular business. Would historic earnings be as important in determining value as prospective earnings? Probably not. You would not care what the business did for the prior owner as much as what it can do for you, the purchaser.

IV. Definitions of Value

A good place to start is to define what is meant by an appraisal. An appraisal is a supportable opinion about the worth of something. In this material, and in much of the

appraisal literature that you will read, the term "appraisal" is used synonymously with the term "valuation." Therefore, a business appraisal is the same as a business valuation.

It is not enough to state that the appraisal will determine the "value" of that which is being appraised. The term "value" has many different meanings in the valuation field. One of the first lessons to be learned relates to what are called "standards of value." These are also called "definitions of value." Before an assignment can be started, it is imperative that the standard of value that will be used in the assignment be clearly defined.

According to Webster's dictionary, the definition of "value" is *a fair return or equivalent in goods, services, or money for something exchanged*. In business valuation, the standards of value that are most frequently used are as follows:

Fair Market Value,
Fair Value,
Investment Value, and
Intrinsic Value.

Fair Market Value. Probably the most commonly used standard of value is fair market value. Revenue Ruling 59-60 defines fair market value as

...the amount at which the property would change hands between a willing buyer and a willing seller, when the former is not under any compulsion to buy, and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts.

This definition implies that the value is the most probable price in cash or cash equivalent that would be paid if the property was placed on the open market for a reasonable period and, in all likelihood, assumes the existence of a covenant not to compete. This definition assumes a hypothetical transaction between a willing buyer and a willing seller that are both willing and able to consummate a transaction.

Fair Value. The definition of fair value in a business valuation context varies from state to state. The definition has been developed from case law, primarily in dissenting or oppressed stockholder actions. This concept is also used in many of the corporate dissolution statutes but here also, the definition is not always clearly defined.

One of the most fundamental differences between fair value and fair market value is that in the former situation there is rarely a "willing" seller. Most courts are concerned with the concept of fairness, and as a result, the valuation is intended to be "equitable" for the disadvantaged party.

Some of the differences between fair value and fair market value are illustrated in the table below.

FAIR MARKET VALUE	FAIR VALUE
1. Willing buyer.	1. Not always a willing buyer.
2. Willing seller.	2. Not a willing seller.
3. Neither is under compulsion.	3. Buyer or seller may be compelled .
4. Assumes a typical hypothetical buyer and seller.	4. The impact of the proposed transaction is not considered, but the concept of fairness to the seller may be a consideration .
5. A price that is equitable to both .	5. A concept of "fairness" to the seller, considering the inability to keep the stock.
6. Assumes both buyer and seller have equal knowledge .	6. No such assumption .
7. Assumes reasonable knowledge of both parties .	7. No such assumption .
8. Applicable to controlling interests or minority blocks .	8. Applicable to minority blocks .
9. Applies to all Federal Tax valuations.	9. The most common value standard in state dissenting and oppressed shareholder statutes.

FAS 141 defines fair value as "the amount at which the asset (or liability) would be bought (or incurred) or sold (or settled) in a current transactions between willing parties, that is other than in a fixed or liquidation sale." It differs from fair market value in that it considers market participants and does not eliminate synergies. The Financial Accounting Standards Board is still issuing comments regarding this definition to clarify its meaning.

Investment Value. The investment value of a closely-held company is the value to a particular buyer as compared with the population of willing buyers, as is the case in fair market value. This value definition would be applicable where an investor may have a specific investment criteria that must be fulfilled in an acquisition. For example, a purchaser may decide that, as owner-manager, his or her compensation must be at least \$80,000 per year. In addition, the business must have the ability to pay any indebtedness resulting from the purchase from operating cash flow over a period of no longer than five years.

Frequently, an appraiser will use this standard of value when he or she represents a buyer who want to know how much is the business worth to me? The fact that the buyer is specific about the business value to him or her, changes the standard of value to investment value, as opposed to fair market value, which may be the value to everyone else.

Investment value is also being examined more closely by many of the family courts as the standard of value that is appropriate in divorce situations. In a divorce, the elements of fair market value are rarely present; the owner is not a willing seller, nor will there be a sale. We frequently hear the concept of the "value to the owner" used as an alternative to fair market value. Essentially, "value to the owner" is the investment value to that individual. At the time of this writing, the New Jersey courts continue to use fair market value.

Intrinsic Value. If you have ever heard the term "beauty is in the eyes of the beholder," you will understand the term "intrinsic value." This term, although not really a standard of value, is frequently used by a financial analyst. The intrinsic value of a stock is generally considered to be the value based on all of the facts and circumstances of the business or the investment. Financial analysts in a brokerage firm often ignore the fluctuations of the stock market in determining the intrinsic value of a specific stock.

V. Revenue Ruling 59-60

One of the most widely cited treatises in business valuation is Internal Revenue Ruling 59-60. This ruling was originally promulgated to provide guidance on the valuation of closely held businesses for estate and gift tax purposes. Over the years, it has been expanded by the Internal Revenue to include all tax-related valuations. Out of the tax arena, it has been cited over and over again as it provides good guidance for almost all types of appraisals of closely held businesses or interests in businesses.

According to Revenue Ruling 59-60, when determining the fair market value of a business or business interest, the appraiser should consider the following:

1. Nature of the business and history of the enterprise since 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 similar line of business having their stocks actively traded in a free and open market, either on an exchange or over-the-counter.

VI. Financial Statement Adjustments

As part of the financial analysis of the subject company, the appraiser may be required to make certain adjustments to the subject company's financial statements. Frequently called normalization adjustments, these items are intended to place the subject company's financial information on an economic basis. During this process, a cleansing of the

financial statements takes place. This cleansing is intended to remove those items that the willing buyer would not necessarily take into consideration in assessing the income or cash flow of the company. Another reason for these adjustments is to make the subject company's financial statements more comparable to either other companies that will be used in the analysis or the industry peer group.

The adjustments made to the financial statements will depend on the valuation approach and whether a controlling interest or a minority interest is being valued. Since a minority interest may not be able to effectuate a change in the company's financial position, it may be inappropriate to make such adjustments. For example, if the minority interest cannot set the compensation for the officers, an adjustment probably should not be made to the income stream.

The normalization process involves adjusting items in the financial statements that are not considered to be normal operating expenses for the subject business. The result should be economic financial statements rather than those that are GAAP or tax oriented. The normalization adjustments that are made, most often, are generally categorized as either:

GAAP adjustments,
Non-operating/non-recurring adjustments, and
Discretionary adjustments.

GAAP Adjustments. Certain types of adjustments are designed to make the subject company more comparable to the guideline companies or industry group being used as a means of comparison. For example, if the subject company uses LIFO inventory accounting, a switch to FIFO may allow the appraiser to more appropriately compare the balance sheet of the subject company to the guideline companies if they are using FIFO. Depreciation methods are another type of adjustment that falls into this category.

Non-Operating/Non-Recurring Adjustments. Another type of adjustment is intended to remove those items that appear in the subject company's income statement that are unrelated to the business operations or those that are not likely to recur in the future. An example of a non-operating income item would be rental income from a condo in Vail, Colorado owned by a company in New Jersey that manufactures chemicals. In this instance, the normalization adjustments would be to remove all income and expenses relating to this non-operating asset. A willing buyer of the chemical company would not be buying the condo. Therefore, these items are adjusted so that what is left would represent the operating income of the company.

Non-recurring items are also adjusted during the normalization process since the willing buyer would not expect these income or expense items to be pertinent to him or her in the future. An example of a non-recurring item would be a one-time \$1 million contract that resulted in a net profit of \$350,000. Since the willing buyer would not expect to realize the benefit of this contract, it should be adjusted.

Discretionary Adjustments. The last group of adjustments that will be discussed are the most common adjustments made for small and medium sized businesses. Although some of these adjustments may be applicable to larger companies, as well, they will frequently be applicable to the smaller ones. Discretionary adjustments are those items that relate to expenses that are solely at the discretion of management, generally the owners. Some of the more common items include:

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

There also may be other items to be included in this list, although you will probably find that these are the most common. Let's discuss each one so that you can gain a better understanding of why we make these adjustments.

Officer's Compensation. Smaller businesses frequently pay the officers an amount equal to what they need to live on, or what their accountant tells them to pay to reduce taxes. A common tax planning technique used among smaller businesses is to bonus out profit at the end of the year to eliminate taxable income. Sometimes, we see businesses that are doing so poorly that they cannot afford to pay their officers a reasonable wage.

The officer's compensation adjustment is intended to restate the economic income statement of the company to a basis that includes the amount of salary that would be necessary to attract officers that are qualified to perform the duties required by the company. You should put yourself in the position of an investor who will have to hire a replacement for the present management. How much will you have to pay to replace them going forward? Many factors should be considered in the determination of reasonable compensation. Among others, consider the type of duties, education, experience, hours worked and the geographical region of the country.

Owner's Perquisites. During the analysis of the company's financial statements, the appraiser should pay close attention to owner's perquisites. Many business owners will take as much income as they can out of their businesses, whether as salary or as fringe benefits (perks). These perks can range from retirement plans, life insurance, disability insurance, health club memberships to skyboxes at sporting arenas.

Part of the normalization process involves removing those items that are considered "discretionary" and would not necessarily have to be paid to someone else that would be hired to replace the owner. If the company has a retirement plan, health insurance plan, life and disability insurance plan or other fringe benefit plans that are offered to all other employees, these items may not be considered to be a normalization adjustment.

However, if the owner is getting a greater benefit than everyone else, a partial adjustment may be required. Whether or not the appraiser will add back these expenses may also depend on the salary survey that was used to determine reasonable compensation. Sometimes, surveys include, not only base salary information, but also total compensation, including perks.

Entertainment Expenses. Entertainment expenses are reasonable and necessary expenses for many businesses. However, we all know that many business owners deduct entertainment expenses that really do not have anything to do with the business. There may be times that the amount of entertainment expenses differs significantly from industry data. In this situation, the appraiser must investigate the reason for the differences. The appraiser will frequently ask himself or herself, would the willing buyer have to spend that much on entertainment? If you answer, no, he or she will probably need to consider an adjustment.

Automobile Expenses. Once again, the appraiser should be on the lookout for automobile expenses that are not business related. There are many businesses that require a vehicle for business use. However, the adjustments made during the normalization process are intended to remove the expenses related to nonbusiness vehicles.

Sometimes, the automobile will be a necessary business expense, but the type of vehicle may cause the expense to be excessively high. In this situation, the appraiser should try to estimate normal vehicle expenses for the business. Similar companies can be a good source for this data.

Compensation for Family Members. There is nothing wrong with family members working for the business as long as they really show up and their pay is reasonable for the services that they render. Frequently, the spouse is on the books so that a contribution can be made to an Individual Retirement Account, although no services are rendered for the compensation. In other situations, children are on the books as a means to get spending money and college expenses to them in a lower tax bracket than mom and dad. When family members work for the business, the appraiser should check to see if the amount of compensation would be paid to a non-family member as well.

Rent Expense. Frequently, closely-held businesses operate in a facility that is owned by the stockholders, or a related entity, and leased to the business establishment. This is not a problem if the lease is at market rates of rent. More often than not, the rent being charged is based on the mortgage payment that the owner is required to make. A market rental analysis should be obtained by the appraiser to support the fair rental value of the premises. This can be obtained from a real estate appraiser or a local Realtor that is familiar with the market rents in the area for that type of property.

Another factor to consider, although not necessarily a normalization adjustment, is when a business is operating without a lease. Rent may be paid to an unrelated landlord at

market rates, which would not require an adjustment to be made, but the risk associated with not having a lease should be built into market multiples, capitalization rates or discount rates. Also consider the difficulty in selling the business to a willing buyer, if a lease cannot be obtained. This could cause the business to be less marketable.

Interest Expense. An adjustment for interest expense may depend on whether the appraiser is valuing the equity of the company or the invested capital (equity plus long term debt) of the company. In an equity valuation, the interest expense adjustment may only relate to interest paid on non-operating liabilities. This could be interest on the mortgage of the condo in Vail. Since the asset was considered to be non-operating, all associated income and expenses, including interest, should be removed during the normalization process.

The appraiser should also pay attention to sizeable amounts of interest related to debt used to finance excessive compensation and perquisites. A company may be borrowing for working capital, and in turn, uses the proceeds of the debt to pay the owners. A willing buyer would not be expected to incur this debt, and therefore, it should be removed during the normalization process.

When the appraiser values the invested capital of the company, the valuation is said to be on a "debt-free" basis. Therefore, the interest is generally added back to determine the economic income of the company. This can be useful when valuing companies that have different capital structures than the publicly traded guideline companies (comparables).

VII. Business Valuation Approaches

Business valuation, to a large extent, resembles real estate appraisal. The three basic approaches to estimating the value of a business are somewhat similar to appraising a parcel of real property. In that regard, the three basic approaches are as follows:

Market Approach
Asset Based Approach
Income Approach

The Market Approach. The market approach is probably the most fundamental approach in a fair market value appraisal. Since fair market value is supposed to come from the "market" it only seems natural that this approach should be greatly emphasized. The application of this approach can be, at times, the most difficult approach to use in a business appraisal. In real estate appraisal, the appraiser looks for similar properties to the piece of real estate being appraised in order to estimate the similarities and dissimilarities between the properties. After the comparison is made, the real estate appraiser estimates the value of the appraisal subject using the sales price of the "comparable" properties as a starting point.

This concept can be illustrated using the following example. Property A sold for \$200,000. It is a single family house on a busy main road, one acre of land, three bedrooms, two baths and a newly renovated family room. Property B sold for \$175,000. It is also a single family residence in the same neighborhood, but up the street, off the main road, with one acre of land, two bedrooms, two baths and a well maintained inside. Property C sold for \$190,000 on the same block as Property B, also on one acre, with two bedrooms, two and one half baths and in relatively good shape on the inside. Assuming all else being about the same, an appraisal of Property D is requested. The comparative statistics about the properties is in the following table.

	Property A	Property B	Property C	Property D
Sales price	\$200,000	\$175,000	\$190,000	n/a
Acreage	1	1	1	1
Location	main road	quiet street	quiet street	quiet street
Bedrooms	3	2	2	3
Baths	2	2	2 ½	2 ½
Interior	new	good condition	good condition	good condition
All else	same	same	same	same

After comparing the features of Properties A, B, and C to Property D, it appears that Property D most closely resembles Property C. Therefore, the real estate appraiser concludes that the appraised value of Property D is \$190,000.

This is a very simplistic example and is not intended to make light of the role of the real estate appraiser. However, real estate sales are generally available in public records, and therefore, in that regard, the real estate appraiser has a definite advantage over the business appraiser. The point that is being made is that an estimate of fair market value is an interpretation of market data indicating what is the worth of a property. The role of the appraiser is that of an interpreter, and not a market maker. The business valuer's job is to use the information available in the market to estimate the value of the appraisal subject. Despite the similarities to real estate appraisal, business valuation methods are a bit different. The market approach as it relates to business valuation is discussed below.

The market approach emphasizes the principle of substitution. The principle of substitution states that "no one would pay more for something than they would for an equally desirable substitute." This means that given alternative investments, an individual would be expected

to gravitate toward the property with the lowest price if all other attributes are the same. Frequently, this attribute may include personal choices of the purchaser, but "risk" is a key ingredient in the selection process.

The market approach is the most direct approach for establishing the fair market value of a business. The methods that are used most often under this approach are:

Comparable sales method (also known as the transaction method),
Public comparables method (also known as the guideline company method),
and
Industry method (sometimes called "rule of thumb").

Regardless of the method used, the appraiser must consider the sources of market data. Whereas in real estate appraisal, the appraiser is able to obtain "good" information about the comparable properties, business valuers do not always have the same luxury. The data that is available is significantly different for different types and size companies. The data used will either come from the publicly traded companies or from those that are closely-held. Both of these sources can present real problems to the business appraiser. We need to understand the valuation process before we can determine whether or not we can use this approach in a business valuation.

Publicly traded companies are a widely used source of market data, particularly when valuing a larger company. The concept is to find publicly traded companies, whose financial statements are readily available, and use these companies as a basis for a comparison to the company that is being appraised. Since the price of the public company stocks change regularly, the appraiser can create relationships between the price at which the stock is trading and the financial data being analyzed. For example, a price to earnings multiple can be derived for the public company and then it can be applied to the appraisal subject.

Using stocks of public companies in this manner is suggested in Revenue Ruling 59-60 in the eight factors to consider (at a minimum). The revenue ruling tells us to consider

The market price of stocks of corporations engaged in the same or similar line of business having their stocks actively traded in a free and open market either on an exchange or over the counter.

Another manner in which the market approach is applied requires us to look at data about acquired or merged companies from the market. Various sources are used to find this data.

Many of the businesses that we appraise are too small for a meaningful comparison to be made from the public market, but not always. Data can be obtained for closely-held companies, as well, but not as easily as the public company information.

The theoretical application of the market approach is to allow the appraiser to use a group of surrogate companies to determine relationships that will then be applied to the appraisal subject. The surrogate companies can be either publicly-traded or privately owned. The appraiser looks for a group of similar companies in this analysis.

The similar companies will not be identical to the appraisal subject, but are intended to provide guidance to the appraiser during the appraisal process. The similar companies, formerly known as *comparative companies*, or *comparables*, are now known as *guideline companies*. This terminology was suggested to highlight the fact that no two companies are truly *comparable*, but rather that similar companies can provide guidance about other companies in the marketplace.

In business valuation, the requirements for "similarity" are considered from an investment point of view. Applying this criteria to the selection of guideline companies, various authors have determined what they consider in determining similarity. Some of the writings include:

Per Graham, Dodd & Cottle:⁵

- Past growth of sales & earnings
- Rate of return on invested capital
- Stability of past earnings
- Dividend rate and record
- Quality of management
- Nature and prospects of the industry
- Competitive position and individual prospects of the company of the activity

Per Stockdale:⁶

- Basic nature of goods or services produced
- Relative amounts of labor and capital employed
- Extent of materials conversion
- Amount of investment in plant and equipment
- Amount of investment in inventory
- Level of technology employed
- Level of skill required to perform the operation

Per Bolten, Brockardt and Mard:⁷

- Size
- Financial position
- Liquidity
- Years in business
- Financial market environment
- Quality of earnings
- Marketability of shares
- Growth
- Operating efficiency
- Geographical diversification

Various writings have created a substantial list of attributes to consider in determining whether the guideline companies are "comparable" enough to be used as good surrogates in an appraisal. Appraisal organizations teach that a guideline company must be "similar" and "relevant" to be used as a surrogate. Comparing the local hardware store to Home Depot may involve similar businesses, but let's face it, where's the relevance?

The application of the market approach frequently involves the use of multiples which vary depending upon the particular valuation. Some of the more commonly used multiples are:

- Price/Net Earnings
- Price/Pre-tax Earnings
- Price/Cash Flow
- Price/Sales
- Price/Operating Income
- Price/Book Value
- Price/Dividend Paying Capacity or Dividend Yield
- Price/Gross Profit
- Price/EBIT
- Price/EBITDA

The guideline company data is analyzed by the appraiser to determine whether any adjustments are necessary to bring the guideline company multiples more in line with the appraisal subject. The adjustments made to the multiples must be for qualitative differences between the companies. These qualitative differences will most likely relate to factors such as expected growth, and for different risks attributable to the appraisal subject as compared to the guideline companies. Different risk factors considered by the appraiser will generally include, but will not be limited to, the following:

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

There are many other risk factors to be considered as well, but these are some of the more important items that an appraiser must think about, not only in the application of the market approach, but as you will see in the income approach also. Most of the information about risk will be obtained from sources other than the financial statements.

Valuation Considerations. Since valuation is premised on investment theory, the appraiser must perform a comparative analysis of qualitative and quantitative similarities and differences between the guideline companies and the appraisal subject to assess the investment attributes of the guideline companies relative to the appraisal subject. Not all pricing multiples will be appropriate for each guideline company. Therefore, the appraiser should only use those multiples that are deemed to be appropriate based on the underlying financial data of each guideline company. Financial ratios for the guideline companies, as well as the comparative analysis of the qualitative and quantitative factors regarding the differences between the guideline companies and the appraisal subject should be used together to determine the appropriate valuation multiples for application to the appraisal subject.

Various valuation multiples may be selected for application to the appraisal subject resulting in several value estimates during the valuation process. The appraiser should consider the quality of the information that is available for the determination of each multiple in arriving at the valuation conclusion.

Another consideration is the time period to be covered in the application of pricing multiples. Some of the more common time periods that are used consist of the following:

- Pro forma period.
- Latest 12 months.
- Last fiscal year.
- Year ahead.
- Average (mean) over X years.
- Weighted average over X years.

Regardless of which time period an appraiser uses, Revenue Ruling 59-60 makes it clear that "valuation is a prophecy as to the future." Whether a three year average, five year

average or pro forma earnings are used in the application of these multiples, the ultimate decision as to which basis will be used is a subjective decision on the part of the appraiser. Which time period is most representative of what is expected to occur in the future?

The following exhibit contains an illustration of the application of the market approach using guideline company information. As you are reviewing this table, there are several points to keep in mind. First, the selection of the guideline companies came from a careful review of many of the items discussed previously that makes these companies similar to the appraisal subject. Another consideration is that the median multiple is calculated rather than the arithmetic average. This is because the median is frequently a better statistical measurement since it eliminates highs and lows that may skew the average.

GUIDELINE COMPANIES	DATE	PRICE/EARNING S RATIO	PERCENT OF SALES	MULTIPLE OF BOOK VALUE
Apple Company, Inc.	12/31/95	8.70	55.30%	2.85
Bananas R Us, Inc.	10/31/95	9.30	47.43%	4.65
Fruits, Inc.	12/31/95	8.50	35.25%	3.65
Cherry Corp.	12/31/95	6.60	54.80%	3.90
Grapes Corp.	11/30/95	7.80	48.20%	4.25
	Median Multiple	8.50	48.20%	3.90
	Selected Multiple	6.20	44.00%	2.50

The selected multiples are now applied against the figures of the appraisal subject.

	<u>Price/ Earnings</u>	<u>Price/ Sales</u>	<u>Price/ Book Value</u>
After-tax earnings	\$ 959,446		
Gross sales		\$13,983,541	
Book value (without non-operating items)			\$ 2,415,822
Multiple	<u>x 6.20</u>	<u>x 44.00%</u>	<u>x 2.50</u>
Operating Entity Value	\$ 5,948,565	\$ 6,152,758	\$ 6,039,555
Net Non-operating Assets	<u>+ 250,000</u>	<u>+ 250,000</u>	<u>+ 250,000</u>
Total Entity Value ^a	<u>\$ 6,198,565</u>	<u>\$ 6,402,758</u>	<u>\$ 6,289,555</u>
Rounded	<u>\$ 6,200,000</u>	<u>\$ 6,400,000</u>	<u>\$ 6,300,000</u>

The first question that you are probably asking yourself is how were the selected multiples chosen. This is accomplished by comparing the appraisal subject to the guideline companies. The price to earnings multiple reflects lower earnings for the appraisal subject, more volatility in the earnings, less depth in management and all of the other risk factors discussed previously. After the detailed comparison, the appraisal subject was found to be more closely related to Cherry Corp., but slightly more risky. Overall, the earnings stream appeared to be about 25 percent more risky than the group. Getting to a 6.2 multiple is then the subjective judgement of the appraiser.

Reviewing the sales multiple reflects a closer relationship to the guideline companies. The appraisal subject has relatively stable sales levels and was analyzed, in that regard, to be better than Fruits, Inc., but not as strong as Bananas R Us, Inc. The stability adds strength through reduced risk and therefore was considered a major factor in the selection of the multiple. Again, however, it is the appraiser's subjective judgement derived by the analysis performed.

The price to book multiple is analyzed and derived based on the companies' balance sheets. Financial ratios, including a return on equity is considered in deriving this multiple.

The results, as presented in the above exhibit represent the value of the company on a marketable, minority basis since the pricing multiples come from the public stock market. This also assumes that discretionary normalization adjustments were not made for the appraisal subject. The stock market activity consists primarily of minority shareholders that trade in the free and active market. This brings the value to a minority basis. The value indication stays on a minority basis if the appraiser does not make "control" normalization

adjustments. If adjustments are made, the result is a hybrid of minority and control, and a reasonable control premium (discussed later) may be added to derive a full control value.

Furthermore, these shareholders have the ability to call their stockbrokers to sell these shares, and they will generally have their money within three business days. This makes these shares marketable. If a controlling interest was being valued, you would add a control premium. If the shares being valued represented a minority interest, no such premium would be necessary. Regardless of which type of interest was being valued, control or minority, a discount for lack of marketability would probably be required since a closely-held stock is not as marketable as its publicly traded counterpart.

The multiples selected is a subjective process based on the analysis that the appraiser performs throughout the valuation assignment. This process considers the risk elements as well as the difference between the guideline companies and the appraisal subject with respect to growth expectations, size, financial performance and everything else that makes these companies different.

You will also notice that the multiplication of the base amount by the multiple results in the value of the operating entity. This amount includes all operating assets and liabilities of the company (assuming that the appraiser is valuing the equity). The non-operating assets and liabilities are added or subtracted from the value of the operating entity to reach the final entity value. Most appraisers round the conclusion since we know that the valuation process is not an exact science and precision is not possible.

The Market Approach for the Closely-Held World. Now that we have spent time discussing the market approach as it relates to publicly traded companies, let's concentrate on the closely-held world. Too often, appraisers state that since the appraisal subject is a small company, a market approach could not be used. More often than not, the appraiser did not even try to use this approach. No one can argue that it is considerably more difficult to obtain good market data for closely-held companies than it is for publicly traded companies. However, that is not an excuse to roll over and play dead.

The public market affords a vast amount of information to the appraiser. However, many of the businesses that we appraise truly have little, if any, correlation with the public world. This does not mean that a market approach is impossible. In fact, the market approach is available in more instances than you can imagine.

Part of the appraisal process requires the appraiser to use both his or her knowledge of appraisal theory as well as a good degree of subjective judgment. The novice appraiser will make many mistakes which include those that demonstrate a lack of understanding of the appraisal process. Clearly, it is not a perfect process, and many things can go wrong, but understanding the theory will allow the experienced appraiser to work around the problems.

The same theory that applies to large appraisal subjects should be applied to small appraisal subjects. Where we assimilate data from, as well as how much confidence we have in the data varies, but it nevertheless should be used since it is the best that we have. Let's not lose sight of the fact that fair market value comes from the market. The appraiser's job is to interpret the market and nothing more. For those of us who believe that the market is not always rational, our personal feelings really do not matter. To illustrate this point, consider how many small businesses sell based on some multiple of owner's discretionary cash flow. Many of these buyers are doing nothing more than buying jobs. From an economic standpoint, this makes no sense. If 20 buyers purchase a particular type of business for two times owner's discretionary cash flow, an appraisal subject with similar qualities would be worth the same multiple of its cash flow.

Once you learn to accept the fact that the market is not always rational, and not nearly as efficient as the finance textbooks of yesterday made us believe, an appraiser will realize that there is no substitute for applying common sense with a good sanity test at the end of the process. There is no substitute for using good judgement! Each step throughout the valuation process, the appraiser should be asking the question-- does this make sense? If the answer is no, stop and go back to the drawing board.

Small and medium-sized businesses can also have the market approach used as a fundamental valuation technique in most appraisals. As a matter of fact, it is probably the method of choice. Let's look at some of the ways in which the market approach can be applied to smaller businesses.

Public Company Data. Believe it or not, you can still use public company data when applying the market approach. In addition to the selection criteria used for the search for guideline companies, it is generally a good idea to place a size restriction of no more than 10 to 25 times the sales volume of the appraisal subject. Shannon Pratt had indicated in an earlier edition of *Valuing a Business*⁹ that a magnitude of 10 times is a good upper limit. Sometimes, going to a magnitude of 25 times the appraisal subject's sales volume works. There are many appraisers that believe that no size restriction should be placed on the guideline company search criteria. The size differential should be made up in the multiple due to the risk factors relative to the size differential. It is difficult to compare I.B.M. to the small local computer manufacturer. Here also, common sense must be applied. If the guideline companies are too big, they lose relevance to the appraisal subject.

Individuals who disagree with the use of public company data for small closely-held companies generally state that the size differential is so great that the result is meaningless. There are many public companies that are small. There are many companies traded over the counter with sales volume below \$10 million. In addition, when you look closely at these publicly traded companies, other than the financial ability to go public, they are not run much differently from many of our appraisal subjects; granted, a few less perquisites for the owners, and more reliable financial statements, but little management depth and not much more ability to raise additional capital.

Even when a public comparable method cannot be readily applied, due to lack of good guideline companies, an acquisition method might be applicable. One of the attributes taught by appraisal organizations is the requirement of the stock of the guideline companies to be actively traded. Active trading is essential if the market forces are to interact in the manner necessary to reach the equilibrium point in the market known as fair market value. Greater activity increases the possibility of fair market value being achieved by eliminating many of the personal motivations of particular buyers and sellers.

Many of the small public companies are relatively "thinly traded." Little activity makes it a bit more uncomfortable for the appraiser, but it does not mean that it cannot be used. After all, what is the alternative? Generally, thinly traded data can be used, albeit cautiously, if the appraiser can determine adequate information about the thin trading. Often, the thin trading takes place among insiders. This information can be used if it is determined that the logical market for the appraisal subject is insiders.

Let's talk about insiders for a moment. There are many times that an appraiser must struggle with the decision as to who are the logical players in the market. A fractional interest in a closely-held business may be worth more in the hands of an insider than an outside investor. As a matter of fact, there are many times that there may not be a market for a minority interest in a closely-held business other than for the other shareholders of the company. Swing votes and insider knowledge may create value for the insiders that an outsider would not be privy to. Remember, one of the components of fair market value is that the willing buyer and willing seller must have knowledge about the subject property.

Another useful application of public company data is the acquisition method. Multiples of entire company transactions will frequently be more beneficial for appraisers of small and medium-sized companies because the assignment is frequently to appraise 100 percent of the equity of these companies.

Closely-Held Company Data. Getting away from the public sector, moves our discussion to compilations of actual transactions in the closely-held world. There are private databases that can be somewhat useful in the quest for market data. Recognizing that each of the following sources of information also has certain deficiencies, the appraiser is once again faced with using common sense and sanity tests.

Rules of Thumb. Sometimes called the industry method, rules of thumb can prove to be a valuable tool, but should never be relied on by themselves for the valuation of an appraisal subject. Before we go too far, let's discuss rules of thumb.

Industry methods are an important part of the valuation process. If an industry uses a particular method to determine the value of a business, the appraiser should pay close attention to that method. If enough transactions take place using a particular method, the end result is that there is market data that will support the use of that method. However, if these formulas are the only methods used, an inappropriate valuation may result.

Sources of rules of thumb include published compilations, industry sources, trade associations and industry members. The advantage of industry methods (rules of thumb) is that they generally provide a sanity check on other valuation methods. The disadvantages of industry methods (rules of thumb) are as follows:

Different sources may provide different rules of thumb for the same industry.
Application of an uninformed rule of thumb may result in an incorrect estimate of value.
While simplistic in the application, rules of thumb may ignore the economic reality of the situation.

Rules of thumb are sometimes used in the application of the market approach, but care must be exercised by the appraiser. Rules of thumb should not be used alone as they frequently lack information required to adjust the rule of thumb to a particular situation such as:

Was it based on an asset or equity purchase?
Did the buyer pay cash, or were there terms that would affect the purchase price?
Was there a continuation of employment by the seller or a covenant not to compete?
Was the business profitable?

THE ASSET-BASED APPROACH. The asset-based approach is also commonly known as the *cost approach* or the *replacement cost approach*. In this approach, each component of the business is valued separately. This also includes liabilities. The asset values are totaled and the liabilities are subtracted to derive the total value of the enterprise.

The appraiser estimates value as the cost of replacing the individual assets and liabilities of the business. This approach frequently cannot be used alone because it cannot be easily applied to intangible assets. Generally, this approach is considered to be a "floor" value for an enterprise being valued as a going concern.

Most Common Applications of the Asset-Based Approach. The most common applications of the asset based approach is for the following types of business valuations:

Not-for-profit organizations.
Holding companies.
Manufacturing companies.
Asset intensive companies.
Controlling interests that have the ability to liquidate assets.

In all of these instances, the valuation subject will have most, if not all, of its value in its tangible assets or identifiable intangible assets, such as copyrights, patents or trademarks. Intangible assets, such as goodwill, will not play an important role in the value of the enterprise. If goodwill, or another type of intangible value exists, it will be added to the value derived under this approach.

This approach is generally not used for the following types of business valuation assignments:

- Service businesses.
- Asset light businesses.
- Operating companies with intangible value.
- Valuations of minority interests, which have no control over the sale of the assets.

Service businesses and asset light business generally get the bulk of their value from the intangible assets. Therefore, it seems logical that the asset based approach would not be an effective means to value these types of entities. Operating companies are generally valued based on the earnings and cash flow generation ability of the company, and therefore, rely on a market or income approach for determination of its value.

Minority interests will rarely be valued using an asset based approach since the minority shareholder does not have the ability to liquidate the assets. Here also, logic tells us that if the shareholder cannot get to the cash flow that will be generated by selling off the assets, then this approach will not get to the value of the cash flow to the minority shareholder. After all, value is based on the future benefits stream that will flow to the investor.

VALUATION METHODS. Included in the asset based approach are the following valuation methods:

1. Adjusted Book Value Method.
2. Liquidation Value Method.
3. Cost to Create Method.

Adjusted Book Value Method. The adjusted book value method finds its theoretical basis in the Principle of Substitution which states that *the economic value of a thing tends to be determined by the cost of acquiring an equally desirable substitute*. In the adjusted book value method, all of the assets and liabilities are adjusted to reflect their fair market value, including all intangible assets. The fair market value of the subject company's equity will be the fair market value of the assets less the fair market value of the liabilities.

The adjusted book value method is primarily used in the appraisal of asset-intensive businesses in a valuation of a controlling interest. The mechanics of the adjusted book value method is to convert the book value of the assets and liabilities shown or not shown on the appraisal subject's balance sheet to a market oriented basis. This will generally involve adjusting the appraisal subject's balance sheet to fair market value. Certain values will be easily ascertained by the business appraiser, but others will not. There will be times that the business appraiser will look to other appraisers, such as real estate or machinery and equipment appraisers, to provide values of certain assets.

Adjusting the Balance Sheet. The adjustments made to the balance sheet will depend on the purpose and function of the appraisal assignment. If the assignment is to value the equity of the company, every asset and liability should be reviewed for possible adjustment to fair market value. If specific assets and/or liabilities are the subject of the valuation, only those assets and/or liabilities should be valued.

Balance sheet adjustments should generally be made only if the interest being valued has the ability to liquidate the assets and liabilities of the company. If a minority interest does not have the ability to sell off the assets in order to realize the fair market value of these assets, it makes little sense to revalue them in a fair market value appraisal. However, if fair value is the definition of value being used, the minority shareholder is usually put in a position to receive the benefit of the appreciated net assets of the company.

In the U.S. News & World Report case,¹⁰ this point was a much disputed part of the litigation. Retiring employee-shareholders were being bought out based on an annual appraisal performed by one of the large appraisal firms. The stock was being valued on a minority, non-marketable basis. The company had amassed a large portfolio of highly appreciated real estate that was not valued at fair market value since the assignment called for a minority valuation. A short while after a buy out of some employee-shareholders, the company was sold for a considerable amount larger than the appraised value. Disgruntled former employees sued the appraisal firm and the company claiming that their shares had been undervalued at the time that they were bought out. The court found otherwise. In the opinion, Judge Barrington D. Parker stated

In a minority valuation ... assets may or may not play an important part in arriving at a per-share figure, because a minority shareholder cannot reach those assets... Generally speaking, if the valuation being undertaken is of a business, such as U.S. News, that produces goods or services, primary consideration will be given to the earnings of the company and the resultant return on a shareholder's investment.

When All Adjustments Have Been Made. After all of the adjustments have been made, the difference between the value of the adjusted assets and the value of the adjusted liabilities equals the value of the adjusted equity of the enterprise. The result may be considered to be the "floor" value in a valuation of a controlling interest (without any discounts at this point). This "floor" value will probably be greater than what the company would realize in liquidation.

The problem with this methodology for a going concern is that the result will not include unidentifiable intangible assets (e.g. goodwill), assuming that there are any. The value of these assets can be determined by some form of a market approach or an income approach, possibly even the excess earnings method if there is no better basis for determining the value of the intangibles.

Liquidation Value Method. Before we can discuss the liquidation value method, let's first define liquidation value. Liquidation value is the net amount expected to be left over after

assets are sold off and the proceeds are used to satisfy existing liabilities. Types of liquidation value generally include orderly liquidation and forced liquidation. Orderly liquidation is defined as the value given a reasonable amount of time is allowed to find a purchaser of the assets. The reasonable amount of time will differ based on the facts and circumstances at the time of the appraisal as well as the type of assets involved; generally, three to six months or longer. The values used in an orderly liquidation are based on the price that the market would pay for an asset in similar, depreciated condition.

In a forced liquidation, there is generally a lack of adequate time to find a purchaser for the assets. A fire sale value will generally apply. This is a case where the assets are disposed of as quickly as possible, generally in less than three months. A forced liquidation will generally take place when someone other than the owners of the business "force" the liquidation. Obviously, an owner will want to maximize the amount to be derived from a liquidation. Thus, a plan of liquidation combined with an adequate amount of time to get the best price in the market will accomplish this task. This does not happen in a forced liquidation.

When considering the liquidation value method, all costs of liquidation should be included. Some of the liquidation costs include commissions, administrative costs and losses which may continue during the period of liquidation, legal and accounting costs and taxes on the disposal of assets as a result of the liquidation. The present value of money should also be considered as it may take time to liquidate the company. It is rare that a business owner can liquidate the assets quickly. For example, if the company is no longer servicing its customers, it may take longer to collect the accounts receivable. Also, during the winding down stage of the business, the company may not be able to dispose of certain assets that may be required until the bitter end. Depending on the time frame involved, the appraiser may feel that a present value adjustment is in order.

When would you use the liquidation value method? The most obvious use of the liquidation method is when an actual liquidation of the business is contemplated. In this situation, the appraiser is aware that a liquidation will take place and will generally have the ability to discuss the plan of liquidation with the management of the company. This is the cleanest manner in which to deal with liquidation.

What do you do, however, if a liquidation is not actually planned? The liquidation methodology should also be considered when the highest and best use of the property is as if in liquidation, as opposed to as a going concern, IF the stockholder has the right to liquidate. Even though a business may not plan to liquidate, the appraiser may be required to value the company on a liquidation basis if the value estimate is higher than it would be as a going concern.

The exhibit on the next page highlights the adjusted book value method and is then followed by a liquidation analysis.

	<u>Book Value</u>	<u>Fair Market Value Adjustment</u>	<u>Adjusted Book Value</u>	<u>Liquida- tion Percent</u>	<u>Liquidation Value</u>
Current Assets					
Cash	\$ 88,563		\$ 88,563	100.00%	\$ 88,563
Accounts Receivable	201,407	(9,600) ¹	191,807	70.00%	134,265
Inventory	1,568,963	(47,500) ²	1,521,463	50.00%	760,732
Prepaid Expenses	64,589		64,589	50.00%	32,295
Current Assets	<u>\$ 1,923,522</u>		<u>\$ 1,866,422</u>		<u>\$ 1,015,854</u>
Fixed Assets:					
Fixed Assets	\$ 1,649,404	(1,125,689) ³	\$ 523,715	80.00%	\$ 418,972
(accum. depreciation)	<u>(920,894)</u>	920,894 ⁴	<u>0</u>		<u>0</u>
Net Fixed Assets	<u>\$ 728,510</u>		<u>\$ 523,715</u>		<u>\$ 418,972</u>
Other Assets					
Other Long Term Assets	\$ 15,488		\$ 15,488	0.00%	\$ 0
Intangibles	50,000	(50,000) ⁵	0		0
(accum. amortization)	<u>(40,000)</u>	40,000 ⁶	<u>0</u>		<u>0</u>
Nonoperating Assets	<u>175,804</u>	16,785 ⁷	<u>192,589</u>	95.00%	<u>182,960</u>
Other Assets	<u>\$ 201,292</u>		<u>\$ 208,077</u>		<u>\$ 182,960</u>
Total Assets	<u>\$ 2,853,324</u>		<u>\$ 2,598,214</u>		<u>\$ 1,617,785</u>
Current Liabilities					
Accounts Payable	\$ 398,524		\$ 398,524	100.00%	\$ 398,524
Accrued Expenses	145,666		145,666	100.00%	145,666
Notes Payable	125,000		125,000	100.00%	125,000
Long Term Debt (current)	120,000		120,000	100.00%	120,000
Other Liabilities	<u>63,588</u>		<u>63,588</u>	100.00%	<u>63,588</u>
Current Liabilities	<u>\$ 852,778</u>		<u>\$ 852,778</u>		<u>\$ 852,778</u>
Long Term Liabilities					
Bank Loan	568,789		568,789	100.00%	568,789
Nonoperating Liabilities	<u>10,000</u>		<u>10,000</u>	100.00%	<u>10,000</u>
Total Liabilities	<u>\$ 1,431,567</u>		<u>\$ 1,431,567</u>		<u>\$ 1,431,567</u>
Common Stock	10,000		10,000		10,000
Retained Earnings	<u>1,411,757</u>		<u>1,156,647</u>		<u>176,218</u>
Total Equity	<u>\$ 1,421,757</u>		<u>\$ 1,166,647</u>		<u>\$ 186,218</u>
Liabilities & Equity	<u>\$ 2,853,324</u>		<u>\$ 2,598,214</u>		<u>\$ 1,617,785</u>

EXPLANATION OF ADJUSTMENTS: 1 To adjust for uncollectible receivables. 2 To reflect obsolete inventory at scrap value. 3 To adjust fixed assets based on the machinery appraisal of Ace Appraisal Co. 4 To remove accumulated depreciation since the assets were adjusted to fair market value. 5 To reduce the intangible assets to \$0 as they will be revalued using an appropriate method if it is determined that value exists. 6 To remove the related amortization. 7 To write up the non-operating assets to fair market value.

Liquidation Analysis

Net Asset Value	\$ 186,218
Less: Commissions	(40,000)
Legal & Accounting	(10,000)
Winding down expenses	(20,000)
Capital Gains Taxes	<u>(15,000)</u>
Liquidation Value	<u>\$ 101,218</u>
Rounded	<u>\$ 101,000</u>

Cost to Create Method. The cost to create method is similar to the adjusted book value method. The main difference is that in addition to valuing the net tangible assets, intangible assets are valued under this method as well. This method requires the appraiser to estimate how much it would cost to recreate the enterprise being valued. This would also include trying to estimate the time, effort and monetary contribution necessary to recreate the intangible assets of the business.

The cost to create method will often result in a value estimate that is higher than the cost to reestablish a business enterprise. There is rarely a situation where the business would be rebuilt from scratch in the same fashion as it had been done previously. However, it can be useful for intangibles such as customer lists.

THE INCOME APPROACH. Revenue Ruling 59-60 suggests that an appraiser should consider the *earning capacity* of the business in the determination of value. *Earning capacity or income*, as applied in the methods about to be discussed, may be defined in a number of different ways. Some of the more common definitions include:

- Net income after tax.
- Net income before taxes (pre-tax income).
- Cash flow (gross or net).
- Debt free income.
- Debt free cash flow (gross or net).
- Earnings before interest and taxes (EBIT).
- Earnings before depreciation, interest and taxes (EBDIT).

These income streams, also known as *benefit streams*, are converted into estimates of value of the appraisal subject. The two processes that are used in the income approach are known as *capitalization* and *discounting*.

Capitalization. Capitalization is a single period valuation model that converts a benefits stream into value by dividing the benefits stream by a rate of return that is adjusted for growth. A common variation on this theme is the reciprocal of the market multiple, price/earnings which is earnings/price. An earnings/price ratio is also a capitalization rate.

Discounting. Discounting is a multiple period valuation model that converts a future series of benefit streams into value by bringing them to present value at a rate of return that reflects the risk inherent in the benefits stream.

The application of the income approach results in an estimate of the fair market value of the normalized net operating assets. In simple terms, the income stream that is capitalized or discounted, is produced by using the assets of the business. Therefore, the value that results from these assets is included in the income of the company as a going concern. The value of the assets, alone, only have value if they can be sold or exchanged. If the owner sells these assets, the business could no longer generate income, and therefore, the value would be sold with the assets.

After the value of the net operating assets is determined, the value of the net non-operating assets is then added to the result to obtain the value of the equity. In the "debt free" versions of the income approach, the estimate of value derived results in the value of the invested capital of the enterprise.

The benefit stream(s) to be used in the application of the income approach depends on many factors. Some of these factors include:

- The nature of the business, and its capital structure.
- The purpose and function of the appraisal.
- The particular subject of the valuation; whether the valuation involves a controlling interest or a minority interest.

The Nature of the Business and its Capital Structure. The benefits stream used by the appraiser will frequently depend on the nature of the business and its capital structure. For example, net income (after-tax) may be the appropriate income stream in certain valuation assignments involving larger companies. Net income may be used to achieve comparability with the guideline companies that report their earnings on an after tax basis. A pre-tax income stream may be warranted for smaller appraisal subjects that operate the business to minimize taxes. Chances are that the willing buyer will operate the business in a similar manner as the willing seller did.

The capital structure of the subject business will also be a factor in the determination of the benefit stream to be used by the appraiser. Companies that are heavily leveraged compared to guideline companies or industry composite figures may be more appropriately valued on a debt-free basis. Earnings before interest and taxes may prove to be a more meaningful comparison than net income.

The Purpose and Function of the Appraisal. The purpose and function of the appraisal assignment will also play a role in the benefit stream that the appraiser will select. As a refresher, the purpose and function of the appraisal relates to why is the appraiser doing the job, and what will it be used for. An appraisal assignment for a merger or acquisition will most likely have more of an emphasis on pro forma earnings than historic earnings.

If the appraiser is representing the buying, the investment value to that buyer may require certain adjustments to be made that would not normally happen in a fair market value appraisal (for example, removal of certain expenses that will go away because of the synergies between the companies).

In certain jurisdictions, future earnings are considered to be too speculative, and as such, they cannot be used in valuations submitted to the courts. In these jurisdictions, primary emphasis becomes the historic figures. However, more jurisdictions are accepting financial forecasts as part of a business valuation if the forecast is well documented and explained. The courts have now accepted these methodologies since the financial community looks to the future rather than the past.

The Particular Subject of the Valuation. The particular subject of the valuation makes a big difference in the benefit stream that can be used in an appraisal. When an appraiser values a controlling interest, adjustments are commonly made, as discussed previously. For minority appraisals, however, many of the adjustments that would have been made for control, are not made. The appraiser will use a normalized benefit stream for both valuations, but the minority valuation will most likely not contain the adjustments relative to discretionary items.

Another consideration in this process is the fact that the minority shareholder cannot control the balance sheet of the company. Therefore, valuing the minority shareholder assuming a normalized debt to equity relationship would not make sense. A small closely-held company with a considerable amount of debt on the balance sheet is going to be paying a lot of interest expense. Valuing this company for the minority shareholder on a debt free basis would result in an overvaluation of the company's true worth to that individual. The fact that the controlling shareholder has elected to put the company in debt reduces the value of the company.

Value is From an Investor's Viewpoint. The income approach is generally used in determining the value of the appraisal subject from the viewpoint of an investor. This is why the income approach is often referred to as the *investment value* approach. The income approach is based on the assumption that an investor would invest in a property with similar investment characteristics, but not necessarily the same business. This looks to the earnings power, or cash generation capabilities, of the enterprise being appraised.

Very often, closely-held businesses are so unique that the appraiser cannot find good information about market multiples or capitalization rates to apply to the company's benefit stream. Instead, the appraiser tries to compare the risk associated with the benefit stream to alternative types of investments in the market place. This becomes another form of the principle of substitution at work. The appraiser will go a long way by having knowledge about rates of return available in the marketplace.

Income Approach Methods. The value derived under the income approach, is the value of the operating assets and liabilities of the enterprise. The value of the nonoperating

assets and liabilities is then added to the value of the operating entity to obtain the value of the total enterprise. Some of the valuation methods included in the income approach are:

Capitalization of benefits method
Discounted future benefits method
Excess earnings method (some consider this an asset based method)

Capitalization of Benefits Method. The theoretical value of a business is the present value of all of the benefits that can reasonably be expected to be generated in the future to the owners. The mathematical model to express this concept in its simplest form is as follows:

$$V = \frac{E}{k - g}$$

Where

E = The benefit stream expected in the next period
k = Discount rate
g = Long term sustainable growth

Let's restate what we just did in English. The equation for the single period benefit stream capitalization method is:

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

In order to correctly apply this methodology, the benefit stream to be capitalized must be from stabilized operating conditions. Combining this with anticipated growth, the stabilized benefit stream should reflect the future expectations of the business, or investor. Each benefit stream calls for a different capitalization rate. The risk associated with a particular benefit stream will cause the difference in the rates.

The objective in a single period capitalization method is to determine through analysis, and, if necessary, adjustments, levels of benefit streams that are reflective of a sustainable level for the appraisal subject. As discussed previously, the purpose and function of the appraisal influences the nature of the benefit stream to be capitalized.

In valuing a minority interest in a closely-held business, discretionary adjustments to the benefits stream are generally not made. Non-recurring items and GAAP adjustments will probably be made when these items are considered to affect the benefit stream available to the minority interest in the future. Since the minority interest does not have the ability to effectuate change in the discretionary items, it is generally considered to be inappropriate to modify the benefit stream for items that cannot be changed by the minority.

In certain instances, adjustments to the benefits stream may be required, even in a minority situation. Some of the instances where adjustments are appropriate may include situations

where there are nonrecurring items or where the controlling party may be abusing control to the detriment of the minority owner (in this instance an oppressed shareholder action may be waiting in the wings). If the business is expected to be sold, "pro forma" earnings or cash flow will be more important to the willing buyer. Appropriate adjustments should be made to accommodate this situation. If the appraisal is performed for federal estate tax purposes, historical earnings would more likely be stressed, although the revenue rulings indicate that past earnings should be used to reflect probable future earnings. The courts are beginning to recognize the importance of future earnings, and as such, they are allowing appraisers to use forecasts and projections if they are properly supported.

One of the most fundamental concepts to consider when doing a business appraisal, is that there must be a consistent matching of the capitalization rate with the benefits stream being capitalized. Even if the capitalization rate is developed from information from the public stock market, which primarily relates to minority shares, adjustments may be made to the benefits stream being capitalized. The benefit stream will determine whether the valuation result is control or minority (not the capitalization rate!).

The benefits stream being capitalized will depend on the type of business being appraised. Cash flow should be used as the benefit stream to be capitalized for businesses that are capital intensive and which have heavy depreciation and amortization, as compared to the net income. This is a similar concept to selecting the pricing multiples that was discussed in the market approach.

Revenue Ruling 59-60 states that ". . . . determination of the proper capitalization rate presents one of the most difficult problems in valuation." Capitalization of the total benefit stream results in an indication of value for the entire operating enterprise (shareholder's equity or invested capital); partial benefit streams can also be capitalized in order to estimate the value of portions of the enterprise (e.g. excess earnings can be used to estimate the value of the intangibles).

The following exhibit illustrates the mechanics of the capitalization of benefits method without valuation discounts or premiums.

Adjusted Net Income	\$ 1,000,000
Forecasted Growth	<u>x 1.05</u>
Estimated Future Income	\$ 1,050,000
Capitalization Rate	<u>÷ 25.0%</u>
 Indicated Value from Operations	 \$ 4,200,000
 Add: Net Nonoperating Assets	 <u>357,350</u>
Total Enterprise Value	<u>\$ 4,557,350</u>
Rounded	<u>\$ 4,600,000</u>

Discounted Future Benefits Method. Founded on the Principle of Future Benefits, the value of a business is the present value of all of the "benefits" it can reasonably be expected to generate in the future. These "benefits" are generally considered to be the future cash flows available to the owners from the business or investment (dividends and ultimate sale). In theory, if the holding period is expected to go into perpetuity, then the future dividend stream discounted to the appraisal date, at an appropriate discount rate, should represent the value of the investment. Since investments rarely go to perpetuity, a long time horizon is generally substituted as the holding period for most investments in closely-held businesses.

Although distributions to the owners are the main consideration, the application of this method can also be applied to earnings, cash flow (gross or net) and other benefit streams. Regardless of the benefit stream being discounted, the basic concept is the same. This methodology generally involves two steps. First, calculate the sum of the present values of the benefit stream for each of a number of periods (normally years) in the future, and then, add to that amount the present value of a "terminal" value.

The terminal value is generally calculated under a benefit stream residual method or an asset residual method. The benefit stream residual method assumes that the benefit stream being discounted will eventually stabilize, and as such, the stabilized benefit stream can then be capitalized into perpetuity and then discounted back to the valuation date. The asset residual method assumes that the benefit stream being discounted will stop at some point in the future as a result of the business coming to an end and the business being disposed of either through a sale or a liquidation. This method tends to be popular if the business is expected to have a limited life.

The terminal value assumes that the benefit stream of the business will eventually stabilize. This is similar to the discussion about single period capitalization models.

In simple language, value is estimated as the sum of the present values of the benefit stream, for the projection period, plus the present value of the terminal value. The terminal value will be the present value of the stabilized benefit stream capitalized into the future. The terminal value may also be the present value of the sale or liquidation of the company.

The next exhibit illustrates the mechanics of the discounted future benefits method. The example in the exhibit assumes that the first five years of the projection are "unstable" with stability taking place at the end of year 5. Two calculations require an explanation. The first, is the calculation of the terminal value of \$350,000. This is calculated by starting with the year five forecasted net income of \$70,000 and growing it by the next year's rate of growth that will result in the stable income stream of the company into the future

The next step is to capitalize the stable benefits stream using a capitalization rate equal to the discount rate used in the present value computations above, and subtracting the assumed long term growth rate (in this case 5%). Therefore, the capitalization rate in this example would be 21 percent (.26 - .05).

NOTE: Don't worry about where these rates come from yet because we will spend more time on this subject later in the materials.

	Forecasted	x	26% Present	=	Present Value
Year	Cash Flow		Value Factors		Future Cash
					Flow
1994	\$ 674,384	x	.79365	=	\$ 535,225
1995	826,118	x	.62988	=	520,355
1996	969,435	x	.49991	=	484,630
1997	1,084,073	x	.39675	=	430,106
1998	1,180,196	x	.31488	=	371,620
TV	5,900,981 ^a	x	.31488 ^b	=	<u>1,858,101</u>
Total					\$4,200,037
Add: Net Nonoperating Assets					<u>357,350</u>
Value of Enterprise					<u>\$4,557,387</u>
Rounded					<u>\$4,600,000</u>

^a TV calculated as follows: $\$1,180,196 \times 1.05$ (assumed growth) = \$1,239,206
Discount rate - growth (.26 - .05) = .21

Capitalizing \$1,239,206 @ 21% = \$5,900,981

^b The terminal value is usually discounted at the same rate as the final year of the projection if an end-of-year discounting convention is used.

The second item needing an explanation is the fact that the discount factor used to present value the terminal value is the same factor as was applied to the year five forecasted net income. Since stability is reached at the end of year five, we are capitalizing the future income (year 5 plus growth), but it is being done at the end of year 5. Since year 5 is used for both the forecasted net income for that year and the terminal value, both years should have the same present value factor used.

The Acceptance of Forecasts and Projections. In tax related appraisals, Revenue Ruling 59-60 discusses the fact that "valuation is a prophecy of the future." This is an indication that the future is an important component of the valuation process. In Central Trust v. The United States¹¹, the court's findings included that past earnings are important only insofar as they reasonably forecast the future earnings. In the Estate of Kirkpatrick¹², the court emphasized the fact that a potential investor would analyze the business enterprise from the viewpoint of its prospects as a money making enterprise. In non-tax

related appraisals, the courts are still uncertain about using forecasts. However, more and more courts are beginning to accept this methodology, if a well thought out and presented forecast is used in an appraisal.

What if the Forecast is Incorrect? You can be absolutely certain that the forecast will be wrong! But don't worry, potential investors are frequently wrong also. If we were right every time that we made an investment, there would never be such a thing as a bad investment! The concept of fair market value requires the appraiser to put him or herself in the position of the willing buyer on the valuation date and make an informed judgement, based on all information known at that time, as to what the future will be like. That is what is really being purchased. But don't forget about the willing seller also. Any knowledge that the willing seller has would also be known and factored into the selling price.

One of the real world difficulties that appraisers run into regarding their projections, especially if the appraiser is testifying in a court proceeding, is when the opposing attorney gives the appraiser subsequent financial data, beyond the valuation date, to prove that the forecast was wrong. This is where the cross examining attorney tries to be a hero and says "gotcha." A good appraiser will emphasize that the concept of fair market value would be violated if subsequent information was used. A willing buyer cannot know what is in store for the future other than performing the same level of due diligence that the appraiser attempts to perform. The analysis of the company's historical results, economic and industry forecasts, and other similar information should be used to project the future results for the appraisal subject. All of the information gathered during this analysis will assist the appraiser in making reasonable forecasts. Working with management to get the forecast to a reasonable level can also be done by the appraiser. However, an appraiser must be careful not to automatically accept management's forecast.

Calculating the Terminal Value. In the discounted future benefits method, the terminal value can represent a significant portion of the overall value of the business, and as such, care must be exercised in its derivation. The terminal value should represent the fair market value at the point in time that the business is in a stabilized and sustainable condition. It is frequently calculated using a single period capitalization methodology. The benefit stream capitalized is the projected stream for the year after stabilization (time period $t + 1$). The capitalization rate used to convert the benefit stream into an indication of the fair market value of the business at that point, is calculated by subtracting the long term sustainable growth rate from the discount rate used to present value the annual projections.

The Excess Earnings ("Formula") Method. An argument can probably be made that the Excess Earnings Method is more of an asset based approach than it is an income approach. Actually, it is a hybrid of both approaches. The excess earnings method, which is also known as the formula approach, is probably the most widely used method of appraisal, particularly for small businesses and professional practices. This hybrid of the asset based approach and the income approach is based on Revenue Ruling 68-609, which provides a method for valuing intangible assets.

The excess earnings method involves valuing the subject company's tangible assets and liabilities at fair market value and adding to that an amount that represents the company's intangible value. The net tangible assets are valued using the adjusted book value method. The capitalization of excess earnings is used to value the intangibles. This is a single period capitalization model that is similar to the discussion at the beginning of this section.

Excess earnings, rather than net income, cash flow, EBIT, EBDIT, etc., becomes the numerator in the capitalization model. These excess earnings are derived by forecasting normalized annual net income (after-tax or pre-tax) for the entity, in the same manner that is done in the other income approach methods. Then, a reasonable return on the net tangible assets is subtracted from the normalized net income to determine the excess earnings. These excess earnings are then capitalized to arrive at the intangible value of the enterprise.

The underlying theory behind this method is logical, but often misapplied. The theory is that a company's earnings stream results from the company's investment in both, tangible and intangible assets. All of those machines that make widgets allow the company to have products to sell. Combined with the other operating assets and liabilities, a return on investment is produced attributable to those net assets. If you subtract this return on the net assets from the total earnings stream produced by the company, the balance would be attributable to the intangible assets of the company.

The following exhibit illustrates the basic calculations of the excess earnings method. The mechanics are simple. Unfortunately, this method is frequently incorrectly applied, and the result is a poor valuation.

Estimated Future Income (normalized)	\$ 1,000,000
Less: Return on Net Tangible Assets (\$800,000 x 15%)	<u>120,000</u>
Excess Earnings	\$ 880,000
Capitalization Rate	<u>÷ 40%</u>
Intangible Value	\$ 2,200,000
Plus: Adjusted Book Value	<u>800,000</u>
Total Entity Value	<u><u>\$ 3,000,000</u></u>

Similar rules apply in using the excess earnings method as were discussed in the single period capitalization model. Since a single income stream is being used, that income stream should reflect "stability." If the forecasted earnings are not expected to be relatively stable, a different method should be used. Also, since the assets and liabilities are adjusted to their fair market values, this method implies a control valuation. This method will not be appropriate for minority interests since they cannot liquidate the assets.

There are frequently better methods to use in valuing businesses and therefore, the excess earnings method is not always appropriate. Still, it continues to be used by many appraisers. The more common application of the excess earnings method is seen in the valuation of professional practices and very small owner-operated businesses. In essence, the valuation of these entities takes on an asset based approach, with the goodwill (unidentifiable intangibles) being valued this way.

In order to use the excess earnings method for intangibles, all of the operating assets and liabilities of the business must first be appraised. Frequently, this is accomplished using the adjusted book value method.

Required Rate of Return on Net Tangible Assets. There are several ways to determine the required rate of return on the net tangible assets of the business. There are no hard and fast rules but there is no substitute for common sense in choosing appropriate rates. One method of determining the rate of return on the net tangible assets is to review the assets and liabilities that make up the balance sheet to assess the amount of risk attributable to these assets. Obviously, a balance sheet with all cash would be considerably less risky than a balance sheet that is heavy in special technology equipment. The difference in the rates in this instance would be the difference between what a certificate of deposit pays as opposed to the cost of leasing the equipment. The Principle of Substitution should be considered in weighing alternative returns.

The return on the net assets is then subtracted from the normalized earnings resulting in "excess earnings" subject to capitalization. The capitalization rate applied to the excess earnings must be sufficiently high, since the excess earnings represent the return from intangibles, which are considered to be risky. Logically, if the rate of return on tangible assets is 8 percent, and the required rate of return on the company's earnings (which includes a return on the net tangible and intangible assets) was determined to be 25 percent, then the rate of return for only the intangibles has to be higher than 25 percent, so that on a weighted basis the 8 percent and the intangibles return equals 25 percent.

VIII. Discount Rates and Capitalization Rates

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

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

value factors, which are used to discount a stream of future benefits to their present value.

Using Pre-Tax or After-Tax Rates. One of the points that creates more confusion among non-business valuation professionals is the issue of using pre-tax or after tax income streams and capitalization rates. Let's address this immediately so that you will not be confused as we proceed into this section. The resulting value for the appraisal subject should be the same regardless of whether pre-tax or after-tax income is used in the valuation. The capitalization rate will be adjusted depending on which income stream is used. The following exhibit contains an example that should help illustrate this point.

Assume that the value of XYZ, Inc. is being determined using a capitalization of income method. XYZ, Inc. has a forecasted pre-tax income of \$100,000 and an after-tax income of \$65,000 (assumes a 35% tax rate). If the appraiser has determined that the appropriate capitalization rate based on pre-tax information in the market was 20 percent, the valuation calculation would be as follows:

	<u>Pre-Tax</u>	<u>After-Tax</u>
<i>Forecasted Income</i>	\$100,000	\$ 65,000
<i>Capitalization Rate</i>	÷ <u>.20</u>	÷ <u>.13</u>
<i>Estimated Value</i>	<u>\$500,000</u>	<u>\$500,000</u>

If the value of the business was estimated to be \$500,000 using a 20 percent capitalization rate derived from the market, on a pre-tax basis, then the value on an after-tax basis should be the same. If the numerator is changed from \$100,000 (pre-tax) to \$65,000 (after-tax), the denominator (capitalization rate) must be changed by the same methodology. This example should help you to begin understanding the fact that it does not matter if pre-tax or after-tax income is used as long as the capitalization rates used correlate to the type of income being capitalized. This same premise holds true for cash flow, EBIT, EBDIT, or any other stream being capitalized or discounted. The capitalization rate or discount rate must correlate to the stream of income that is being capitalized or discounted.

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

$$\text{Discount Rate} - \text{Growth Rate} = \text{Capitalization Rate}$$

Capitalization rates can also be directly derived from the market without calculating a discount rate. Methods of calculating this rate will be discussed later in this section. For the time being, let's concentrate on the basic formula. The appraiser must use informed

judgement in selecting the appropriate growth rate. The company's historical growth, the projected growth of the industry, and many other factors (including but not limited to management goals, ability to achieve desired growth, borrowing power) should be considered in the determination of the growth rate. The rate should reflect long term, sustainable growth, rather than what is projected for the short term. The appraiser needs to apply good judgement in selecting a growth rate for the company. An exceptionally high growth rate may not be achievable over the long run. Experts in finance generally expect the long term growth of a company to average from three to five percent, generally not much more than the rate of inflation, plus population growth.

The determination of which benefit stream will be discounted or capitalized will depend on various factors, including availability and reliability of data. This data can either relate to market information about discount rates or capitalization rates or the subject company's information. The appraiser may have better information to work with in certain assignments, while being unable to feel comfortable with financial information in others (cash businesses). The amount of risk associated with the valuation subject should be a major consideration in determining an appropriate rate. The appraiser also considers the alternative rates of return on comparable investments available to the "willing buyer." This is the principle of substitution at work.

Discount Rates. In simple terms, a discount rate is the required rate of return that an investor would demand, based on the risks associated with the benefit stream under consideration, to induce him or her to make the investment. The benefit stream will generally be considered over some predictable time period in the future. Stated differently, a discount rate represents a required rate of return, which is a risk element plus a premium, in consideration of the benefit stream being discounted.

On occasion, appraisers use other terms of art instead of the term discount rate. Some of these include terms such as *opportunity cost of capital*, *alternative cost of capital* or *weighted average cost of capital*. Regardless of what they are called, discount rates are supposed to reflect the required rate of return on the benefit stream being discounted given the risks associated with the benefit stream. One such risk element is the ability of the investor to receive the benefit stream that is being forecasted as part of the valuation. A company with a steady track record of distributions will generally be considered less risky than a company that has a volatile past record.

Discount rates are determined by the market. They will vary with time, even for the same investment. This is easily illustrated through an explanation of why the interest rates paid on 30 year treasury bonds vary. Discount rates take into consideration inflationary expectations of the future benefit stream being used.

Discount rates take into consideration the risks in the marketplace, and must also include an element that is specific to the appraisal subject. These rates are based on the yields available for alternative investments. If an investor can get a 16 percent rate of return on a type of investment that is less risky than the appraisal subject, why would he or she

accept less than 16 percent? Logically, the investor would not. The discount rate will also depend on the nature of the future benefit stream being reduced to present value.

Factors That Affect the Selection of a Discount Rate. Factors that affect the selection of a discount rate are considered to be external (non-controllable) and internal (controllable) to the appraisal subject. The external factors are those over which the owners of the business have no control. For example, general economic conditions and the economic outlook at the valuation date are to be considered as factors that affect the selection of the appropriate rate. Also, the nature and economic condition of the industry within which the business operates, as well as the market served by the enterprise.

Market perceptions regarding similar investment opportunities is another example of an external factor that is beyond the control of the owners. Sources and availability of capital to finance operations are other examples. These items are important to the willing buyer and therefore, should be considered by the appraiser.

Internal factors are those that the owner or owners of the business have control over. The financial condition of the appraisal subject is one such example. The earning capacity of the company is another. This includes the level and quality of the earnings or cash flow for the company. The ability of the company to obtain the goods and services it needs to produce its products is also considered to be an internal factor. This is clearly in the control of management. Also, the ability to bring these products to an available market is a burden that rests with management. The quality of the management team running the company is another factor that should be considered by the appraiser.

Another internal factor includes the quality of the data available. This usually is a result of a good accounting system with proper controls. The ability of management to meet its budgets, forecasts and projections goes to the quality of management.

Components of a Discount Rate. There are many different ways to derive a discount rate. This outline will attempt to address several of them, but it must be recognized that these are not all inclusive. In some instances, the discount rate can be derived from a capitalization rate. This would be the case where the long term growth rate is known.

The formula most often seen in the literature for the derivation of a capitalization rate is:

$$C = D - g$$

Where

- C = capitalization rate,
- D = discount rate, and
- g = long term sustainable growth.

Moving around the formula allows the appraiser to determine a discount rate as follows:

$$D = C + g$$

Every discount rate, regardless of how it is derived, includes the following basic components:

- Risk free rate of return.
- General risk premium (also known as the "equity risk premium")
- Specific company risk premium

Risk Free Rate of Return. The risk free rate of return is sometimes known as the "safe rate" or the "cost of money." In theory, this is the minimum return that an investor would accept for an investment which is virtually risk free. It is the pure cost of money plus the rate of inflation anticipated by those who deal in these types of transactions.

Sources of risk free rates of return most commonly include U. S. Treasury bonds. More often than not, long term rates are used to simulate the long term holding period of a closely-held business. The 20 year bond is frequently used, although the 30 year bond has been used as well. The 20 year bond has become popular among appraisers due to the fact that many appraisers use the equity risk premium data provided by Ibbotson Associates, a publisher of this data in a summarized fashion, which is based on 20 year bonds.

Intermediate term rates are sometimes used when the expected holding period of the investment is of a shorter nature. Treasury notes can be used in this instance. Others prefer short term rates such as U.S. Treasury Bills. These are considered to be the safest of the investments since the nature of a short term vehicle does not include inflationary expectations and risk associated with the investment. However, short term rates tend to have a greater degree of volatility than the longer term investments.

The selection of a long term, intermediate or short term rate will depend on the investment horizon implicit in the asset being appraised. Closely-held businesses are generally purchased with the intent of a longer holding period, and therefore, should have longer term rates used in deriving the discount rate. On the other hand, a contract right, with a life of three years must be properly matched with the proper risk free rate.

General Risk Premium. The *general risk premium* is sometimes called the *equity risk premium*. This component of the discount rate takes into consideration market perceptions and expectations of a broad measure of the market. For example, if the appraisal subject's industry is returning 17 percent on equity, an investor in that company would expect to receive the same 17 percent, with all other factors being equal. After all, why would someone be willing to accept less than they could get from an equally desirable substitute?

Appraisers have been attempting to develop alternative ways to determine the "general risk premium." Some methods look at the entire market, while others look only at segments of the market. Standard & Poor's industry studies include indices that show how different

industries have performed. These, and other studies, are being used to differentiate between returns on equity and hypothetical returns, as if the intangible value of the companies were included in the calculation. Direct market comparison methods are used to suggest that other investments in the marketplace may provide an indication of the risk associated with a closely-held business. Some appraisers believe that comparing low quality bonds to stocks may better equate the risk of a closely-held stock.

The equity risk premium for corporate equity securities can be obtained from various sources. By far, the most commonly used source is the Stocks, Bonds, Bills and Inflation, published by Ibbotson Associates, Chicago, Illinois. Ibbotson data is a compilation of investment returns for several types of financial assets since 1926.

Although Ibbotson data is the most widely used source for the equity risk premium, it may not be as applicable for small closely-held companies. Since the Ibbotson data comes from the public marketplace, the companies included are significantly larger than most of the businesses that will be appraised by most of us.

Specific Risk Premium. This component of the discount rate allows for the specific risk characteristics of the appraisal subject. These risk elements are not covered by the general risk premium. The specific risk premium can increase considerably depending on the risk associated with the appraisal subject. The specific risk premium can also be negative. This would occur in a situation where the appraisal subject is considered to be less risky than its peer group.

There is no objective source of data to properly reflect or to quantify the specific risk premium. It is a matter of judgement and experience. There are no mystical tables that an appraiser can turn to, nor can the appraiser be comfortable with this portion of the assignment.

The Capital Asset Pricing Model. The Capital Asset Pricing Model ("CAPM") is a method of determining a discount rate, commonly used in the appraisal of larger companies. It has little, if any, applicability to small and medium sized businesses but no discussion about discount rates would be complete without mentioning its existence.

The theory behind the CAPM is that we assume that in the marketplace there are a fixed number of securities in which we can invest. Each of the securities has its own expected return, based on its level of risk, and standard deviation. Many securities with the same expected return have different standard deviations, but vary in expected return. The investor will select the security that offers the highest return and the lowest standard deviation. What does this mean? Investors don't like to take chances if they can avoid them! They look to minimize their risk, and at the same time, maximize the return available to them.

The mathematical equation for the CAPM includes the same components as found in a discount rate with the exception that a *beta* is included in the model. This beta is a

statistically determined factor that is supposed to represent the volatility of a company's stock based on similar companies. Rather than allow this course material to become a statistical treatise, we will discuss other methods that have similar characteristics but are conceptually easier to use.

Alternatives to the Capital Asset Pricing Model. There are many alternatives to the capital asset pricing model. More often than not, the same methods are used to develop capitalization rates. Remember that the difference between discount rates and capitalization rates is the long term sustainable growth factor.

Some of the alternatives include the following:

- Price/Earnings reciprocal plus growth
- The Build Up method
- Factor Rating method
- Weighted Average Cost of Capital

Price/Earnings Reciprocal Plus Growth. One of the methods used to calculate a discount rate is to take the reciprocal of an industry specific price/earnings ratio from the market (this provides a capitalization rate) and add the expected growth rate of the returns attributable to the guideline companies. This is said to be a market derived rate since the price/earning ratios will be determined from guideline companies. Since an earnings/price ratio is the same as a capitalization rate, the long term sustainable growth must be added to the result to move from a capitalization rate to a discount rate (remember, $D - g = C$, therefore $C + g = D$). The difficulty is figuring out what the market's expectations were for long term sustainable growth in the market price of the stocks. This information is not published anywhere. Some appraisers will turn to the industry data to come up with this expected growth rate. In practice, the rates published for the industry are short term (maybe a few years) and not long term.

The Build-Up Method. Many appraisers, especially those who work with smaller privately held companies, use a "build-up" method of developing a discount rate. The build up method embodies all of the elements of the Capital Asset Pricing Model, including a:

- risk free rate
- equity risk premium
- specific risk premium

These are the same components from the CAPM. The general risk premium will normally be developed from industry specific data instead of using a beta to reflect volatility in the overall market. Ideally, the risk free rate plus the general risk premium should result in the same discount rate as the CAPM. The specific risk premium should make up the difference that is specifically attributable to the appraisal subject.

Frequently, the appraiser cannot get industry specific data to use in the development of the equity risk premium. Instead, the equity risk premium will be developed from the Ibbotson data for the overall market. In this instance, the specific company risk premium must include a risk factor relating to the difference between the industry and the overall market. All this means is that the specific risk premium may be slightly higher if the industry is more risky than the entire market. The following exhibit illustrates the build up method.

"Safe" rate	7.44% ¹
Equity Risk Premium	6.90% ²
Small Company Risk Premium	5.30% ³
Specific Company Risk Premium	<u>3.00%⁴</u>
Discount Rate	22.64%
Less: Long Term Growth	<u>2.00%</u>
Capitalization Rate	<u>20.64%</u>

- (1) Federal Reserve Bulletin, 20-Year Treasury Bonds, week ended May 20, 1994.
- (2) Stocks, Bonds, Bills and Inflation 1994 Yearbook, Ibbotson Associates, difference between total returns on common stocks and long-term government bonds from 1926 to 1993 (12.3 - 5.4).
- (3) Stocks, Bonds, Bills and Inflation 1994 Yearbook, Ibbotson Associates, difference between total returns on small company stocks and common stocks from 1926 to 1993 (17.6 - 12.3).
- (4) Appraiser's judgment based on the analysis discussed throughout this report relative to the risk associated with the company's ability to perform in the future based on the economic, industry, financial, technological, management and other business risks.

Factor Rating Methods. Another method of determining a discount rate is known as the factor rating method. This method has become more popular among business brokers than actual appraisers. However, this method is not really different than the build up method. In this method, the specific company risk premium is broken down into numerous factors. Each factor is given a weighting. These weightings will vary depending upon the appraiser, but generally range from 0 to 3. The factors may include location of business, financial performance, management, liquidity, and so forth. In case you have not recognized these factors, they are all of the items that the appraiser should be considering in the risk analysis of the company.

There is nothing empirical about the 0 to 3 range for the factors. There is nothing empirical about the specific risk premium. It is judgement. As a matter of fact, it is subjective judgement. As appraisers, it is our job to be *objectively subjective*.

Weighted Average Cost of Capital. The next method for determining a discount rate is known as the weighted average cost of capital, otherwise known as a WACC. The WACC is a combination of the required rate of return on the equity of the company and the debt of the company. The WACC is used when the appraiser uses a debt free method to determine the value of the invested capital of the appraisal subject (invested capital = debt and equity).

The theory behind a WACC is simple. Since a company is financed partly with debt, and partly with equity, the return on investment should consider the risk of each element. Since the business owner is not directly responsible for the debt (assume no personal guarantee), the bank is the one that is at risk for that portion of the invested capital, and not the business owner. Therefore, the risk is reduced on that portion of the capital contribution to the business.

However, the business owner is completely at risk for the money that he or she invests in the business out of their own funds. This money should command a higher return due to the increased risk associated with that portion of the invested capital. So what does this all mean?

The after tax WACC is determined using a formula that look much worse than it actually is. Rather than including mathematical formulas, let's illustrate how to calculate a WACC.

Assume that after the appraiser analyzes the company, its industry and other pertinent factors, it is determined that the company's required rate of return on equity is 20 percent. The company is borrowing money from its bank at 9 percent. The company's effective tax rate is 40 percent. The company's condensed balance sheet looks like this:

ASSETS		LIABILITIES AND EQUITY	
Current Assets	\$ 500,000	Current Liabilities	\$ 200,000
Fixed Assets (net)	725,000	Long Term Debt*	300,000
Other Assets	<u>175,000</u>	Equity	<u>900,000</u>
TOTAL	<u>\$1,400,000</u>	TOTAL	<u>\$1,400,000</u>

* Long term debt contains all of the debt on the balance sheet. The short term portion of the long term debt would also be included in the calculation below.

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

$$\begin{aligned} & (d_e \times C_e) + (d_d[1-t] \times C_d) \\ & (.20 \times .75) + (.09[1-.40] \times .25) \\ & .15 + .01 = .16 \end{aligned}$$

The 20 percent discount rate and the 9 percent borrowing rate can easily be seen in the application of the formula. The .75 and the .25 are the percentage relationships of the equity and the debt in the total capital structure of the business. The capital structure of this business consists of Debt \$300,000 and Equity \$900,000, or \$1,200,000. The 1-t in the formula represents the fact that interest is tax deductible, so the true cost is the interest rate tax-adjusted (we assumed a 40 percent tax rate in this example).

One of the questions that arises, time and time again, is what capital structure should be used in the WACC equation? Should it be the actual capital structure for the subject company or should it be the "normal" capital structure for the industry? There are valid

arguments for both alternatives if the interest being valued is a controlling interest. A minority interest cannot change the capital structure of the business whereas the controlling interest can. This means that consideration should be given to the ability of the willing buyer to change things.

In a smaller business, it is not unusual to see much more debt as a percentage of the capital structure. This is frequently because the small company is undercapitalized and depends on debt to make up the difference. However, the small business owner frequently must guarantee this debt, and possibly use his or her residence or other belongings as additional security for the lender. In this instance, the debt starts to take on the attributes of equity because of the risk of personal loss to the owner. This could be justification for using a greater discount rate than the conventional WACC, but lower than the discount rate would be for pure equity. Once again, common sense and good judgement must be applied on a case by case basis.

Capitalization Rates. A capitalization rate is the rate utilized to convert a benefit stream for a single period into an indication of the fair market value of the property which is its source. This rate is the required rate of return for an income generating asset from which anticipated growth has been eliminated. As discussed previously, a capitalization rate is a discount rate minus growth.

Capitalization rates, similar to discount rates are determined by the market based on the duration and risk of the investment. They vary with time, even for the same investment and are sensitive to, and incorporate, long term inflationary expectations into the rate.

Capitalization rates also consider the risk that generally resides in the market, and must be adjusted to allow for the risk that is specific to the appraisal subject. Capitalization rates are founded on the principle of substitution, since they are based on the yields available on alternative investments. They will also depend on the nature of the benefit stream being capitalized, i.e. operating income, income before taxes, net income after taxes, dividends, or cash flow.

Factors Affecting Capitalization Rate Selection. Similar factors should be considered for the determination of capitalization rates as would be considered for the determination of discount rates. These include the external factors (those which management has no control over) and the internal factors (those over which management has the ability to control). There is little need to go over these factors again. However, do not minimize the importance of them.

Since capitalization rates are used in a single period model, the rate of growth assumed must be one that could reasonably be expected to be sustained indefinitely. The investment horizon for a closely-held business is generally presumed to be long term in nature and therefore, the assumption to be made is that the single benefit stream being capitalized will continue forever. What is the likelihood of a business growing at 25 percent per year indefinitely? Pretty slim! All businesses are subject to cycles similar to life, i.e.

rapid growth, slow growth, stagnation and death, therefore, the growth rate assumed in any given valuation must take into consideration the existing state of "maturity" of the subject company.

IX. Valuation Premiums and Discounts

The final value reached in the appraisal of a closely-held business may be more or less than the value that was calculated using the methods previously discussed in this outline. Valuation discounts and/or premiums may or may not be appropriate in every business valuation. The type and size of the discount(s) or premium(s) will vary depending on the starting point. The starting point will depend on which methods of valuation were used during the appraisal, as well as other factors, such as the sources of the information used to derive multiples or discount rates, and normalization adjustments .

Some of the common discounts and premiums that we see in business valuations include:

- Minority discount.
- Discount for lack of marketability.
- Key person discount.
- Control Premium.

The table appearing on the next page illustrates the type of value derived from the various methods discussed throughout this material. The appraiser needs to understand the type of value estimate that each of these methods yield in order to know what type of discounts and premiums may be appropriate in any given situation. For example, if the guideline company method is used to value a controlling interest in a closely-held company, the appraiser must realize that the result from this method is a marketable, minority interest. This means that a control premium will usually be added to bring the minority value to a control value. Then, the appraiser will take a discount for lack of marketability to bring the value from a marketable, control value to a non-marketable control value.

<u>Method</u>	<u>Control/Minority</u>	<u>Marketable/Non-marketable</u>
MARKET APPROACH		
Guideline Company Method	Minority	Marketable
Transaction Method-Public Cos.	Control	Marketable
Transaction Method-Private Cos.	Control	Non-marketable
ASSET BASED APPROACH		
Adjusted Book Value Method	Control	Non-marketable*

<u>Method</u>	<u>Control/Minority</u>	<u>Marketable/Non-marketable</u>
Liquidation Method	Control	Non-marketable
Cost To Create Method	Control	Non-marketable
*Some appraisers believe that the result is marketable.		
INCOME APPROACH		
Capitalization of Benefits Method	Control or Minority	Marketable or Non-marketable
Discounted Future Benefits Method	Control or Minority	Marketable or Non-marketable
Excess Earnings Method	Control	Non-marketable

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

A minority discount is basically the opposite of a premium for control. This type of discount is used to obtain the value of a non-controlling interest in the appraisal subject, when a control value is the starting point. Conversely, a control premium is used to determine the control value when the freely traded minority value is the starting point. The starting point is determined based on the method of valuation, the normalization adjustments made and the source of the discount or capitalization rates.

Minority discounts can be mathematically determined using control premiums that are measured in the public market. To illustrate this point, assume that the control value equals \$120 per share and the control premium equals 20%, the minority value would be calculated as follows:

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

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

$$\$120 \times 16.67\% = \$20 \text{ discount}$$

$$\$120 - \$20 = \$100 \text{ freely traded minority value}$$

Discount for Lack of Marketability. A discount for lack of marketability (DLOM) is used to compensate for the difficulty of selling shares of stock that are not traded on a stock exchange, compared with those that can be traded publicly. If an investor owns shares in

a public company, he or she can pick up the telephone, call a broker, and generally convert the investment into cash within three days. That is not the case with an investment in a closely-held business. Therefore, publicly traded stocks have an element of liquidity that closely-held shares do not have. This is the reason that a DLOM will be applied. It is intended to reflect the market's perceived reduction in value for not providing liquidity to the shareholder.

A DLOM may also be appropriate when the shares have either legal or contractual restrictions placed upon them. This may result due to restricted stock, buy-sell agreements, bank loan restrictions or other types of contracts that restrict the sale of the shares. Even when a 100 percent interest is the valuation subject, a DLOM may be appropriate if the owner cannot change the restrictions on the stock.

The most common sources of data for determining an appropriate level of a DLOM are studies involving restricted stock purchases or initial public offerings. Revenue Ruling 77-287 references the Institutional Investor Study¹³, which addresses restricted stock issues. Many studies have updated this one.

Restricted stock (or letter stock as it is sometimes called) is stock issued by a corporation that is not registered with the Securities and Exchange Commission (SEC) and cannot be readily sold into the public market. The stock is usually issued when a corporation is first going public, making an acquisition, or raising capital. The main reasons that corporations issue restricted stock, rather than tradable stock, are to avoid dilution of their stock price when an excessive number of shares are available for sale at any one time, and to avoid the costs of registering the securities with the SEC.

The registration exemption on restricted stocks is granted under Section 4(2) of the 1933 Securities Act. The intent of Section 4(2) is to allow "small" corporations the ability to raise capital without incurring the costs of a public offering. Regulation D, a safe harbor regulation, which became effective in 1982, falls under section 4(2) of the code and provides uniformity in federal and state securities laws regarding private placements of securities. Securities bought under Regulation D are subject to restrictions, the most important being that the securities cannot be resold without either registration under the Act, or an exemption.¹⁴ The exemptions for these securities are granted under Rule 144.

Rule 144 allows the limited resale of unregistered securities after a minimum holding period of two years. Resale is limited to the higher of 1 percent of outstanding stock or average weekly volume over a 4 week period prior to the sale, during any three month period. There is no quantity limitation after a four year holding period.¹⁵

Therefore, a holder of restricted stock must either register their securities with the SEC or qualify for a 144 exemption, in order to sell their stock on the public market. A holder of restricted stock can, however, trade the stock in a private transaction. Historically, when traded privately the restricted stock transaction was usually required to be registered with the SEC. However, in 1990, the SEC adopted rule 144a which relaxed the SEC filing

restrictions on private transactions. In 1997, the rule was relaxed, once again, reducing the holding period to only one year. The rule allows qualified institutional investors to trade unregistered securities among themselves without filing registration statements.¹⁶

The overall affect of these regulations on restricted stock, is that when issued, the corporation is not required to disclose a price and, on some occasions, even when traded, the value of restricted securities is still not a matter of public record.

Various studies have been performed before the one year restrictions became effective resulting in discounts of 25 percent to 45 percent for restricted shares. The shorter holding period should reduce the discount.

Another manner in which the business appraisal community and users of its services determines discounts for lack of marketability is with the use of closely-held companies that underwent an initial public offering (IPO) of its stock. In these instances, the value of the closely-held stock is measured before and after the company went public.

Robert W. Baird & Co., a regional investment banking firm has conducted eight studies comparing the prices in closely-held stock transactions, when no public market existed, with the prices of subsequent IPOs in the same stocks. The results of these studies reflect higher discounts than the restricted stock studies. The Baird studies examine prospectuses of companies that went public, comparing the pre-IPO transactions to the price at which the stock was traded in the public market. The differential was considered to be as a result of the new liquidity that investors now had. There is some controversy within the appraisal community as to how much of the price differential comes from liquidity issues as compared to other differences between the public and private company.

Another consideration in determining a discount for lack of marketability is the cost of flotation of a public offering. These costs are generally significant and will frequently include payments to attorneys, accountants, and investment bankers. The costs associated with smaller offerings can be as much as 25 to 30 percent of a small company's equity. This will probably have much less applicability with the small and medium sized companies that are appraised, since many of them could not go public because of their financial condition, among other reasons.

As far back as 1977, through Revenue Ruling 77-287, the Internal Revenue Service recognized the effectiveness of restricted stock study data in providing useful information for the quantification of discounts for lack of marketability. The Baird studies of transactions in closely-held stocks did not exist at that time, but the IRS and the courts have been receptive to this data to assist in quantifying discounts for lack of marketability.

It appears that discounts for lack of marketability determined by courts have increased somewhat in recent years compared to earlier years, due at least in part to the availability of the empirical data discussed. Cases in point, where evidence discussed in these paragraphs was presented, and where the discount for lack of marketability determined by

the court was clearly distinguished from any other discount, include Estate of Mark Gallo v Commissioner, 50 T.C.M. 470 (1985), 36 percent; Estate of Martha B. Watts, 87-2 U.S.T.C. paragraph 13726 (11th Cir., 1987), 51 T.C.M. 60 (1985), 35 percent; and Estate of Joyce V. Hall v United States (89 T.C. 19), 36 percent. District court decisions have recognized higher discounts for lack of marketability. A more recent court case did not allow the large discount taken by the taxpayer's appraiser, but the written opinion is worth reviewing as a learning tool. In Mandelbaum,¹⁷ despite the appraiser's research and logical argument, the court did not allow the 75 percent discount taken in the appraisal. The court, however, was extremely methodical in its opinion, and it should be used as a guide for factors to consider, particularly in the tax arena.

The IPO studies and court cases are proof that discounts can be justified that tend to be larger than those quoted from the restricted stock studies. Think about the appropriateness of the discounts that can be applicable to companies that are not large enough to go public! One of the best explanations of why a DLOM varies from case to case was written in an article published by Robert E. Moroney entitled "Why 25% Discount for Nonmarketability in One Valuation, 100% in Another?"¹⁸ In Moroney's article, he points out 11 different factors that should be considered in the application of a DLOM. These factors are as follows:

1. High dividend yield: Companies that pay dividends tend to be more marketable than companies that do not.
2. Bright growth prospects: Companies that have bright growth prospects are easier to sell than companies that do not. This makes them more marketable.
3. Swing value: If a block of stock has swing value, it may be more marketable than the typical small block of stock. This swing value could include a premium. This can be emphasized where a 2 percent interest exists with two 49 percent interests. The 2 percent interest can be worth quite a bit to either 49 percent interest if it will give that interest control of the company.
4. Restrictions on transfer: Restrictions on transfer make the stock less marketable due to the difficulty in selling them.
5. Buy-sell agreements: Buy-sell agreements can go either way. The agreement can create a market for the stock, making it more marketable, or the agreement can restrict the sale making it less marketable.
6. Stock's quality grade: The better the quality of the stock, the more marketable it will be. This can be evidenced by comparing the subject company to others for supporting strengths and weaknesses.
7. Controlling shareholder's honesty: The integrity of the controlling shareholder can make a big difference regarding the ability to sell a partial interest in a

company. If the controlling shareholder tends to deal with the other shareholders honestly, the other interests in that company tend to be more marketable.

8. Controlling shareholder's friendliness: Similar to the shareholder's honesty, the manner in which he or she deals with others can make the stock more marketable.
9. Prospects for the corporation: If a corporation has good prospects for the future, it will generally be more marketable.
10. Prospects for the industry: A company that is in an industry with good prospects will also generally be more marketable.
11. Mood of the investing public: When the investing public is bullish, they are more readily willing to make an investment. This can increase the marketability.

The article is worth reading since these items are discussed in more detail. A discussion of each of these factors relating to the appraisal subject is a good way to support the size of the discount. Obviously, these items can be used to determine if more or less of a discount is warranted, but it will not help you quantify the discount in terms of percentages.

Using all of the information discussed in this section should get you to a reasonable DLOM. The answer must make sense. Controlling interests will almost always be easier to sell than minority interests. As a matter of fact, most minority interests in closely-held companies cannot be sold. In reality, this makes them virtually worthless. A well thought out discussion of all factors to be considered can help support large discounts.

Key Person Discount

A key person discount is frequently seen in the valuation of a closely-held business when the "key" person is no longer going to be part of the business. This is often the case when the valuation is being performed for an estate where the decedent was the key person in the business. One way to determine the appropriate discount is to review case law for the size of discounts allowed in the past, and try to associate the facts of a particular case with the assignment at hand. However, appraiser should be careful not to let case law drive the valuation.

A better way to handle this discount may be to build the effect of the loss of the key person into the forecast of future operations or add an additional risk component to the discount rate. If the loss of the key person is a true loss, the business will probably suffer. The amount of the loss will be based on the importance of the key person, as well as how long it may take to find a replacement and bring that replacement up to the level where the key person had been.

Not all owners of businesses are key persons. A discount may not be applicable in every case. This can be illustrated as follows: The executor of an estate hired an appraiser to value a controlling interest in a company that made baked goods. The appraiser took a 20 percent discount due to the loss of the key person. Another appraiser was subsequently brought into the case by a beneficiary who challenged the valuation. What was found out was that the "so-called" key person was not so key after all. In fact, this individual was so conservative, that the company's growth was being stunted. His children took over the running of the company after his death and the company started to grow in a way that it never had experienced in the past.

Control Premium

The prorata value of a controlling interest in a closely-held company is said to be worth more than the value of a minority interest, due to the prerogatives of control that generally follow the controlling shares. An investor will generally pay more (a premium) for the rights that are considered to be part of the controlling interest. These prerogatives of control have appeared in various valuation treatises, and continue to hold true today. These rights are considered in assessing the size of the control premium. They include:

- Elect the board of directors.
- Appoint the management team.
- Determine compensation and perquisites.
- Set business policy.
- Acquire or liquidate assets.
- Make acquisitions or divestitures.
- Sell or acquire treasury stock.
- Register the stock for an IPO.
- Declare dividends.
- Change the articles of incorporation or bylaws of the corporation.

A control premium is the opposite of the minority discount. The control premium is used to determine the control value of a closely-held business when its freely traded minority value has been determined. This is generally true when the appraiser uses information from the public stock market as the starting point of the valuation.

A control premium may be appropriate for an interest which is less than 100 percent. In this instance, the size of the premium will depend on various factors relating to the amount of control available to the controlling interest. Some of these factors include:

- Cumulative vs. non-cumulative voting rights.
- Contractual restrictions, e.g. stockholder agreements.
- Financial condition of the business.
- State statutes.
- Distribution of ownership.

Certain valuation methods result in a control value of the company. Adding a control premium would result in double counting and should be avoided. For example, using merger and acquisition data would result in a control valuation, since the merger and acquisition data generally comes from the sale of entire companies. The excess earnings method is also considered to be a control valuation method, since the appraiser is required to adjust the balance sheet items to fair market value. A minority interest could not benefit from this, since they cannot sell off these assets.

Control premium studies are regularly used to assist the appraiser in determining the premium that is paid in the marketplace for control. However, are companies on Wall Street really buying control? Part of what they are buying is control, but there are many motivational factors that extend far beyond the control issue that cause acquirers to pay considerably more for a company. When I.B.M. purchased Lotus Development Corp. for about \$66 per share, Lotus's shares were trading at \$33. This would be a 100 percent premium! What about when MFS Communications bought UUNet? The acquired company had \$94.5 million in revenues, a \$63 million net loss, negative \$21 million of cash flow, but sold for \$2 billion.

Large companies purchase other companies for a variety of reasons besides control. Some of these reasons may include synergies between the two companies, the ability for the acquirer to enter a new market without starting from scratch, or the ability for the acquirer to enter a completely new line of business that it had not been in before that compliments its existing business. In fact, if you examine many of the Wall Street mega-deals of the past several years, the acquirer frequently begins selling off parts of the target company immediately to help pay for the acquisition. How does this factor into the control premium studies? It doesn't! Unfortunately, this is the best information available to the appraiser. It also explains why the courts are not willing to accept a blind application of these studies. The appraiser must think, and support the conclusions reached.

Application of Discounts and Premiums

Applying discounts and premiums properly, requires the appraiser to understand the impact of the discounts and premiums. Some discounts and premiums are additive, while others are multiplicative. For example, the application of minority discounts and discounts for lack of marketability are multiplicative as opposed to additive. This can be illustrated as follows: assume a minority discount of 25% and a DLOM of 35%. If these discounts were additive, the appraiser would add them together and apply a 60 percent discount from the control value. However, the total discount to be taken from the control value is calculated as:

$$1 - [(1 - .25)(1 - .35)] = .5125$$

For those of you who are not into mathematical equations this same example can be demonstrated as follows:

Value on a control, marketable basis	\$ 100.00
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Less minority discount (25%)		<u>25.00</u>
Value on a minority, marketable basis	\$	75.00
Less DLOM (35%)		<u>26.25</u>
Value (cumulative discount 51.25%)	\$	<u>48.75</u>

The application of a DLOM and discounts for legal restrictions, environmental restrictions, litigation discounts, etc. may overlap. Therefore, be aware of the possibility of double-counting. Small company discounts that relate to the sale of an entire business, as opposed to the DLOM comparing the control value to public prices, are mutually exclusive. The small company discount that is determinable from the Mergerstat Review data and from other sources is possibly caused by several factors, including but not limited to, lack of marketability. The DLOM is exactly what it is meant to be, and to add it to the small company discount when valuing an entire closely-held company would result in a double counting of the DLOM.

The discount from net asset value and the minority discount are mutually exclusive. When a discount from net asset value is applied, a minority discount is generally inappropriate. However, the discount from net asset value may apply to the subject company or to the underlying assets. This could result in discounts being applied at both the asset level and the entity level. This is the concept that is being used in family limited partnerships. If the appraisal subject is a minority block of shares in a closely-held investment, holding, or asset-intensive company, the discount from net asset value, used to obtain the freely traded value, and the DLOM are both applicable, and they are always multiplicative.

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17. *Bernard Mandelbaum, et al. v. Commissioner*, TC Memo 1995-255.
18. *Taxes*, May 1977.

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