

**Dream the Impossible Dream:  
Can Specific Company Risk Really be Quantified?  
by Gary R. Trugman CPA/ABV, MCBA, ASA, MVS**

**Introduction**

Risk from a financial perspective is defined as the uncertainty of achieving an expected outcome. Risk is uncertainty. The greater the amount of uncertainty, the greater amount of risk. The greater the risk, the less someone is willing to pay for something. From an investment standpoint, total risk associated with an investment consists of systematic and unsystematic risk.

Systematic risk is the risk of holding the market portfolio. As the market moves, each individual asset is more or less affected. To the extent that any asset participates in such general market moves, that asset contains systematic risk.<sup>1</sup>

Unsystematic risk is the risk associated with a specific investment. It is made up of a number of things including, but not limited to size, economic factors, industry factors and company factors. If an investor holds a diversified portfolio, this risk can be diversified away or at least minimized.

Very often, the owner of a closely-held business has all or most of his money invested in his business. As a result, the riskiness of the investment cannot be diversified away.

Everyone who performs business valuations knows that the selection of an appropriate discount rate for a closely held business is one of the most difficult parts of the assignment. We also know that a swing of a couple of percentage points can make a tremendous difference in the conclusion that we reach about the value of the business.

Whether sophisticated techniques, such as the modified capital asset pricing model are used, or just the seemingly simpler build up method, one thing remains pretty clear. While

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<sup>1</sup> [http://www.riskglossary.com/link/capital\\_asset\\_pricing\\_model.htm](http://www.riskglossary.com/link/capital_asset_pricing_model.htm).

there is empirical data to help us support risk free rates and equity risk premiums, there has been no empirical, quantifiable, observable evidence that helps us support the specific company risk premium that must be considered in the development of the discount rate.

The purpose of this paper is to highlight many of the factors that need to be considered in the development of an appropriate discount rate. However, as this paper will show, there is no empirical data or quantification methods that will provide the appraiser with the ability to pick the total unsystematic risk. All that has been written on this topic appears to come to the same conclusion, although there is empirical data available to support some of this risk, at the end of the process, the appraiser must weigh all of the facts and circumstances regarding the particular investment being valued and quantify a figure that is not necessarily quantifiable. When the appraiser is finished with the analysis required, whether or not he picked the correct unsystematic (specific company) risk premium will really be determined by whether the value derived makes sense to both a buyer and seller, either real or hypothetical.

### **What is a Discount Rate?**

A discount rate is a required rate of return, a yield rate used to convert expected future receipts into present value. The rate of return represents the total rate of return expected by the market, the rate necessary to attract capital to the subject investment. It is also referred to as a hurdle rate, opportunity cost of capital, alternative cost of capital, or weighted average cost of capital. It 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.

Another way to look at the selection of a discount rate is to look at the Principle of Substitution that we all learned at the beginning of our careers. The Principle of Substitution, in essence, states that no one 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 will gravitate towards the item with the lower price.

When looking at investments, if two investments have equal risk, an investor will invest in the item that will provide the greatest return on investment. Therefore, if one investment is

considered to be more risky than another, an investor would anticipate a higher rate of return. This can be demonstrated by the following chart:



Looking from bottom to top, shows a series of investments with increasing risk profiles. As you work your way higher up the chart, the rate of return on the investments increases. For example, an investor requires a higher rate of return on a Treasury Bond than a Treasury Bill due to the interest rate risk associated with holding the investment for a longer period of time. As one works up the chart, the investments get more risky and therefore the rate of return associated with the investment increases.

The question that the business appraiser asks himself (implicitly or explicitly) when valuing a closely held business is, if I invest in this closely held business, where on the spectrum does the risk fall, between large company and small company stocks, between small company stocks and junk bonds, higher than junk bonds? In considering the principle of substitution, we look at various investment opportunities and determine where on the spectrum the investment we are appraising falls.

Another way of looking at this is to consider what we do on a day to day basis when valuing a closely held business. When performing an income approach, we forecast future cash flows by looking at a single or multi-period model. This forecast is based on management's and our knowledge and understanding of the subject company, the economy at the time of the valuation and the industry in which it operates. The discount rate we build up (or develop using Modified CAPM) is supposed to represent the risk of the company being able to generate the cash flows that have been forecasted. Or, using the principle of substitution, how much of a return would an investor expect to receive from an investment in this company based on his knowledge of the company, its industry, the economy and the forecasted cash flows.

For simplification purposes, the build up method will be used for explanatory purposes. The components of the build up method are as follows:

|             |  |
|-------------|--|
| $R_f$       | Risk-free rate at the valuation date   |
| $R_m - R_f$ | Equity risk premium - the extra return an investor expects for investing in a portfolio of large cap stocks rather than a portfolio of long-term bonds |
| $RP_s$      | Size premium - the extra return an investor expects for investing in a portfolio of small cap stocks rather than a portfolio of large cap stocks       |
| $RP_u$      | Specific company risk  |

The first three items are observable and quantifiable. We can obtain risk-free rates from the Federal Reserve website. The equity risk premium and size premium can be obtained from *Stocks, Bonds, Bills and Inflation (SBBI)* or *Duff & Phelps Risk Premium Report* (combines equity risk premium and size premium).<sup>2</sup>

However, most of the specific company risk portion is not observable in the market place because it is specific to the company itself. The most recent versions of the *SBBI Valuation Edition* have included breakdowns of Industry Risk Premiums that can be used to quantify some of the specific company risk premium. However, unless the appraiser believes that

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<sup>2</sup> There are other sources for some of this information, but these are the most common.



all of the specific company risk is due to industry risk, this only helps the appraiser with part of the process. What about the rest of the risk?

### **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 factors that affect the selection of the appropriate rate. Also, affecting the risk of a company are 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 are another example of an external factor that is beyond the control of the owners. Sources and availability of capital to finance operations is another example. 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 some 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 of 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 the result of a good accounting system with proper controls. The ability of management to meet its budgets, forecasts and projections reflects on the quality of management.

The specific company risk premium is intended to adjust the rates of return available in the marketplace for the specific risk characteristics of the appraisal subject. These risk elements are not covered by the equity risk or size premiums. The specific company risk premium can increase considerably depending on the risk associated with the appraisal

subject. This premium can also be negative, which would occur in a situation where the appraisal subject is considered to be less risky than the alternative investments.

Many of the risk factors that are considered in determining an appropriate discount rate include the same factors that an appraiser uses to adjust multiples from guideline companies under the market approach. Once valuation multiples are determined for the guideline companies, it becomes necessary for the appraiser to adjust these multiples for the quantitative and qualitative differences between the guideline companies and the appraisal subject. The quantitative analysis is based on the financial statement analysis that the appraiser performs and can be broken down into categories such as:

- ▶ Size
- ▶ Growth
- ▶ Liquidity
- ▶ Profitability
- ▶ Turnover
- ▶ Leverage

The appraiser analyzes these areas through the use of common size financial statements, trend analysis and ratio analysis. The data for the subject company can be compared to benchmarking data for the industry or specific guideline companies, and conclusions are drawn regarding the strengths and weaknesses of the subject company. The appraiser then uses these conclusions to adjust the guideline company multiples or to quantify specific company risk.

Different risk factors considered by the appraiser will 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

There are other risk factors that the appraiser might consider, but these are some of the more important items. In the market approach, each of these risk factors should be analyzed from the point of view of how the appraisal subject differs from the guideline companies. In the income approach, these factors are considered in relationship to the source of the market derived rates. For example, since guideline companies tend to be in the same industry as the appraisal subject, an economic risk such as rising interest rates will probably have the same impact on the appraisal subject as the guideline companies. But if the appraisal subject operates in a smaller geographic area, the risk could be different if that part of the country is doing better or worse, since a larger, more diversified company could reduce its risk by not being concentrated in one area.

Most of the information about risk will be obtained from sources other than the financial statements. From an income approach perspective, the appraiser should be considering how these risk factors affect the subject company's ability to meet its forecasted income or cash flow.

**Economic Risk:** Economic risk is analyzed as part of the economic analysis performed by the appraiser. Revenue Ruling 59-60 suggests that consideration be given to the "the economic outlook in general and the condition and outlook of the specific industry in particular." The appraiser must determine how the subject company will be affected by changes in the economic environment it operates within. Economic conditions at the valuation date and how they affect the company must also be considered. For example, if you are appraising an automobile dealership, consideration would have to be given to the impact that interest rates have on auto loans. If the economic forecast is that interest rates are expected to go up, one would think that car sales may be impacted, if people can not afford to borrow at the higher rates.

To the extent that the guideline companies selected are good "comparables," economic risk will be incorporated in the pricing multiples. The adjustments to be made will more likely compensate for differences between the guideline company and the appraisal subject due to factors such as regional or local economic risk. The appraisal subject may operate in an area that is different from the guideline companies.



**Business Risk:** Business risk involves the analysis of the appraisal subject's business. The appraiser analyzes the company in terms of the risk associated with factors such as sales volatility and the volatility of the company's growth. If a company has revenues that fluctuate widely, a greater risk exists than if the company is somewhat stable. Volatile growth is obviously a greater risk when you consider the cash flow needs of a growing company. If growth is volatile, it may be difficult for the company to raise the necessary capital to foster that growth. Banks may be reluctant to lend money to a company that may not be able to repay its debt, due to volatile sales and profitability levels.

**Operating Risk:** The operating risks associated with a business include such factors as the fixed versus variable cost structure of the appraisal subject. The appraiser must analyze the cost structure of the appraisal subject to determine how much risk the company is exposed to as a result of the commitments and costs associated with the business operations. If a company has a high level of fixed costs, it may not bode well when revenues decrease. Obviously, if two companies are the same, except that one has higher fixed costs than the other, the company with the higher level of fixed costs would be considered more risky, and therefore all other things equal, worth less.

**Financial Risk:** The financial risks associated with a company pertain to the amount of leverage that the company uses, as well as the company's ability to cover its debt payments. The appraiser must pay particular attention to the capital structure of similar companies in order to analyze the appraisal subject. Companies that are heavily leveraged in times of rising interest rates can very possibly have trouble meeting their debt obligations. Debt structures should be analyzed to determine the level of risk of the appraisal subject.

Proper capital structure plays an important part in the financial success of a business. Companies that are over or under capitalized are not necessarily "comparable" to other companies that have a normal capital structure. A normal capital structure is one that is similar to other companies in the same industry.

In many instances, smaller companies that are heavily indebted are structured in that manner as a result of the owner of the business choosing to finance his or her perks, and therefore, the interest and the liability should be treated as non-operating items, since they do not affect the business operations of the company.



**Asset Risk:** Asset risk relates to the age and condition of the company's assets. Older assets represent a higher degree of risk for a company in terms of higher maintenance costs, lower productivity ability and functional and technological differences in available production. Not only do these items increase the level of expenditures for the company, but due to replacement needs, future cash flow needs may be greater as well. This further increases the risk of the enterprise.

**Product Risk:** Product risk relates to a company that has little diversification in its product line or a product line that may become extinct with the introduction of a newer product by a different company. An example of this would be the effect that fax machines had on the teletype machine.

**Market Risk:** Market risk relates to how geographically diversified the company is. If the company operates within a local marketplace, it can be greatly affected by changes in that local area. A better diversified market reduces the risk associated with a company. An illustration of market risk would be a local restaurant that operates in a community that is dependent on a military base for business. If the government decides to close the military base, what do you think would happen to the restaurant's business?

**Technological Risk:** New technology can adversely affect a company if it does not have the ability to keep up with other companies in the appraisal subject's industry. For example, if the company operates within the printing industry, four color printing presses provide a capability to companies that do not exist for companies without these types of machines. A commercial printing operation that does not have a particular type of press is at a competitive disadvantage, which increases the risk of the company.

**Regulatory Risk:** Regulatory agencies can also adversely affect a business. Environmental regulations are one of the best examples of the risks that a company faces. A chemical manufacturing company can be put out of business in a very short time by the Department of Environmental Protection. This increased risk will generally cause a willing buyer to pay less for a business, since he or she must be able to generate a faster return on investment in order to compensate for the possible impact of new regulations. Obviously, only those regulations that can be reasonably foreseen can be considered in this analysis. Do not forget about possible clean up costs if a problem is discovered. An

appraiser may not be able to quantify these costs, but the increased risk will affect market multiples, discount rates and capitalization rates.

**Legal Risk:** The cost of litigation in today's society can be the end of any successful business. Even if successful, a litigation can create such a financial burden on a business that it can be greatly exposed to the risk of being put out of business. Product liability claims, employee discrimination claims, anti-trust litigation and a host of other types of claims can significantly affect the value of a business enterprise.

Other factors to consider in the analysis of a subject company are:

- ▶ Economic conditions
- ▶ Industry condition
- ▶ Location of business
- ▶ Competition
- ▶ Depth of management
- ▶ Quality of management
- ▶ Barriers to entry into market

Most of these factors should not come as any great surprise. There must be a reason why every appraisal textbook and educational course suggests that an appraiser look into these items. Revenue Ruling 59-60 addresses many of these items.

**Economic Conditions:** Economic risk was previously discussed, so there is little reason to repeat the discussion. However, Revenue Ruling 59-60 emphasizes the economic conditions by discussing the risk associated with "boom" economies. The outlook for the economy should be considered, as it will affect most businesses in one way or another. However, the appraiser should be considering those factors that affect the subject company and draw conclusions regarding how these factors will affect the subject company.

**Industry Conditions:** Industry conditions are also important since the subject company will most likely be affected by changes in their industry. This is easily understood by considering the changes that have taken place, and continue to take place in the health care industry. Valuing a medical practice is not the same as it used to be. In fact, depending upon the type of medical practice, the outlook may not be optimistic.



Much has been written about analyzing a company's industry structure and how these factors can be applied to a subject company. They are additional tools that an appraiser can use during the analysis period.<sup>3</sup>

**Location of Business:** In real estate appraisal, the value of property is greatly affected by the three 'L's, location, location, location. Certain businesses are highly dependent on their locations, while others are not. Imagine valuing a retail business that is located on a road that is about to undergo major construction that is expected to last several years. Because of the construction, traffic flow will be diverted away from that road. How does the location of the business impact its value?

**Competition:** At a management interview, appraisers always ask information about the company's competitors. The reason for this is obvious. If a business suffers from the risk of competition, value is impacted. If you are valuing a local hardware store and find out that Home Depot is about to move in less than a mile down the road, wouldn't this suggest that the appraisal subject has a greater risk of lost business?

**Depth of Management:** Certainly, most smaller businesses have no depth in management. In fact, they are usually highly dependent on one key person. Revenue Ruling 59-60 discusses the possible loss of a key person as being a risk element. Several questions need to be considered by the appraiser. What is the likelihood of the loss of the key person? Sometimes the key person may not be the owner of the business. It may be a key salesperson. If the key person is lost, can a replacement be found? How long would it take to replace this person? At what cost? For many small businesses, the business may die with the owner. Frequently, we see businesses where the owner is also the highly technical person whose knowledge is in his or her head.

**Quality of Management:** Along with the depth in management is the quality of management. Does the business have adequate management to properly achieve the business goals, or does management have no control over its own destiny. What if the

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<sup>3</sup> See Michael Porter, "How Competitive Forces Shape Strategy," *Harvard Business Review* (May-June 1979): 137-145; Robert H. Waterman, Jr., Thomas J. Peters, and Julien R. Phillips, "Structure Is Not Organization," *Business Horizons* (June 1980): 14-26; Michael E. Porter, "Competitive Strategy: Techniques for Analyzing Industries and Competitors," *The Free Press* (1998).



business is being run by a good technical person, but that individual cannot manage people? Or, what if the management cannot see what the future has in store for the company?

**Barriers to Entry Into Market:** Another risk element is the difficulty that others may encounter in entering into the market. If the barriers to entry are non-existent, competition may become fierce, creating serious risk. If it is difficult to enter into the market, the company may be in a better position. This can hold true in situations where the company holds patents, copyrights and other types of intangibles.

### How Do We Quantify All of This Information?

Although much is written about analyzing companies, when the subject of quantifying the analysis into a number called the specific company risk premium, the textbooks do not have much to say. For example, in his book, Gary Trugman states:

There is no objective source of data to properly reflect or quantify the specific company risk premium. It is a matter of judgment and experience. There are no mystical tables that an appraiser can turn to, nor can the appraiser be totally comfortable with this portion of the assignment.<sup>4</sup>

Shannon Pratt, et al states the following:

The estimation of the effect of investment-specific (unsystematic) risk is often a matter for the analyst's professional judgment. These risk factors will be developed as part of the quantitative and qualitative analyses discussed in Part II of this book, and the significant positive and negative factors related to these analyses should be noted in the valuation report. These analyses will reveal many things that will affect the economic income projections, as well as the risk of achieving those projections. The analyst should be careful to distinguish between those factors that influence the *magnitude* of the projection (the numerator in the model) and those factors which affect the

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<sup>4</sup> Gary R. Trugman, *Understanding Business Valuation: A Practical Guide to Valuing Small to Medium Size Business* (New York: AICPA, 2<sup>nd</sup> edition): 331.

*degree of uncertainty* of achieving the mathematical expectation projection (that is, the *risk*, which determines the discount rate, the denominator in the model).

There is no specific model or formula for quantifying the exact effect of all the investment-specific risk factors on the discount rate. This is ultimately based on the analyst's experience and judgment.<sup>5</sup>

And, Jim Hitchner adds in:

The final component of the discount rate is the risk specific to the company being valued and/or the industry in which it operates. This is one of the most subjective areas of business valuation.<sup>6</sup>

Despite the agreement among these experts about the subjective nature of specific company risk, several authors have discussed methods to quantify this aspect of the discount rate.

In the September 1999 issue of *Business Valuation Review*, Frank C. Evans wrote an article entitled "How Do You Handle It?" In this article, Mr. Evans discusses assigning values to various risk factors, adding them up and using the calculated number as an indication of the specific company risk. A recreation of his example is contained in the following chart:

| Specific Company Risk Factors for XYZ Corporation |  | Incremental Risk (Ex. Only) |
|---|--|-----------------------------|
| 1.  | Operating history, volatility of revenues and earnings | 3.5                         |
| 2.  | Lack of management depth                               | 1.0                         |

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<sup>5</sup> Shannon P. Pratt, Robert F. Reilly and Robert P. Schweih, *Valuing a Business: The Analysis and Appraisal of Closely Held Companies* (New York: McGraw-Hill, 4<sup>th</sup> edition): 181.

<sup>6</sup> James R. Hitchner, *Financial Valuation: Applications and Models* (New Jersey: John Wiley & Sons, Inc., 1<sup>st</sup> edition): 144.

|  |  | Incremental Risk (Ex. Only) |
|--|--|-----------------------------|
| <b>Specific Company Risk Factors for XYZ Corporation</b> |  |                             |
| 3.   | Lack of access to capital resources                                  | 0.5                         |
| 4.   | Over reliance on key persons   | 1.0                         |
| 5.   | Lack of size and geographic diversification                          | 0.5                         |
| 6.   | Lack of customer diversification                                     | 0.0                         |
| 7.   | Lack of marketing resources in light of competition                  | 0.5                         |
| 8.   | Lack of purchasing power and other economies of scale                | 0.0                         |
| 9.   | Lack of product and market development resources                     | 0.5                         |
| 10.  | Over reliance on vendors/suppliers                                   | 0.0                         |
| 11.  | Limitations on distribution systems                                  | 0.0                         |
| 12.  | Limitations on financial reporting and controls                      | 0.5                         |
| <b>Positive Attributes</b>                               |  |                             |
| 1.   | Long term contracts with customers or unique product or market niche | 0.0                         |
| 2.   | Patents, copyrights, franchise rights, proprietary products          | -1.0                        |
| <b>Net increase to discount rate</b>                     |  | <b>7.0</b>                  |

Although intuitively this process looks quantifiable and supportable, it is still highly subjective. First of all, anyone looking at this list can probably think of at least another six items that could be added to it. In addition, there is no empirical support for any given number shown in the chart above. In a litigation environment, a good cross-examining attorney could spend hours leading the expert through an analysis of these factors. Before the expert was finished testifying, he would have explained the difference in value that would be derived from a .25 or .50 point difference, either positive or negative, of any one of these factors, and what the addition of another six factors could have on the discount rate.

Other writings on the subject of specific company risk discuss the factors to be considered



but do not assign a specific weight to them. Some authors discuss using a system of +, -, or neutral, or high, low, neutral for each factor. In the workpapers would be a list of factors that affect the discount rate. For each of these factors, the analyst would determine whether the factor would increase or decrease the discount rate, or whether it would have no effect, and how important the factor is. After going through all of these factors though, it still takes professional judgment to convert these factors into a risk premium. No one has written anything that empirically describes the amount of additional risk (or the deduction from risk) that any factor should have in numeric terms.

The addition of *SBBI*'s industry risk premium could help the appraiser quantify some of the specific company risk premium by taking the industry risk portion out of the quantification process. However, the question arises as to whether these risk premiums are sufficient to explain all of the industry risk or if only some of it is explained by the data. Nevertheless, as has been discussed throughout this paper, there are still other factors that have to be considered and although we may be able to empirically quantify some of the premium, we still cannot quantify it all.

Most recently, Peter Butler, ASA, CFA and Keith Pinkerton, ASA, CFA of Hooper Cornell, a CPA firm in Boise, Idaho published two articles regarding the quantification of specific company risk.<sup>7</sup> The abstract of the *Business Valuation Review* article read as follows:

Even though, according to traditional financial theory, public markets do not price company-specific risk, it does not mean that it does not exist or is not quantifiable for public comparables. In all instances, the company-specific risk premium for publicly traded companies is greater than 0% – yet appraisers start their benchmark analysis at 0% to determine an appropriate company-specific risk premium for privately held companies. Is this a flaw in our collective thinking?

In the article in *Business Valuation Update*, the editor states:

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<sup>7</sup> Peter Butler, ASA, CFA and Keith Pinkerton, ASA, CFA, "Company-Specific Risk – A Different Paradigm: A New Benchmark, *Business Valuation Review* (Spring 2006): 22-28; "Quantifying Company-Specific Risk: A New, Empirical Framework With Practical Applications," *Business Valuation Update* (February 2007): 1.

In this article, the authors have refined their earlier work by providing a detailed example of how to select a company-specific risk premium (CSRP) for a privately held company using benchmark CSRPs derived from publicly traded companies.

The concept behind the analysis performed by Messrs. Butler and Pinkerton is that although the marketplace does not price specific company risk into its rates of return, every company has specific company risk which can be quantified through the use of Total Beta. Total beta, which is a concept derived by Aswath Damadoran, Ph.D. measures a stock's riskiness relative to the market, which has a total beta of 1.0. It captures total risk, including systematic risk as well as size and specific company risk.<sup>8</sup>

The two articles go on to discuss the quantification of specific company risk for a privately held company. The authors use publicly traded guideline companies, calculate their total betas in order to calculate the guideline companies' specific company risk premium. This is followed by a comparison of the subject company to the guideline companies to determine the appropriate starting point for the specific company risk premium. Once the analyst has determined the strengths and weaknesses of the analysis, he determines the starting point for the quantification of the specific company risk for the subject company.

However, this appears to be similar to the use of the industry risk premium from *S&P*. It provides the analyst with a starting point for the specific company risk premium, but does not necessarily quantify all of the specific company risk. Therefore, some of the quantification will remain subjective. In support of this method, the authors state,

Moreover, if you do not consider any companies as appropriate guidelines, you must still perform some analysis (whether using this technique or the more subjective analyses) in quantifying company-specific risk. At least this method permits an appraiser to retrieve a Form 10-K from companies in the pertinent industry and analyze them for company-specific risk, since by definition, the risk is just that: company-specific and not incorporated in Beta (systematic risk) or the size premium. With this technique, we have created

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<sup>8</sup> *Quantifying Company-Specific Risk: A New, Empirical Framework With Practical Applications.*

an empirical approach to benchmark company-specific risk.

Some of Butler and Pinkerton's conclusions from their analysis are as follows:

1. All companies have specific company risk (including large publicly traded companies such as General Electric which has a specific company risk premium in the range of 3 to 4 percent). Therefore, starting at a specific company risk premium of 0 percent underestimates a company's cost of capital.
2. Due to their research indicating that companies such as Exxon Mobil and General Electric have specific company risk greater than 0 percent, Messrs. Butler and Pinkerton believe that most appraisers have probably underestimated the discount rate, and therefore, overvalued the companies they have valued.
3. The methodology derived does not work for all industries or all companies.

After seeing this presentation a number of times, I think I finally understand what Messrs. Butler and Pinkerton are doing. It is actually really good. However, they are explaining it incorrectly. The Butler-Pinkerton model, which is now available from BV Resources ([www.bvresources.com](http://www.bvresources.com)) is not really addressing quantifying the company specific risk, but rather it is allowing the analyst to determine the rate of return that is applicable to companies in the public market as a starting benchmark for the determination of the discount rate. This model will allow us to determine the total cost of equity for our guideline companies. Similar to the application of the guideline company method, the analyst can then adjust the cost of equity for the differences between the subject company and the guideline companies. This is clearly a great addition to what we have done in the past. We used to use Ibbotson's (now Morningstar's) *Cost of Capital Quarterly* to get an idea of the cost of equity by standard industrial classification code. We would adjust from there. Now, instead of using the entire industry, we can choose better guideline data as a starting point.

If good guideline companies cannot be located, the analyst can still use the Butler-Pinkerton model to calculate the cost of equity for all of the companies in the subject's industry. I think this model has great potential.



## Conclusion

All of the information written indicates that although we can quantify part of the discount rate, no matter what tools and techniques the appraiser uses, there is still a great deal of subjectivity involved in the process.

The bottom line in the determination of the specific company risk premium is to consider what the total rate of return would have to be given the risk of the benefit stream being discounted. While we use methods such as modified CAPM and the build up method to help quantify a discount rate, these are only tools; these methods do not help us quantify these rates. If anything, the final answer has to make sense. Remember, an appraiser's responsibility is to determine an estimate of value that makes sense. It is not to develop rates of return.

If we go back to the concept of the Principle of Substitution, the appraiser needs to ask himself, what rate of return would I expect for making an investment in this closely-held business? If you as the appraiser look at the facts and circumstances of the valuation subject and would require a rate of return of 20 percent to invest in this business based on alternative rates of return in the marketplace, do the facts and circumstances support this?

At the end of the day, the appraiser needs to pretend he is the buyer and ask, "Would I buy this business or business interest for this amount?" and then needs to pretend he is the seller and ask, "Would I sell this business or business interest for this amount?." If the answer to these questions are yes, then the discount rate probably makes sense and the specific company risk premium makes sense. If the answer to both questions is not yes, then no matter what tools or techniques you used to derive the final value, something in the analysis is incorrect (it could be the discount rate or one of many other factors) and the appraiser should go back and reconsider the various steps in the analysis to see what does not make sense. All the quantitative and qualitative techniques in the world will not work if the analyst does not consider all of the facts and circumstances of the valuation in an independent and thorough manner, and consider them in the final analysis.

## GARY R. TRUGMAN CPA/ABV, MCBA, ASA, MVS

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

Gary is currently on the American Institute of CPAs' ABV Examinations Committee and he is a former member of the AICPA's Subcommittee Working with the Judiciary, ABV Credentials Committee, Executive Committee of the Management Consulting Services Division, and the Business Valuation and Appraisal Subcommittee. He is currently Chairman of the Florida Institute of CPAs' Litigation, Forensic Accounting and Valuation Services Section and was formerly on the New Jersey Society of CPAs' Litigation Services Committee, Business Valuation Subcommittee (past-chairman) and Matrimonial Committee.

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

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

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