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Company-Specific Risk Is Not All That Specific

By Peter J. Butler, Valtrend (Eagle, Idaho, USA)

Is anything "company-specific" per se? Company-specific risk is not an ideal name for this risk. All firms face company-specific risks, many of which are somewhat similar across industries and companies. For example, how many firms have you valued that had to deal with the risk of customer concentration? How about dependence upon key personnel? Have you ever valued a company that had to deal with dependence on one (or just a few) suppliers?

If you have valued one company with one of these risks, you likely have valued many others. Thus, this risk is not all that unique or company-specific per se. I have never applied a company-specific risk premium (CSRP) to a subject company because I have found a risk to be so unique or so specific to that company only.[1]

If It's Not That 'Company-Specific,' What Is It?

So, for what it's worth, why have I ever applied a CSRP to my discount rate—if it is not all that unique per se? Because the premium that we are talking about is actually unsystematic risk. Definitions and semantics matter. Finance textbooks use the term "unsystematic"[2] and generally claim the following:

> Systematic risks (uncertainties regarding GDP, interest rates or inflation, for example) are ones that influence a large number of assets, each to a greater or lesser extent. On the other hand, unsystematic risk is one that affects a single asset (or a small group of assets) and can be diversified away.

Most academic textbooks generally do not use the term "CSRP," which has become ubiquitous in business valuation lexicon[3]—unfortunately.

Why Write Another Article on Company-Specific Risk?

A NACVA *QuickRead* article in late December 2019 stated:

> A typical range for the application of the CSRP is one percent to 10 percent. *However, it is not uncommon for an analyst to apply a CSRP of zero percent or even a negative percentage. In a zero percent or negative percent CSRP selection scenario, the implication is that the subject company provides less of an investment risk than an investment in a general equity stock market participant.*[4] (Emphasis added)

With all due respect to business valuation textbooks and instruction on this topic, I believe the

1 This, of course, is not to say that "company-specific" risk is the exact same from company to company. In fact, the impact of this risk can vary dramatically from company to company. "Key" personnel, for example, may be more key for some companies than for others. Obviously, the key-person risk for one company has no influence on another company, which may have its own key-person risk. From this perspective, the risk is unsystematic but not all that "unique" or "company-specific" per se.

2 Or idiosyncratic.

3 I also have used the term "CSRP" in many previous writings and presentations on the topic.

4 quickreadbuzz.com/2019/12/11/business-valuation-kirkland-henriquez-issues-in-estimating-2.

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above quote may be a common misconception in the industry. Unsystematic risk can never be negative or even 0%. Apple Inc.[5] (Ticker: AAPL) has (unpriced) unsystematic risk. Certainly, your small, privately held subject company, therefore, also has (in this case, priced) unsystematic risk.

If it is your determination that the subject company provides less of an investment risk than an investment in a "general equity stock market participant," then "simply" select a lower beta (and/or alleged size premium) than the general equity stock market participant—but never apply a 0%, or negative, unsystematic risk premium. How can a privately held company have a 0% (or negative) premium—if every single publicly traded stock has (unpriced) unsystematic risk? After all, we call it "risk" for a reason.

Accepted Theory

Systematic (beta) risk is the only risk that is priced for a general equity stock market participant since the participant's unsystematic risk can easily be diversified away in a well-diversified portfolio. Moreover, well-diversified portfolios are easy to come by in the publicly traded equity markets with zero commission trades and the explosion of exchange-traded and index funds.

However, it is not so easy to diversify this risk away for the typical hypothetical willing buyer/willing seller in the private markets. Typically, an investment in a (small) privately held company is one of, if not the largest, investments in one's portfolio. Simply stated, a private-business owner/prospective buyer of a private business is/will not be perfectly diversified, which is required for only systematic risk to be priced. Thus, your private subject company has priced, unsystematic risk (i.e., not a negative "premium" or even 0%) associated with an investment in its equity.

5 The largest company by market capitalization listed on a U.S. stock exchange (at more than $2 trillion) as of the writing of this article.

The Real World

It is commonly thought that the following is axiomatic:

> It is the risk of the investment itself, not the investor, that matters.

Why does every academic textbook state this, or words to that effect?

Simply stated, academia focuses on publicly traded stocks and assumes that every investor is perfectly diversified (to use the CAPM). If everyone is perfectly diversified, or can easily become so, then all investors are homogeneous and, therefore, irrelevant from an individual perspective. Thus, beta (in the CAPM) is all that matters.

This is not the world in which private markets typically operate, however. Therefore, the private company investor—in the fact that he or she does not own the "market portfolio" and is not perfectly diversified—matters, and matters greatly. So, academia and the public markets assume everyone is the same, perfectly diversified investor and, therefore, only pricing systematic risk. On the other hand, in many instances, business appraisers and private markets should assume marginal buyers are not perfectly diversified and, therefore, price systematic as well as unsystematic risk.

The Way Forward

One can use total beta (TB), defined as the standard deviation of a stock/standard deviation of the market, to calculate the general equity stock market participants' total cost of equity (TCOE), or their unsystematic risk premium—if necessary.[6]

(As a reminder, since unsystematic risk can be easily diversified away, do not use TB and TCOE when analyzing publicly traded stock for investment purposes). Then, and only then, can the analyst carefully compare the subject company to the guidelines to select a TCOE or unsystematic risk premium for the subject company since, as pointed out, this risk is not about any unique or "company-specific" risk per se.

> TCOE = risk-free rate + TB*(equity risk premium)

Notice that beta has been replaced with total beta in the CAPM.[7]

It's a simple adjustment based on modern portfolio theory (MPT). Thus, while we all understand that CAPM has its issues, if you accept this ubiquitous cost of capital model, which is taught in all universities (with a finance program) and is the most popular choice on Wall Street, no one should have any issues with using TB and the TCOE for privately held company valuation. (Please see discussion of a simplified, two-asset portfolio below and the resultant private company beta (PCB) as a supplement to TB's use.)

If you use TB, there is no need to select the subject company's beta (or industry risk premium in the buildup method), the alleged and dubious size premium, and then completely guess at the CSRP. So, you either have to select and defend three selections (beta/industry

6 I have been using total beta for the last 15 years and introduced the Butler Pinkerton Calculator in 2007. As most are aware, its use has been allegedly controversial—despite strong testimonials from finance Ph.D.s and many well-respected appraisers. As one will see in this article, total beta stems from the CAPM and modern "portfolio" theory. I did not invent the equations or the assumptions used here. In other words, there should be no controversy—if you accept the CAPM as a useful (but, of course, not perfect) tool to assist in the development of a cost of equity.

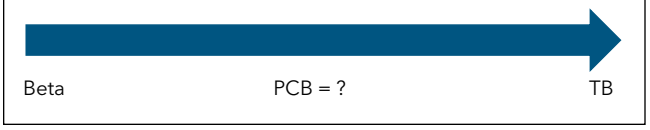
7 Professor Aswath Damodaran of New York University first introduced the TCOE equation to the business valuation community in the late 1990s—more than 20 years ago. Total beta was introduced in 1981 in the "The Beta Quotient: A New Measure of Portfolio Risk," written by Robert C. Camp and Arthur A. Eubank Jr., published in the *Journal of Portfolio Management*. *(Note: Total beta was referred to as the "beta quotient" in the article).*

risk premium, the size premium, and the CSRP) in the buildup method or just TB—and TB has market-based evidence, unlike the completely qualitative estimate of a CSRP. By qualitatively estimating the CSRP, analysts may be essentially guessing at the TCOE—the ultimate conclusion. Thus, I believe the choice is simple. Use publicly traded stock data to its maximum potential—which should include both beta and TB—at a minimum as a check on the ubiquitous buildup method.

The Beta Spectrum

Let's take a look at these metrics on the spectrum in Exhibit 1 to help explain the theory in more detail.

Exhibit 1. Beta Spectrum



On the left-hand side of the arrow, let's assume that an investor is perfectly (or can rather easily be "perfectly") diversified. At this point on the arrow, the only beta that matters (in the CAPM) would be the company's beta, whatever that is.

On the right-hand side of the arrow, let's assume that the investor has/will have a one-asset portfolio (i.e., the private company) and has pricing power. Here, the only beta that matters is the company's TB (using CAPM theory), whatever that is.

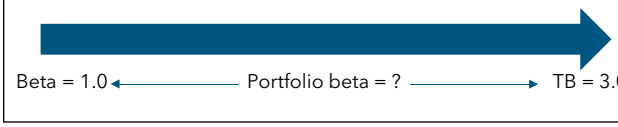
What about points on the spectrum between the two extreme points? After all, this is the proverbial "real world." We have never met a private (small) business owner/hypothetical willing buyer who is perfectly diversified or really anywhere close to it, nor have we met a (small) private business owner/hypothetical willing buyer whose entire portfolio is a privately held company.

Let's call the appropriate point on the arrow (wherever it is) the company's PCB—the beta that a less than perfectly diversified (but not completely undiversified) investor would require to invest in the privately held company.

We will use MPT to calculate this pertinent beta.

Let's look at another spectrum in Exhibit 2.

Exhibit 2. Another Beta Spectrum



One might assume that, if 50% of an investor's worth is tied up in the privately held business and the other 50% is invested in the "market portfolio," the portfolio beta would be the average of the betas (1.0 = the market beta and the appropriate TB (let's say 3.0, which may be a "typical" TB for a privately held company)) equal to 2.0. But that assumption is incorrect. Let's see why.

The Two-Asset Portfolio

In this two-asset portfolio, we have our private company and we have the market portfolio. Let's define the following:

- Б is the standard deviation of the respective investment;
- P stands for the investor's portfolio in this two-asset portfolio;
- ω stands for the weight of the particular investment in the two-asset portfolio;
- PC stands for private company;
- MP stands for market portfolio; and
- ṕ is the correlation of the private company with the market portfolio.

Thus, if we assume the standard deviation of the market portfolio is equal to 20%, a "typical"[8] historical standard deviation of the S&P 500, for example, we can calculate the following:

The standard deviation of the private company is equal to 60%.

$$б_{PC} = TB*б_{MP} = 3.0*20\% = 60\%$$

We can also calculate the correlation of the private business (Asset No. 1, where we assume that its beta is equal to 1.1 (a "typical" private company beta)) with the market portfolio (Asset No. 2):

$$ṕ = beta/TB = 1.1/3.0 = 0.37$$

… since TB also equals beta/ṕ.

Now we can calculate the standard deviation of our two-asset portfolio, using MPT:

$$Б_P = ((\omega_{PC}^2)(б_{PC}^2) + (\omega_{MP}^2)(б_{MP}^2) + 2(\omega_{PC}*\omega_{MP}*ṕ*б_{PC}*б_{MP}))^{\wedge.5}$$

$$Б_P = ((.5^2)(.6^2) + (.5^2)(.2^2) + 2(.5*.5*.37*.6*.2))^{\wedge.5} = 34.93\%$$

So, what is the portfolio beta for the two-asset portfolio?

$$Beta_P = Б_P/б_{MP} = 34.93\%/20\% = 1.75$$

which is less than 2.0 (the simple average of the respective betas) due to lack of perfect correlation (see 0.37 above, not 1.0) between the two assets, which is the essence of diversification. This beta can be considered a weighted average beta of the two-asset portfolio.

Thus, the PCB is calculated as follows:

$$Beta_P = \omega_{MP}*beta_{MP} + \omega_{PC}*PCB$$

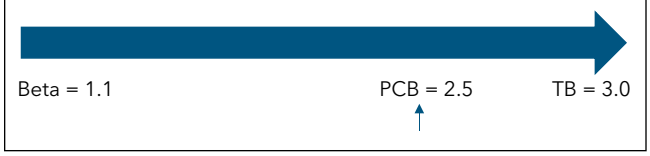
$$1.75 = .5*1.0 + .5*PCB$$

$$PCB = 2.50$$

The 'Dominance' of TB

Now, notice where this is on the beta spectrum (See Exhibit 3)?

Exhibit 3. Location of PCB on Beta Spectrum



Note that TB dominates in the fact that the PCB is greater than 2.05 ((3.0 + 1.1)/2).

Thus, it is easy to see why private-company appraisers should not only "know" what their subject company's appropriate beta is (assuming they are using the CAPM or modified CAPM), but it is equally important to "know" their private company's TB, since it is the dominant beta.

For more "evidence" regarding the dominance of TB in private-company valuations, please see Exhibit 4, which uses all of our previous assumptions but changes the importance, or the relative weighting, of the two assets.

Resultant TCOEs

Use guidelines to help select your company's beta and TB, then determine the appropriate PCB, if necessary. In the above example, not an atypical representation of a privately held company, let's see what the TCOE may look like using a risk-free rate (rf) of 2.1% and an equity risk premium (ERP) equal to 5.25%.

Certainly, the range of the (bolded) costs of equity in Exhibit 5 appears to be reasonable for many privately held companies.

Conclusion

8 Using the S&P 500 annual stock returns from 1928 through 2019 correlates to an annual standard deviation of 19.16%.

Exhibit 4. Changing Importance or the Relative Weighting of the Two Assets

Weight of Private Company in Two-Asset Portfolio	PCB	Comments
0.1%	1.10	PCB = beta
1%	1.14	
10%	1.48	
20%	1.81	
30%	2.09	Approximate average of beta and TB = 2.05
40%	2.31	
50%	**2.50**	"Typical" range of estimated weight of private company in portfolio: 50% to 100%
60%	**2.64**	
70%	**2.75**	
80%	**2.85**	
90%	**2.93**	
100%	**3.00**	PCB = TB

Exhibit 5. Using a Risk-Free Rate of 2.1% and an ERP of 5.25%

Weight of Private Company in Two-Asset Portfolio	PCB	TCOE
0.1%	1.10	7.9%
1%	1.14	8.1%
10%	1.48	9.9%
20%	1.81	11.6%
30%	2.09	13.1%
40%	2.31	14.2%
50%	**2.50**	**15.2%**
60%	**2.64**	**16.0%**
70%	**2.75**	**16.5%**
80%	**2.85**	**17.1%**
90%	**2.93**	**17.5%**
100%	**3.00**	**17.9%**

Since CAPM is the most popular model on Wall Street for the determination of the cost of equity for publicly traded stocks, then TB (and/or PCB) and the resultant TCOE (CAPM's natural extensions for privately held companies) also should be part of every appraiser's proverbial toolbox–at a minimum, as a reasonableness check on other cost of capital sources–to maximize the potential of the data you already have at your fingertips.

Peter J. Butler, CFA, ASA, is founding principal of Valtrend (Eagle, Idaho). He has championed a more quantitative and empirical approach to developing the cost of capital, which is embodied in the Butler Pinkerton Calculator, which he invented and co-developed. For more information, go to bvresources.com/products/butler-pinkerton-calculator.