

Comments on Butler-Pinkerton series of papers and Larry Kasper’s “The Butler Pinkerton Model for Company-Specific Risk – A Critique” published in the Winter 2008 edition of *Business Valuation Review*.

by Vincent Covrig, Ph.D., CFA and Dan McConaughy, Ph.D.
California State University, Northridge and Crowe Horwath LLP

Kasper’s critique (please see bullet points):

- The technique has not gained scholarly support.

Total Beta model has gained some but not extensive support in academia. The main reason is not that the Total Beta formulas are incorrect or that there is no theory behind it, it’s just that academia believes that the firm specific risk is diversifiable by investors and, therefore, shouldn’t exist. The main risk premiums accepted by most in academia are the three Fama-French risk factors (market, size and book to market) and the momentum factor recently established. However, almost all academic studies published in reputable academic journals use public companies’ data, and most drop the companies in the lowest deciles of the stocks traded on NYSE and NASDAQ, as well as the over-the-counter markets. We believe that for the valuation of private companies the story is different, and a company specific risk premium is warranted, and Total Beta is useful in quantifying the company-specific risk premium (CSRP).

- Total Beta does not measure the total firm-specific risk.

The Total Beta model measures total risk, which includes all known risk factors and the residual company specific risk.

- CSRP does not provide anything better than using financial theory and regression.

The Total Beta model is theoretically correct as a way to measure total risk and company specific risk.

- TCOE violates the return-risk relationship of CAPM and the Efficient Market Hypothesis.

*False. As explained in our paper, “A Method for Adjusting Public Companies’ Multiples for Firm Specific Risk”, forthcoming at *Business Valuation Review*. If the private company to be valued is owned by one or a few undiversified entrepreneurs, each of them with almost all of their wealth invested in the business, then the investors require an expected return - the firm’s cost of equity capital, based on total risk (i.e. Total Beta). The Total Beta method is just a special case of Portfolio and CAPM Theory (not the CAPM formula) when investors are completely undiversified. In practice there are cases like these. See for example the venture capital and private equity industry with cost of equity capital (COEC) in ranges up to 80%. See also the literature cited in McConaughy and Covrig paper.*

Since the private company markets and public company markets are not integrated, and thus there is little arbitrage opportunity between them, the application of CSRP for private companies does not violate the Efficient Market Hypotheses (there are three of them).

We agree that the liquid public companies should not be priced using TCOE.

- BPM is proprietary and is not subject to independent verifiability.

One can check the B-P Calculator and independently verify the accuracy of the Calculator. We just did this. The Calculator is user friendly and we did not experience any technical problems. The output is accurate.

The Total Beta models, whether derived from R2 or volatility ratios, are special cases of Portfolio Theory and CAPM modeling going back to Bill Sharpe's work in 1964. In this sense we agree with the quote from Damodaran in Kasper's paper, on page 239, that Total Beta "is just the standard deviation of the stock divided by the standard deviation of the market – it is an extension of conventional portfolio theory to the undiversified investor." The Total Beta concept was used in different forms since early 1980s, and none of us, the researchers cited in our paper, or McConaughy and Covrig, or Butler and Pinkerton should attribute their name next to the model. The Butler-Pinkerton Calculator posted on www.bvmarketdata.com is just that, a calculator introduced by Butler and Pinkerton to calculate Total Beta, Total Cost of Equity Capital and CSRP using the previously developed methods.

Summary:

The CSRP calculated as TCOE less CAPM + Size, is the upper bound of the CSRP. If the business owners are partially diversified then the actual CSRP should be smaller than the one implied by Total Beta. So, the appraiser can mix the quantitative approach with subjective analysis.

We believe that the Butler-Pinkerton Calculator is a useful tool for appraisers who want a quantitative way to assess the maximum CSRP. What the Total Beta and calculator computes is the maximum or upper bound for the CSRP. A good appraisal should also use subjective techniques and judgment to determine the appropriate CSRP for the subject company.

Note from Butler and Pinkerton:

We agree. The BPM provides empirical benchmarks for qualitative analyses. If you determine that the business owner is diversified in some sense, then the guideline CSRPs determined from the Calculator are the maximum reference points. This assessment, however, may be more appropriate for calculation of investment value, and will require analysis of a business owner's total portfolio – often times, a practical impossibility. Under a hypothetical willing buyer and willing seller perspective, or fair market value standard of value, these maximum indications of CSRP are most appropriate to consider when comparing to your private company.