



Corporate Finance

A Focused Approach

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Michael C. Ehrhardt

University of Tennessee

Eugene F. Brigham

University of Florida



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Michael C. Ehrhardt/Eugene F. Brigham

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9.7 Bond-Yield-Plus-Risk-Premium Approach

Some analysts use a subjective, ad hoc procedure to estimate a firm's cost of common equity: They simply add a judgmental risk premium of 3 to 5 percentage points to the interest rate on the firm's own long-term debt. It is logical to think that firms with risky, low-rated, and consequently high-interest-rate debt will also have risky, high-cost equity, and the procedure of basing the cost of equity on a readily observable debt cost utilizes this logic. In this approach,

$$r_s = \text{Bond yield} + \text{Bond risk premium}$$

(9-8)

The bonds of NCC have a yield of 11.0%. If its bond risk premium is estimated as 3.7%, its estimated cost of equity is 14.7%:

$$r_s = 11.0\% + 3.7\% = 14.7\%$$

Because the 3.7% risk premium is a judgmental estimate, the estimated value of r_s is also judgmental. Empirical work suggests that the risk premium over a firm's own bond yield has generally ranged from 3 to 5 percentage points, with recent values close to 3%. With such a large range, this method is not likely to produce a precise cost of equity. However, it can get us "into the right ballpark."

SELF-TEST

What is the reasoning behind the bond-yield-plus-risk-premium approach?

A company's bond yield is 7%. If the appropriate bond risk premium is 3.5%, what is r_s , based on the bond-yield-plus-risk-premium approach? (10.5%)

9.8 Comparison of the CAPM, DCF, and Bond-Yield-Plus-Risk-Premium Methods

We have discussed three methods for estimating the required return on common stock. For NCC, the CAPM estimate is 14.6%, the DCF constant growth estimate is 14.5%, and the bond-yield-plus-risk-premium is 14.7%. The overall average of these three methods is $(14.6\% + 14.5\% + 14.7\%)/3 = 14.6\%$. These results are unusually consistent, so it would make little difference which one we used. However, if the methods produced widely varied estimates, then a financial analyst would have to use his or her judgment as to the relative merits of each estimate and then choose the estimate that seemed most reasonable under the circumstances.

Recent surveys found that the CAPM approach is by far the most widely used method. Although most firms use more than one method, almost 74% of respondents in one survey, and 85% in the other, used the CAPM.¹⁷ This is in sharp contrast to a 1982 survey, which found that only 30% of respondents used the CAPM.¹⁸ Approximately 16% now use the DCF approach, down from 31% in 1982. The bond-yield-plus-risk-premium is used primarily by companies that are not publicly traded.

¹⁷See John R. Graham and Campbell Harvey, "The Theory and Practice of Corporate Finance: Evidence from the Field," *Journal of Financial Economics*, 2001, pp. 187–243, and the paper cited in footnote 9. Interestingly, a growing number of firms (about 34%) also are using CAPM-type models with more than one factor. Of these firms, over 40% include factors for interest-rate risk, foreign exchange risk, and business cycle risk (proxied by gross domestic product). More than 20% of these firms include a factor for inflation, size, and exposure to particular commodity prices. Less than 20% of these firms make adjustments due to distress factors, book-to-market ratios, or momentum factors.

¹⁸See Lawrence J. Gitman and Vincent Mercurio, "Cost of Capital Techniques Used by Major U.S. Firms: Survey Analysis of *Fortune's* 1000," *Financial Management*, 1982, pp. 21–29.