

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB EX PARTE NO. 664

**METHODOLOGY TO BE EMPLOYED IN DETERMINING
THE RAILROAD INDUSTRY'S COST OF CAPITAL**

**COMMENTS OF THE
U.S. DEPARTMENT OF AGRICULTURE**

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AUTHORITY AND INTEREST

The Secretary of Agriculture is charged with the responsibility under the Agricultural Adjustment Act of 1938 and the Agricultural Marketing Act of 1946 to represent the interests of agricultural producers and shippers in improving transportation services and facilities by, among other things, initiating and participating in Surface Transportation Board (Board) proceedings involving rates, charges, tariffs, practices, and services.

INTRODUCTION

The Department of Agriculture (USDA) commends the Board for its proposed use of a capital asset pricing model (CAPM) when estimating the railroad industry's cost of equity capital. The record of this proceeding presents compelling evidence that the Board's current discounted cash flow (DCF) methodology overestimates the cost of equity. The Board carefully considered the record developed in this proceeding and chose a more modern and accurate method to estimate cost of equity. USDA supports the Board's proposed CAPM¹ model subject to several recommendations.

An accurate estimate of the railroad industry's cost of capital is important because the Interstate Commerce Commission Termination Act (ICCTA) and the Staggers Rail Act require the Board to balance the railroad industry's need for an adequate return on

¹ CAPM calculates a firm's cost of equity by comparing a company's risk profile to that of the market as a whole using the formula: $k = r_f + \beta(rp_m)$, where k equals the cost of equity; r_f is the rate of return available on a risk-free security; β is the measure of the systematic risk of a stock, relative to the market as a whole; and rp_m is the equity risk premium for the market as a whole.

investment with protecting shippers from excessive rail rates.² As such, the methods used to determine railroad cost of capital should be fair to both railroads and shippers.

The accuracy of the cost of capital estimates can have important ramifications for our nation's agricultural producers and shippers because it plays an important role in the regulation of railroads. The Board uses the cost of capital to evaluate the adequacy of individual railroads' revenue each year. In addition, cost of capital plays an important role when shippers appeal rail rates and oppose rail line abandonment proposals.

USDA RECOMMENDATIONS

USDA supports the use of a levered β ³ when using CAPM to calculate the cost of equity. Besides giving a more realistic estimation of the cost of capital,⁴ USDA believes that CAPM estimates of the cost of equity will be less affected by volatility in railroad stock prices. One major shortcoming of the Board's present DCF methodology is that it results in a sharply rising cost of equity in response to rising railroad profitability and stock prices. Thus, the present calculations of cost of equity appear to reflect the profitability of the railroad industry rather than increased risk or the cost of equity capital.

² Rail Transportation Policy, ICC Termination Act of 1995, §10101.

³ An unlevered β is equal to the covariance between a company's stock and the market as a whole ($\beta = \sigma_{(\text{stock, market})} \div \sigma^2_{(\text{market})}$). An unlevered β , because it assumes that the firm is financed with 100 percent equity does not reflect risk associated with the relative proportions of debt and equity in the firm. A levered β is adjusted for the financial leverage of a firm and is equal to unlevered $\beta * [1 + (1 - \text{Corporate Tax Rate}) * (\text{Debt capital} \div \text{Equity capital})]$. Since the Board does not account for and does not consider the tax-shielding effects of a company's tax rate in its cost of capital determination, the equation for a levered β simplifies to: Levered $\beta = \text{Unlevered } \beta * [1 + (\text{Debt capital} \div \text{Equity capital})]$. Western Coal Transportation League reply comments in Ex Parte 558 (Sub. No. 10), July 25, 2007, VS Crowley/Fapp, pg. 7.

⁴ An unlevered β assumes that a firm uses 100 percent equity financing, which can result in an unrealistically low estimate for the cost of equity. In contrast, a levered β takes into account the incremental risk associated with a company's debt.

The relative insensitivity of the levered β CAPM model to changes in the capital structure of a firm is expected to break the circularity between railroad freight rates, the level of railroad profitability, and the cost of capital. As railroad stock prices increase, the ratio of debt capital to equity capital will decrease, resulting in a smaller adjustment to the unlevered β , assuming all other factors are kept constant (see footnote 3 above).

In addition, whether the Board decides to use either a levered or unlevered β , USDA opposes the use of an assumption that β equals 1. The record of this proceeding clearly shows that the β for the railroad industry is substantially below 1. USDA notes that in the Western Coal Traffic League's (WCTL) reply comments to Ex Parte No. 558, the unlevered β estimates for individual railroads range from 0.37 to 0.64 and the levered β estimates range from 0.65 to 0.82 (VS Crowley/Fapp, pg. 10-11). In addition, the Ibbotson estimates for individual railroad unlevered β range from 0.27 to 0.69 and the estimates for levered β range from 0.37 to 0.97 (WCTL, reply comments, Ex Parte No. 558, July 25, 2007, appendix). Based upon the record in this proceeding, USDA supports using actual levered betas because the estimated cost of equity is likely to be substantially overstated by assuming that β is equal to 1.

The record in this proceeding indicates that reliable estimates of β are readily available from a number of reputable firms. Thus, USDA questions whether it is cost-effective and necessary for the Board to use its limited resources to calculate its own β estimates for calculating the cost of equity capital.

CONCLUSION

USDA supports the Board's proposed CAPM model subject to several recommendations:

- The Board use a levered β .
- The Board use an actual estimate of β in the calculation of the cost of equity capital rather than the use of an assumption that β is equal to 1.
- The Board consider using levered β estimates developed by respected financial services firms rather than calculating its own estimates of β .

Respectively submitted,

A handwritten signature in black ink, appearing to read "Bruce I. Knight", written in a cursive style.

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CERTIFICATE OF SERVICE

I, Bruce Blanton, certify that on this 27th day of September, 2007, I caused a copy of the foregoing document to be served by first-class mail, postage prepaid, on all parties of record in STB Ex Parte No. 664.



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