Volume 2: Cost of Capital: Expert Opinion of James Coyne- Capital Structure and Risk Profile

Q. With respect to C&T's risk premium analysis and graph on page 49:

a) Can C&T confirm that it is using the long Treasury yield in both the risk premium and as an independent variable, that is, they are on both sides of the equation? Please re-run the regression equation as the allowed ROE against the long Treasury yield and provide the results. Please provide all the underlying data to replicate Figure 30 in machine readable form (Excel).

b) Please confirm that the automatic ROE mechanism used by the Board before 2012 automatically included an inverse relationship between the ROE and forecast long Canada yield by the 75% adjustment rate.

A. a) The long treasury yield is on the right-hand side of the equation (the independent variable). The left-hand side of the equation (the dependent variable) is the allowed return less the long bond yield. This is the same methodology adopted by the FERC. This does not automatically generate a negative slope coefficient.

Please see Attachment A. Attachment A is available in electronic format on Newfoundland Power's stranded website at: https://ftp.nfpower.ca/.

As shown in Attachment A, the regression equation requested in the data request produces the same predicted ROE results as Concentric's risk premium analysis. The regression analysis in Attachment A confirms the positive relationship between Treasury bond yields and authorized returns. That is, increases in Treasury bond yields result in increases in the required ROE, although by a smaller amount than the change in the government bond yield itself.

Concentric further notes that the R^2 for the regression equation used in our risk premium analysis (Exhibit JMC-9) is 0.82, which indicates that the risk premium analysis can be used to predict authorized ROEs for regulated utilities based on changes in government bond yields.

Finally, Concentric's risk premium results are consistent with the conclusions reached by Dr. S. Keith Berry in his 1998 article, which also found an inverse relationship between bond yields and the equity risk premium.[1]

b) Confirmed.

[1] *See e.g.*, S. Keith Berry, *Interest Rate Risk and Utility Risk Premia during 1982-93*, Managerial and Decision Economics, Vol. 19, No. 2 (March, 1998), in which the author used a methodology similar to the regression approach described below, including using allowed ROEs as the relevant data source, and came to similar conclusions regarding the inverse relationship between risk premia and interest rates.