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Requête en révision
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Préambule :

La Régie, dans sa décision D-99-11 relative à la demande tarifaire de Gaz Métropolitain pour l'année tarifaire 1998-1999, écrit, à la page 45 de la décision, au sujet des méthodes « prime de risque » et «MEAF » ce qui suit :

« Bien que SCGM ait également utilisé dans son approche des données des marchés financiers américains, la Régie considère que les données canadiennes sont plus représentatives du marché des capitaux et de la fiscalité au Canada. Elle est d'accord cependant qu'avec l'intégration des marchés financiers internationaux, il pourrait être raisonnable de tenir compte des données US en leur attribuant un poids moins élevé. »

Plus bas, à la même page, la Régie ajoute :

« De plus, la Régie pondère les cinq méthodes soumises par SCGM pour estimer la prime de risque du marché avec des facteurs de 80% pour les études canadiennes et 20% pour les études américaines. Cette pondération résulte en une prime de risque du marché de 6,44%. »

Question :

Que pensez-vous d'une telle pondération 80% - 20% et pourquoi ?

Réponse :

Market Risk Premium

For the market risk premium component of the CAPM, I used 6.5%. This estimate was based on the results of both forward-looking and historical studies of long-term risk premiums in the capital markets. Five studies guided the estimate, three of which are historical and two are prospective. Of the five studies, three are from Canadian capital

market data, and two from U.S. data.

(1) The Hatch-White compilation of historical returns on Canadian securities from 1950 to 1987 shows that a broad market sample of common stocks outperformed long-term Canada bonds by 6.9%, or close to 7%.

(2) The annual update to the Canadian Institute of Actuaries study, Report on Canadian Economic Statistics 1924 - 1996, shows that the average observed aggregate risk premium between stocks and long-term government bonds over a very long period is equal to 5.8%.

(3) The Canadian results are broadly consistent with the results of the landmark Ibbotson Associates study of historical returns in U.S. capital markets. The Ibbotson Associates study, Stocks, Bonds, Bills, and Inflation, 1997 Yearbook, compiles historical security returns from 1926 to 1996 and shows that a broad market sample of common stocks outperformed long-term U.S. government bonds by 7.4%.

(4) A DCF analysis applied to the Canadian aggregate equity market using Value Line's "Investment Survey for Windows" software suggested a market risk premium of 6.5%.

(5) The same DCF analysis applied to the U.S. aggregate equity market revealed a market risk premium of 5.8%.

Recapitulating, the market risk premium estimates from the five studies are as follows:

Hatch-White	6.9%
Cdn. Inst. Actuaries	5.8%
Ibbotson Associates	7.4%
Value Line Canada	6.5%
Value Line U.S.	5.8%

Average	6.5%

The average estimate from all the historical and prospective estimates is 6.5%, which is my final estimate of the market risk premium.

The fundamental issue addressed by the question and to be resolved is how much weight should be given to each of the five studies. Three fundamental premises should guide the choice of weights. In order of importance, they are as follows. First, equal weight should be accorded to historical and prospective risk premium results, whether Canadian or U.S.. Second, more weight should be given to a more statistically reliable study than a less reliable study by virtue of sample size. The larger and the more diverse is the sample size, the more reliable is the end result. Third, Canadian results should take precedence over the U.S. results only if the first two premises have been met. Let us examine the aforementioned studies in terms of those premises.

Historical Vs Prospective Risk Premium

Historical (realized) risk premiums as well as prospective (expected) risk premiums calculated from a DCF analysis of the overall market provide relevant information to the investor with regard to the market risk premium. Equal weight should be accorded to historical and prospective risk premium results. Each proxy brings information to the judgement process from a different light. Neither proxy is without blemish, each has advantages and shortcomings. Historical risk premiums are available and easily verifiable, but may no longer be applicable if structural shifts have occurred. Prospective risk premium estimate may be more relevant since they encompass both history and current changes, but are nevertheless imperfect proxies. Therefore, equal weight is to be given to each of the five studies in respect to historical and prospective studies, regardless of origin.

Canadian Vs U.S. Studies

Given that equal weight should be accorded to historical and prospective studies, the next question is whether it matters whether such studies are performed using Canadian or U.S. market data.

I believe that at least equal weight should be given to each of the five aforementioned studies of the market risk premium for the following reasons.

1. The prospective risk premium study of the U.S. equity market using the DCF approach was performed on a very large sample of dividend-paying companies, close to 900 companies, in contrast to the same study performed on the Canadian equity market which was made up of only 137 companies, and several of those did not even have earnings/dividend forecasts. Therefore, the statistical reliability of the U.S. study far exceeds that of the Canadian study in view of the very large sample size.

2. Another reason for relying on U.S. capital market data when conducting prospective risk premium studies using the DCF model is that analysts' long-term growth forecasts are widely available for U.S. companies in contrast to Canadian markets where such forecasts are very sparse, if at all available. It is therefore instructive to examine the results of DCF-based prospective risk premium studies where investors' growth expectations data are readily available for such a large sample of companies.

3. The degree of integration between the Canadian and U.S. capital markets has increased exponentially in recent years, as the barriers to entry in global capital markets have eroded. Canadian investors and analysts do compare U.S. utilities with Canadian utilities when making investment decisions.

Not only is a continental energy market developing, but also a dramatic development of the last decade has been the integration of world financial markets into one global "supermarket". Global corporations and global investors are well-positioned to access this market, and arbitrage short-run disparities in the cost of funds between markets. Their activity tends to drive national capital costs toward a single global standard. When capital flows freely from one location to another, competitive forces of supply and demand will quickly eliminate any price or rate of return disparities, other than those arising from differences in risk. Thus cost of capital differences cannot persist in an integrated capital market. The long-run tendency for real interest rates and exchange rates to revert to parity suggests an integrated capital market.

Capital markets are radically different now than in the 1980s. Transactions, diversification, and taxation barriers to investment in foreign securities by Canadian investors have eroded. It is now easier to purchase and sell shares traded on foreign exchanges. More shares of foreign companies are now interlisted on Canadian and US exchanges. Investors have almost unlimited access to equity investments in foreign companies. A wide range of global and regional investment alternatives is available to investors through mutual funds based in Canada and the US.

Not only do investors have relatively free access to foreign securities in their personal portfolios, the foreign content restrictions have been loosened considerably for retirement portfolios (RRSPs). The current level of foreign content permitted in RRSP portfolios is 20%, which can effectively be increased significantly by investing the remaining 80% in shares of mutual funds which in turn have a foreign content.

International communications networks and equipment have facilitated the access to information on foreign securities. Global diversification is actively promoted by the investment community.

In short, the integration and linkages between the U.S. and Canadian capital markets have greatly solidified in recent years, and U.S. data are thus clearly as relevant as Canadian data to Canadian investors.

Some have argued that the tax differences between Canada and the U.S. bias the comparisons between the two markets. While I did not conduct a study of the U.S. vs Canada tax system, as this was well outside the scope of my testimony, I note that the tax regime differentials as between Canada and the U.S. are relatively minor. The statutory federal tax rate on all income is very similar to the tax rate on equity income in Canada[1].

Fundamentally, the core determinant of expected returns is risk and not taxability,

1 An individual taxable investor receiving $100 in dividends or capital gains, whether he or she resides in Canada or in the U.S., pays very similar taxes.

as some might suggest. To wit, the paradigms of financial theory, including the Capital Asset Pricing Model and the Arbitrage Pricing Model, posit fundamental relationships between return and risk. Investors will examine the risk-return trade off offered by various securities first, and as a secondary matter, the taxability issue. And this assumes that they are taxable in the first place.

The risk similarities between Canadian and U.S. stocks far outweigh the dissimilarities in tax regime that one might point out. Besides, taxes are not relevant for non-taxable investors such as pension funds which conduct a good part of the trading on the market.

Conclusion

Based on the relative statistical reliability of the studies, the high degree of market integration, and the need to weigh both historical and prospective market risk premium data, I believe that equal weight should be given to each of the five studies used in estimating the market risk premium.