

**Q. McShane Evidence - Historic Equity Risk Premium tests, pages 90-**

- a. Please confirm that experienced utility risk premiums were lower in Canada than in the US, but that Ms. McShane judges that this does not mean Canadian utilities are lower risk than US utilities.**
- b. Please provide the data underlying Table 26 so that the results can be replicated (Excel format)**
- c. Please confirm that the data on utility risk premiums on page 92 (6.3%-7.2%) are greater than the experienced equity market risk premium in Canada and Ms. McShane judges Canadian utilities to have greater risk than the Canadian stock market as a whole.**
- d. Please provide any evidence that Ms. McShane is aware of that utility analyst growth forecasts are unbiased.**
- e. Please confirm that the analyst growth forecast are of earnings and not dividends as required in the constant growth DCF model? If not why not.**
- f. Please confirm that since earnings are more unstable than dividends (like the arithmetic versus geometric comparison) the expected growth rate in dividends would be less than that for earnings even if the earnings growth rates are unbiased.**

- A. a.** It is confirmed. The achieved utility equity risk premium in Canada is only lower due to historically higher bond returns in Canada, not because utility equity returns were lower in Canada.

Utilities Index Return in Canada vs.	Difference in Canadian Utility Equity Return	Difference in Canadian Bond Return:		Difference in Canadian Utility Risk Premium Over:	
		Total Return	Income Return	Total Return	Income Return
S&P/ Moody's Electric	+1.1%	+1.3%	+0.7	-0.2%	-0.3%
S&P/Moody's Gas	+0.2%	+1.3%	+0.7	-1.1%	-1.2%

- b.** The underlying data for Table 26 are provided in “CA-NP-378 b Attachment 1”.
- c.** Table 27, page 92 estimates utility risk premiums at the current forecast long Canada bond yield of 3.5% recognizing the inverse relationship that exists between utility equity risk premiums and government bond yields. These risk premiums are not directly comparable to those estimated over various historic periods as presented in Schedules 8 and 16. The utility risk premiums in the U.S. are not higher than the risk premiums on the market. While utility risk premiums were higher than market risk premiums in Canada over the longest period for

1 which Ms. McShane has utility data, it does not follow that Ms. McShane views  
2 utilities as riskier than the market. It is clear from her CAPM analysis that she  
3 does not. Actual returns do not always comport with their relative risk.  
4

5 d. Please see discussion in Appendix C, pages C-6 to C-9.  
6

7 e. Confirmed. As noted at page C-2 of Ms. McShane's testimony, all investor  
8 returns, including dividends, must come ultimately from earnings. The analysts'  
9 earnings growth forecast growth rates are, as indicated at page C-4, intended to  
10 represent the normalized expected growth rates in earnings over a business cycle.  
11 To Ms. McShane's knowledge, there are no consensus forecasts for long-term  
12 dividend growth rates. The earnings forecasts are routinely used as inputs for  
13 DCF estimates of the cost of equity.  
14

15 f. It is not confirmed. There is no evidence that analysts build year-to-year  
16 variability in earnings into their long-term growth forecasts. The earnings growth  
17 rates are intended to be a smoothed average over a business cycle, which would  
18 be in the nature of a geometric average.

**Underlying data for Table 26**

	Canadian Utilities Index Returns	Canadian Bond Total Return	Canadian Bond Income Return	S&P/Moody's Electric Index Return	S&P/Moody's Gas Distribution Index Return	US Bond Total Return	US Bond Income Return
1947				-12.17%	-1.51%	-2.62%	2.13%
1948				1.47%	8.65%	3.40%	2.40%
1949				24.49%	31.85%	6.45%	2.25%
1950				5.27%	0.43%	0.06%	2.12%
1951				17.25%	20.65%	-3.93%	2.38%
1952				19.66%	11.13%	1.16%	2.66%
1953				9.19%	3.34%	3.64%	2.84%
1954				23.46%	27.19%	7.19%	2.79%
1955				12.33%	9.80%	-1.29%	2.75%
1956	27.42%	-3.63%	3.57%	2.83%	12.26%	-5.59%	2.99%
1957	3.97%	5.89%	4.14%	10.29%	0.96%	7.46%	3.44%
1958	24.85%	-5.69%	4.05%	38.35%	38.98%	-6.09%	3.27%
1959	14.42%	-4.43%	5.01%	4.77%	1.68%	-2.26%	4.01%
1960	27.23%	7.10%	5.21%	21.84%	20.26%	13.78%	4.26%
1961	11.11%	9.78%	5.07%	28.89%	33.30%	0.97%	3.83%
1962	-16.88%	3.05%	5.10%	1.70%	-4.46%	6.89%	4.00%
1963	10.79%	4.26%	5.08%	10.29%	10.08%	1.21%	3.89%
1964	4.72%	6.97%	5.19%	15.36%	11.71%	3.51%	4.15%
1965	35.36%	0.96%	5.17%	2.99%	-0.50%	0.71%	4.19%
1966	-14.67%	1.55%	5.66%	-4.34%	-12.81%	3.65%	4.49%
1967	16.38%	-2.20%	5.86%	-2.67%	9.55%	-9.18%	4.59%
1968	19.57%	-0.80%	6.69%	8.66%	17.48%	-0.26%	5.50%
1969	-14.65%	-2.01%	7.49%	-13.42%	-16.05%	-5.07%	5.95%
1970	19.91%	21.98%	8.02%	12.59%	30.66%	12.11%	6.74%
1971	8.46%	11.55%	6.96%	2.26%	1.66%	13.23%	6.32%
1972	6.41%	1.11%	7.20%	4.19%	13.62%	5.69%	5.87%
1973	-12.52%	1.71%	7.52%	-18.71%	-17.76%	-1.11%	6.51%
1974	-3.68%	-1.69%	8.82%	-25.36%	1.51%	4.35%	7.27%
1975	21.81%	2.82%	8.94%	50.39%	23.58%	9.20%	7.99%
1976	30.90%	19.02%	9.24%	23.53%	49.57%	16.75%	7.89%
1977	19.56%	5.97%	8.68%	9.21%	9.80%	-0.69%	7.14%
1978	16.19%	1.29%	9.22%	-3.78%	-2.70%	-1.18%	7.90%
1979	29.02%	-2.62%	10.09%	0.51%	36.31%	-1.23%	8.86%
1980	21.85%	2.06%	12.44%	6.86%	31.39%	-3.95%	9.97%
1981	-7.91%	-3.02%	15.03%	20.45%	-9.66%	1.86%	11.55%
1982	38.49%	42.98%	14.61%	35.59%	-1.92%	40.36%	13.50%
1983	6.09%	9.60%	11.81%	13.36%	33.52%	0.65%	10.38%
1984	19.06%	15.09%	12.77%	24.72%	17.17%	15.48%	11.74%
1985	23.61%	25.26%	11.15%	25.34%	18.96%	30.97%	11.25%
1986	7.50%	17.54%	9.62%	28.06%	26.41%	24.53%	8.98%
1987	5.42%	0.45%	9.83%	-7.31%	-9.10%	-2.71%	7.92%
1988	11.20%	10.45%	10.15%	17.22%	20.55%	9.67%	8.97%
1989	2.80%	16.29%	9.96%	33.26%	43.87%	18.11%	8.81%
1990	4.60%	3.34%	10.81%	2.56%	-0.97%	6.18%	8.19%
1991	1.90%	24.43%	9.87%	30.17%	21.24%	19.30%	8.22%
1992	6.60%	13.07%	8.80%	5.90%	17.86%	8.05%	7.26%
1993	21.60%	22.88%	7.97%	12.59%	16.36%	18.24%	7.17%
1994	6.90%	-10.46%	8.44%	-13.06%	-13.05%	-7.77%	6.59%
1995	3.30%	26.28%	8.45%	31.09%	29.60%	31.67%	7.60%

	<b>Canadian Utilities Index Returns</b>	<b>Canadian Bond Total Return</b>	<b>Canadian Bond Income Return</b>	<b>S&amp;P/Moody's Electric Index Return</b>	<b>S&amp;P/Moody's Gas Distribution Index Return</b>	<b>US Bond Total Return</b>	<b>US Bond Income Return</b>
1996	24.10%	14.29%	7.55%	-0.16%	12.42%	-0.93%	6.18%
1997	37.10%	17.45%	6.53%	26.34%	20.26%	15.85%	6.64%
1998	3.40%	14.13%	5.51%	23.34%	-2.87%	13.06%	5.83%
1999	-27.20%	-7.15%	5.59%	-17.12%	-1.06%	-8.96%	5.57%
2000	50.20%	13.64%	5.95%	59.30%	25.97%	21.48%	6.50%
2001	10.80%	3.92%	5.78%	-5.24%	4.90%	3.70%	5.53%
2002	6.30%	10.09%	5.69%	-10.86%	5.91%	17.84%	5.59%
2003	24.90%	8.06%	5.28%	17.77%	18.45%	1.45%	4.80%
2004	9.42%	8.46%	5.08%	15.80%	13.93%	8.51%	5.02%
2005	38.29%	15.05%	4.41%	7.53%	-2.09%	7.81%	4.69%
2006	7.01%	3.22%	4.29%	19.04%	23.25%	1.19%	4.68%
2007	11.89%	3.30%	4.32%	13.21%	1.89%	9.88%	4.86%
2008	-20.46%	13.65%	4.09%	-26.38%	5.23%	25.87%	4.45%
2009	19.00%	-4.26%	3.83%	13.36%	0.32%	-14.90%	3.47%
2010	18.39%	11.45%	3.66%	7.62%	8.43%	10.14%	4.25%
2011	6.47%	18.79%	3.28%	25.96%	17.77%	28.23%	3.81%