Consumers Council of Canada and the Vulnerable Energy Consumers Coalition (CCC) and (VECC) INTERROGATORY #17 List 1

Interrogatory

Ref: B1/T3/S1 p. 44

Issue 4.0
Issue: Cost of Capital/Capital Structure

Topic: Market Risks

Request:

Ms. McShane uses the standard deviation of the utility sub index as a rerisk measure.

a) Please estimate the correlation coefficient between the utility sub index and the TSE300/Composite index for ten year periods with annual rates of return since 1956.

b) In MS. McShane's judgement would holding the utility sub index separately as a diversified portfolio violate modern portfolio theory based on the correlation estimates in a).

c) Can Ms. McShane provide any supporting evidence to justify the implication that investors might just hold utility shares and no other investments.

Response

a) The requested data are attached as Attachment A.

b) Ms. McShane was not suggesting that investors would hold the utility sub-index separately as a diversified portfolio. The point was that investors do not only look at "beta" risk nor do they make investment decisions solely on the basis of betas. The standard deviation of the share price changes of the utility sector relative to the median of the standard deviations of all the major sectors of the composite index is a measure of the relative total investment risk of utilities.

c) No, the analysis was not intended to imply that they do.

	Utilities Index Returns	Canadian Stock Returns
1956	27.4%	13.2%
1957	4.0%	-20.6%
1958	24.8%	31.3%
1959	14.4%	4.6%
1960	27.2%	1.8%
1961	11.1%	32.8%
1962	-16.9%	-7.1%
1963	10.8%	15.6%
1964	4.7%	25.4%
1965	35.4%	6.7%
1966	-14.7%	-7.1%
1967	16.4%	18.1%
1968	19.6%	22.5%
1969	-14.6%	-0.8%
1970	19.9%	-3.6%
1971	8.5%	8.0%
1972	6.4%	27.4%
1973	-12.5%	0.3%
1974	-3.7%	-25.9%
1975	21.8%	18.5%
1976	30.9%	11.0%
1977	19.6%	10.7%
1978	16.2%	29.7%
1979	29.0%	44.8%
1980	21.9%	30.1%
1981	-7.9%	-10.3%
1982	38.5%	5.5%
1983	6.1%	35.5%
1984	19.1%	-2.4%
1985	23.6%	25.1%
1986	7.5%	9.0%
1987	5.4%	5.9%
1988	11.2%	11.1%
1989	2.8%	21.4%
1990	4.6%	-14.8%
1991	1.9%	12.0%
1992	6.6%	-1.4%
1993	21.6%	32.6%
1994	6.9%	-0.2%
1995	3.3%	14.5%
1996	24.1%	28.4%
1997	37.1%	15.0%
1998	3.4%	-1.6%
1999	-27.2%	31.7%
2000	50.2%	7.4%
2001	10.8%	-12.6%
2002	6.3%	-12.4%
2003	24.9%	26.7%
2004	9.42%	14.48%
2005	38.29%	24.13%
2006	7.0%	17.4%
Starting Year	**Ending Year**	**Correlation Coefficient**
1956	1965	0.30
1957	1966	0.40
1958	1967	0.41
1959	1968	0.36
1960	1969	0.46
1961	1970	0.46
1962	1971	0.50
1963	1972	0.30
1964	1973	0.37
1965	1974	0.44
1966	1975	0.57
1967	1976	0.49
1968	1977	0.47
1969	1978	0.45
1970	1979	0.55
1971	1980	0.64
1972	1981	0.70
1973	1982	0.62
1974	1983	0.49
1975	1984	0.23

	Utilities Index Returns	Canadian Stock Returns
1976	1985	0.24
1977	1986	0.33
1978	1987	0.38
1979	1988	0.40
1980	1989	0.19
1981	1990	0.17
1982	1991	-0.06
1983	1992	0.10
1984	1993	0.44
1985	1994	0.63
1986	1995	0.49
1987	1996	0.62
1988	1997	0.46
1989	1998	0.49
1990	1999	0.04
1991	2000	-0.10
1992	2001	-0.07
1993	2002	-0.04
1994	2003	-0.04
1995	2004	-0.07
1996	2005	0.03
1997	2006	-0.02