DEMANDE DE RENSEIGNEMENTS N° 1 DE GAZIFÈRE : DEMANDE RELATIVE AU RENOUVELLEMENT DU MÉCANISME INCITATIF, À LA FERMETURE RÉGLEMENTAIRE DES LIVRES POUR LA PÉRIODE DU 1ER JANVIER 2009 AU 31 DÉCEMBRE 2009, À L'APPROBATION DU PLAN D'APPROVISIONNEMENT POUR L'EXERCICE 2011 ET À LA MODIFICATION DES TARIFS DE GAZIFÈRE INC. À COMPTER DU 1ER JANVIER 2011

PHASE 2 - TAUX DE RENDEMENT

Question 1.0

Preamble: At page 13, Dr. Booth states:

> In total the TSX dropped almost ⅓ over the course of the NEB decision, which may have coloured the NEB's decision to adopt an after tax weighted average cost of capital approach (ATWACC).

Request: What in Dr. Booth's view would be the connection between the state of the capital markets and the decision to adopt the ATWACC model? Does the ATWACC model address the state of the capital markets in a way that the traditional ROE/capital structure approach does not?

The ATWACC is a weighted average of both the debt and equity costs at current market value costs and weights. As such it more directly reflects conditions in the capital market than taking a current equity cost and combining that with an embedded debt cost.

Question 2.0

Preamble: At page 13, Dr. Booth indicates that the NEB explained that its ATWACC award was equivalent to a 9.7% ROE on a 40% common equity ratio, where both represented a significant increase and states that "a prime driver in allowing TQM a higher ROE and common equity ratio was increased business risk, which means that drawing comparisons for a benchmark utility is difficult."

Request:

a. Would Dr. Booth confirm that TQM's allowed common equity ratio previously was 30% and its allowed ROE was equal to the NEB's multi-pipeline formula ROE, which was 8.46% and 8.72% in 2007 and 2008 respectively?

b. Does Dr. Booth have an opinion on how much of the increase in the return would be justifiable based on an increase in business risk alone?

c. Given the allowed capital structures of other gas pipelines regulated by the NEB and the multi-pipeline ROEs, is it Dr. Booth's view that the NEB now regards TQM as of significantly higher business risk than, for example, TCPL Mainline or Foothills? Please explain.

---

a) Confirmed.

b) Dr. Booth tesftified that there was no increase in business risk for TQM, so he would not regard any of it to be justified. Dr. Booth's summary on TQM was as follows :

- I would place the business risk of TQM as lower than that of the other natural gas pipelines regulated by the Board. This is because unlike the TransCanada Mainline, Westcoast, Foothills and the BC System, TQM is increasingly accessing natural gas supplies through the Dawn hub rather than Western Canada. As a result it does not face the long run stranded asset risk to the same degree as these other pipelines. The East Hereford expansion to PNGTS also offers TQM flexibility in reaching markets that was lacking when the NEB last looked at its business risk in 1994.

c) Dr. Booth can not speak for the NEB. However, from the summary above it is clear that Dr. Booth's main focus was on the development of the Dawn hub and the fact that TQM was increasingly sourcing natural gas from Dawn instead of the WCSB. As a result it was Dr. Booth's judgment that TQM could "separate" from the TCPL Mainline at some future date. Dr. Booth's reading of the NEB decision was that it felt that TQM was fully integrated into the Mainline and shared the same supply problems (and load problems) faced by the Mainline and all the other export pipelines. This is consistent with the NEB decision allowing TQM's rates to be included as "transportation by others" in the Mainline's rates and the fact that TQM is essentially a shell company with most services outsourced and few emplyees.

<u>Question 3.0</u>

Preamble: At page 15, Dr. Booth states:

The BCUC adjusts for changes in risk in both the common equity ratio and allowed return. In TGI's case this increased risk was a reflection of increasing competition from electricity, increased land claims and the possible implications of the BC government's carbon tax policy.

Request:

a. Does Dr. Booth conclude that the BCUC increased TGI's ROE due to increased risk?

b. If yes, please provide evidence from the BCUC decision that this was the case.

c. If the response to part a is yes, and if the incremental equity risk premium of FortisBC relative to TGI remained unchanged, would this imply that the BCUC also considered that FortisBC's risk had increased?

---

a) No. Dr. Booth simply notes that the BCUC felt TGI's risk had increased and it adjusts both the capital structure and ROE for changes in risk, rather than focusing only on capital structure like the NEB and AUC have traditionally done. As a result it is difficult to ascribe the changes to one factor, since the BCUC changed both the ROE and common equity ratio.

b) N/A

c) N/A

<u>Question 4.0</u>

Preamble: At page 31, Dr. Booth provides a graph of default spreads.

Request:

a. Please explain what Dr. Booth means by default spread in the context of this graph.

b. Please provide the source of the data provided in the graph and describe the specific indices used to measure the default spreads.

c. Please provide the yields (monthly, if monthly, or weekly if weekly) for each of the indices that were used to calculate the default spreads.

---

a) The default spread is a common phrase given to the yield spread between a default risky bond yield and an equivalent maturity Canada bond. In this case it is the spread between the yields on AA, A and BBB rated corporate debt and long Canada bonds.

b) Provided in response to Regie information request 1.1
c) Provided in response to Regie information request 1.1

Question 5.0

Preamble: At page 31, lines 13-14, Dr. Booth states: "This 'flight to quality' is a regular part of the business cycle."

Request:

a. During a 'flight to quality' do the yields on long-term government bonds typically decrease? Please explain.

b. When there is a 'flight to quality', does this typically mean that the costs of riskier forms of capital increase? Please explain.

c. If the responses to parts a and b are yes, and the allowed return on equity tracks the yield on long-term government bonds, please explain if, over a business cycle, the allowed return would rise when the cost of equity falls and falls when the cost of equity increases.

---

a) Typically yields on all highly liquid securities decrease in a flight to quality, this will include some long term Canada bonds, particularly the benchmark bonds. Some other Government bonds will not see an equivalent decrease in yields.
b) During a flight to quality the cost of debt instruments certainly increases since they include both a liquidity and a default related spread. The cost of other instruments not affected by the liquidity spread, like common equities, is not affected to the same degree if at all.
c) Over a full business cycle the impact of a flight to quality should average out to zero unless there is a major change in the structure of the bond market. At different points in time within the business cycle the cost of equity may be marginally over or under stated by not taking into account these yield spread changes as Dr. Booth explains in Section IV on a better ROE formula. However, to the extent that the ROEs generated by the ROE formula are generous Dr. Booth does not believe that they have ever given unfairly low ROEs even during the worst financial crisis for over 70 years.

Question 6.0

Preamble: At page 34, Dr. Booth provides a graph of yields since January 2008.

Request: What proportion of the A index included on the graph is represented by utility debt issues?

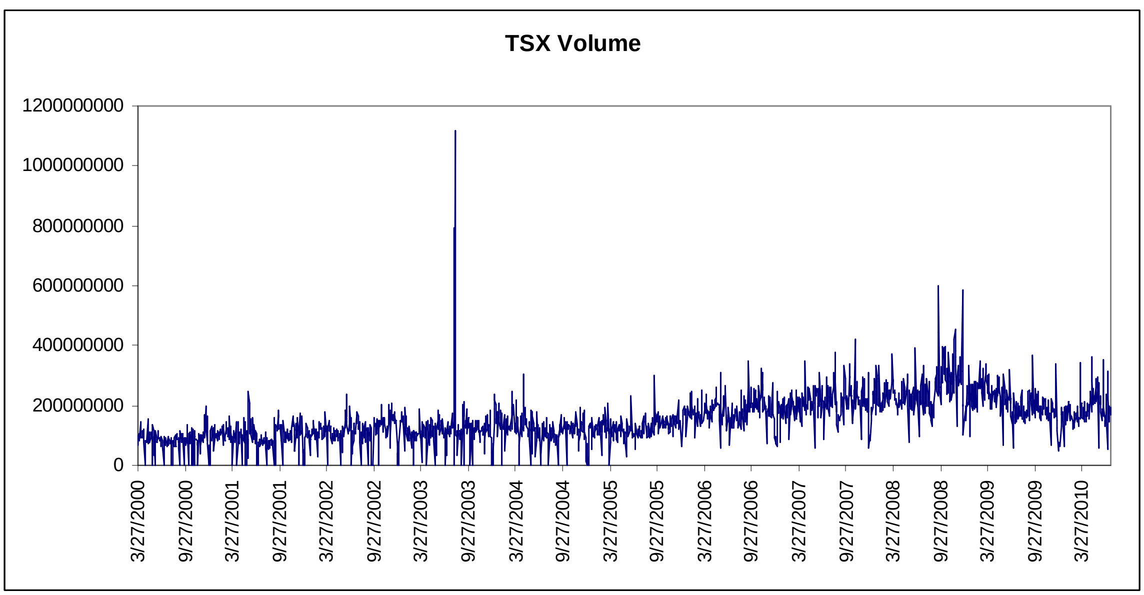
This information is not available to Dr. Booth. However, enclosed is a PC Bond discussion of the bond market.

Question 7.0

Preamble: In footnote 18 on page 34, Dr. Booth states: "Note that liquidity in the equity market usually increases during crises as there is more disagreement among investors."

Request: Please explain why liquidity increases when there is more disagreement among investors.

Investors trade either because of shocks to their wealth that create cash demands or because they think securities are mispriced. The more uncertainty in the economy the greater the trading since investors disagree on fundamentals and use a variety of decision rules to trade, such as technical rules, fundamental rules, simple valuation ratios such as PEs or macro economic factors such as GDP growth rates etc. The following is a graph of the volume on the TSX Composite since 2000. It clearly shows that there was no reduction in liquidity during eh financial crisis.



Question 8.0

Preamble: At page 45, lines 21-25, and page 46, lines 1-4, Dr. Booth uses the ratio of standard deviations as a measure of risk.

Request: Would Dr. Booth please explain if it is appropriate to use ratios of standard deviations of both accounting and market returns as measures of risk and if not, why not?

Dr. Booth does not use ratios of standard deviations of market rates of return. For market rates of return standard deviations are only a relevant metric for *portfolios* of securities.

Accounting rates of return per se are not a relevant metric for risk assessment for investors. They are an assessment of the business risk of the firm which can be used as an input in the overall risk assessment.

Question 9.0

Preamble: At page 52, Dr. Booth states:

> It has been known for some time that the CAPM, when used with Treasury Bill yields as the risk-free rate, tends to give low estimates for certain types of securities, which is partly why for regulatory reasons it is normally used with the long Canada bond yield.

Request:

a. Please explain to which types of securities Dr. Booth is referring.

b. Please provide all evidence of which Dr. Booth is aware that demonstrates that the use of long-term government bonds fully adjusts for the low estimates cited in the preamble.

c. Similarly, please provide all evidence of which Dr. Booth is aware that demonstrates that the use of long-term government bonds does not fully adjust for the low estimates.

---

a) The rates of return on low risk securities (beta coefficient less than 1.0) were underestimated in the classic tests of the CAPM where the unadjusted, contemporaneous, beta coefficient was used with the 30 day return on the 90 day Treasury bill.

b) Such evidence is impossible to provide since the holding period on a 30 year bond is by definition 30 years. We would have to have a sample of non-overlapping 30 year periods to test such a proposition accurately. However, at present the yield on the 30 year bond is about 3.50% higher than that on the 91 day Treasury bill yield and in Dr. Booth's judgment this is highly unlikely to be less than any empirical bias, particularly when combined with a forward looking rather than contemporaneous beta estimate.

c) See a) and b) above.

Question 10.0

Preamble: At page 52, Dr. Booth states:

> However, this practice caused many of the problems in regulatory awards in the mid 1990s when the long Canada bond yield was so high due to inflation concerns, government deficits and the large risk premium embedded in government bond yields, which did not have a counterpart in the equity market.

Request:

a. Please explain what Dr. Booth means by "problems in regulatory awards".

b. Please specify to what regulatory awards Dr. Booth is referring and over what period of time did the problems referenced persist.

---

a) Mr. Peter Thomson's letter to the Ontario Energy Board of April 16, 2009 on behalf of the Canadian Manufacturers and Exporters states

> In the following year, in Reasons for Decision in E.B.R.O. 381 dated January 27, 1982, the Board determined Costs of Capital for EGD's predecessor for the test period ending September 30, 1982, were as follows:
>
> | | | |
> |---|---|---|
> | (i) | Short Term Debt | 18.25% |
> | (ii) | Long Term Debt | 18.5% |
> | (iii) | ROE | 16.25% |
>
> The negative spread between the then prevailing Long Term Debt Rate of 18.5% and the Board determined ROE of 16.25% was <u>negative</u> 225 basis points.[6]

At that time inflationary and monetary pressures had pushed up the long Canada bond yields to such heights that the OEB allowed a negative risk premium for Consumers Gas' ROE over its borrowing cost. What this means is that the equity cost was squeezed to zero due to the problems in the bond market. These problems persisted until the capital market became convinced that the Bank of Canada would maintain inflation within its 1.0-3.0% operating band. However, allowed ROEs dropped more slowly than the change in capital market conditions and in Dr. Booth's judgment utilities benefitted form this regulatory lag that was locked in as a result of the 75% adjustment for forecast LTC yields.

b) Dr. Booth was not referring to any specific awards but general regulatory lag.

<u>Question 11.0</u>

Preamble: At page 53, lines 10-11, Dr. Booth states: "Overall, I judge utility stocks to have about half the exposure to the equity market as the average stock and half the exposure to the bond market as the long Canada bond."

Request: In light of the above statement that utility stocks have approximately had half the exposure to the bond market as the long Canada bond, please explain how this is consistent with the recommendation that there be a 75% adjustment to changes in the long Canada bond yield in the ROE formula.

The 75% adjustment is the total adjustment of the ROE to the forecast LTC yield. In addition there is the impact of interest rates through the market return.

<u>Question 12.0</u>

Preamble: At page 54 Dr. Booth states, referring to recent Canadian decisions discussing utility betas: "Of these only that of the BCUC appears to be outside of a reasonable range and probably reflected their view that the business risk of Terasen Gas Inc had increased."

Request: Please provide evidence from that decision which supports the view that the decision regarding beta reflects the view that the business risk of Terasen Gas had increased.

See Dr. Booth answer to Gazifere information request #3 above.

<u>Question 13.0</u>

Preamble: At page 63, lines 7 to 20, Dr. Booth states "if the adjustment coefficient is set at 0.5, the overall required return on the market is independent of the LTC yield, which renders the whole notion of a risk premium over the LTC yield moot."

Request: Please confirm that the conclusion drawn is a function of the assumption that the relevant beta is 0.50. If this cannot be confirmed, please explain why not.

That is correct, but it results from plausible numbers and reasonable predictions.

In the example if the utility, consistent with recent experience, really had a beta of say 0.25 then with a 1.0% drop in the LTC yield an adjustment of 0.50 implies a 0.50% increase in the utility risk premium. In turn this then implies a 2.0% increase in the market risk premium, that is, 0.50/0.25. In this case the 0.50 adjustment implies that the market risk premium increases when the long Canada bond yield falls, which is what Ms. McShane seems to arguing for. However, it relies on a beta coefficient less than 0.50 and much less than Ms. McShane is currently using.

In contrast a beta of 0.75 implies a change in the market risk premium of 0.50/0.75 or 66.7 bps so that the market risk premium increases by 66.7% of the drop in LTC yields. In this case the overall market return drops with LTC bond yields. However, whereas Ms. McShane uses a higher beta coefficient than 0.50 she does not seem to accept the result that the market return drops as LTC yields drop since this would imply that the formula is not broken.

The 0.50 ROE adjustment to changes in the forecast LTC yield produces results that seem to be internally inconsistent with other areas of Ms. McShane's testimony.

Question 14.0

Preamble: At page 66, footnote 39, Dr. Booth states: I can't find support in the Scotia Capital A yield series to support such low spreads.

Request: Please provide the data for the Scotia Capital A yield series to which Dr. Booth refers.

This data is provided in Booth answer to Regie IR 1.1.

However, Dr. Booth would note the average A spread for 1996 according to Scotia Capital was 57.6 bps, for 1997 it was 46 bps and for 1998 73 bps. As a result Dr. Booth has difficulty justifying Ms. McShane's value of 27 bps for 1997.These estimates are for the 12 month end yield values from the Scotia Capital handbook for debt market indices. The data used by Dr. Booth is daily so the averaging is slightly different. The following page can be expanded by grabbing the handles.

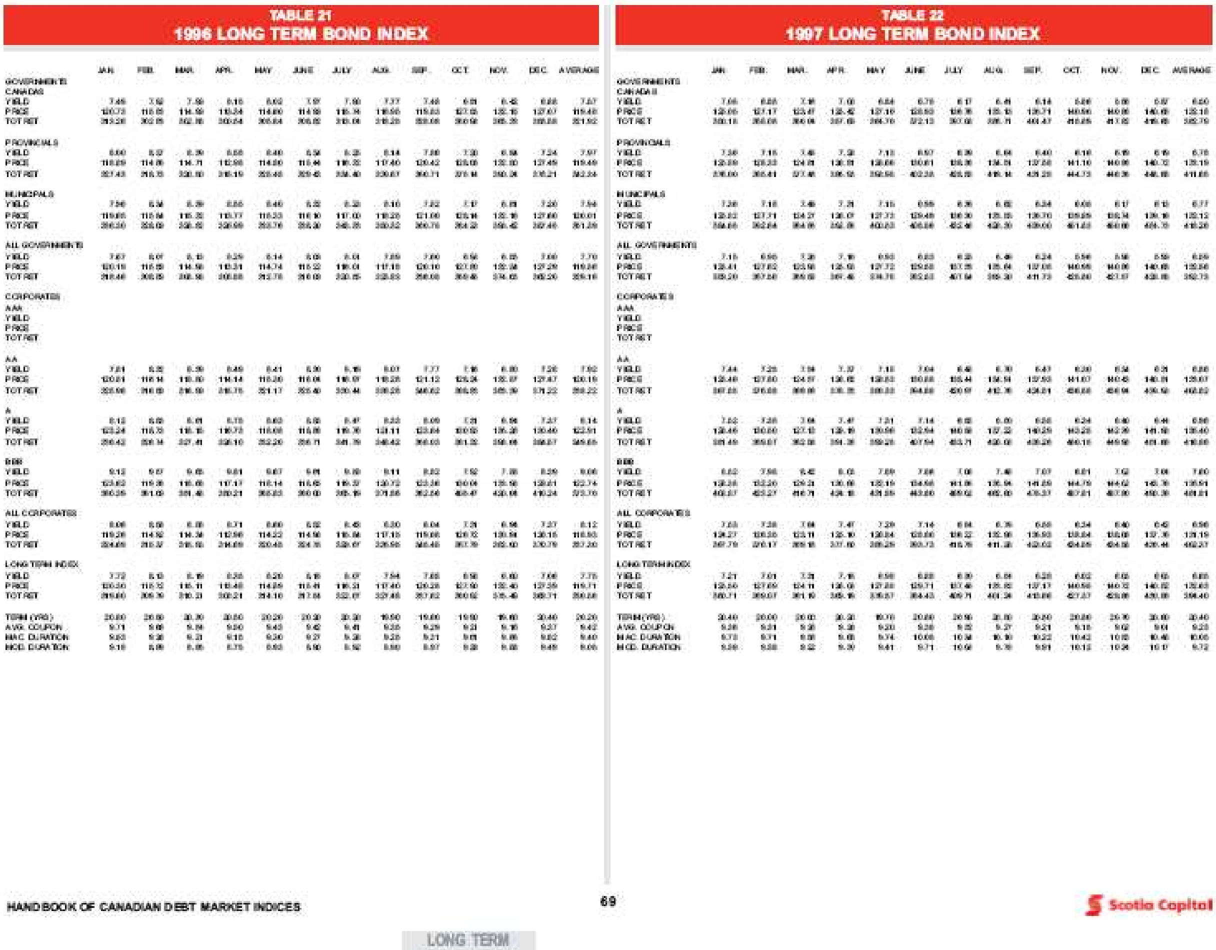


TABLE 21
1996 LONG TERM BOND INDEX

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	AVERAGE
GOVERNMENTS													
CANADAS													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PROVINCIALS													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MUNICIPALS													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ALL GOVERNMENTS													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CORPORATES													
AAA													
YIELD													
PRICE													
TOT RET													
AA													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
A													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BBB													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ALL CORPORATES													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LONG TERM INDEX													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TERM (YRS)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AVG. COUPON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAC. DURATION	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MOD. DURATION	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE 22
1997 LONG TERM BOND INDEX

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	AVERAGE
GOVERNMENTS													
CANADAS													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PROVINCIALS													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MUNICIPALS													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ALL GOVERNMENTS													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CORPORATES													
AAA													
YIELD													
PRICE													
TOT RET													
AA													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
A													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BBB													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ALL CORPORATES													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LONG TERM INDEX													
YIELD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PRICE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOT RET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TERM (YRS)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AVG. COUPON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAC. DURATION	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MOD. DURATION	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

HANDBOOK OF CANADIAN DEBT MARKET INDICES 69 Scotia Capital

LONG TERM BOND INDICES

Question 15.0

Preamble: At page 72, with respect to the histogram and lines 2-9 where Dr. Booth states: "First, many of the lower rated companies are also rated "excellent" in terms of business risk (even some with junk bond ratings) so this is not a main determinant of their bond rating."

Request:

a. Please define "lower rated."

b. How many lower rated companies have excellent business risk profiles?

a) Dr. Booth was not intending this to mean any particular classification, but lower rated can be taken as less than A-.
b) This was not provided by Ms. McShane in her answer, but she obviously has the data and can provide it as an undertaking if it is deemed important..

<u>Question 16.0</u>

Preamble: Appendix B, page 3, lines 25-28.

Request: Please provide a copy of the referenced paper "Report on Canadian Economic Statistics, 1924-2009", March 2010.

Copy attached as Final_2009_Tables_E.xls

<u>Question 17.0</u>

Preamble: In Appendix B, Schedule 8, Dr. Booth provides the result of a regression.

Request: Please provide all data necessary to replicate the regression results presented in Schedule 8.

Data provided as Booth answer to Gazifere information request 17.0

<u>Question 18.0</u>

Preamble: At page 34, Dr. Booth states, "However, what has to be emphasised is that current A spreads are now under 160 bps, while utility spreads at 130 bps are below corporate A spreads and back to where they were at this stage in the last slowdown and recovery in 2002"

Question: Please provide documentation for the corporate and utility spreads respectively.

Data provided in answer to Regie information request # 1.1. Note that A spreads have now crept up from 160 bps at the time of Dr. Booth's testimony to 170 bps as a result of the Euro problems