

**PUB (MPI)**

**PUB (MPI) 2-1**

**Reference: 1<sup>st</sup> Quarter Report, PF.1,  
PF.3, PUB/MPI 1-121**

- a) Please provide a breakdown of the first quarter claims experience by cover including separation of 2014/15 activity from run-off of prior years.
- b) With respect to the run-off of prior years provided in (a) above, please detail the portion attributable to changes in experience vs. the portion attributable to changes in valuation methodology vs. the portion attributable to changes in valuation assumptions, including commentary on the basis for this separation.
- c) Please advise as to whether the first quarter results were impacted by seasonality patterns in the claims experience.

**RESPONSE:**

- a) The table below presents the first quarter claims experience (i.e. as of May 31, 2014) for Basic by cover. Note, the first quarter published report is for the Corporation as a whole.

Cover	Actual Claims Incurred	Budgeted Claims Incurred	Variance
Accident Benefits	\$56,914,000	\$42,930,000	\$13,984,000
- Pre Mar 1, 1994	\$578,000	\$432,000	\$146,000
Bodily Injury	\$1,263,000	\$717,000	\$546,000
- Pre Mar 1, 1994	(\$9,000)	\$0	(\$9,000)
Collision	\$87,402,000	\$78,202,000	\$9,200,000
Comprehensive	\$13,496,000	\$14,007,000	(\$511,000)
Property Damage	\$10,284,000	\$10,454,000	(\$170,000)
<b>Total</b>	<b>\$169,928,000</b>	<b>\$146,742,000</b>	<b>\$23,186,000</b>

The table below presents a more detailed breakdown for Accident Benefits. Note that the significant variance between actual and budget is mostly accounted for

by the variance in interest rate adjustment. Actual interest rate based on the Corporation's fixed income portfolio as at May 31, 2014 was 3.64% compared to forecasted interest rate of 3.76%.

Cover	Actual Claims Incurred	Budgeted Claims Incurred	Variance
Reported Claims	\$41,189,000	\$43,424,000	(\$2,235,000)
Interest Rate Adjustment	\$3,995,000	(\$12,426,000)	\$16,421,000
IBNR Adjustment	\$5,574,000	\$5,574,000	\$0
Unallocated Loss Adjustment Expense	\$6,741,000	\$6,871,000	(\$130,000)
All Other Adjustments	(\$585,000)	(\$513,000)	(\$72,000)
<b>Total</b>	<b>\$56,914,000</b>	<b>\$42,930,000</b>	<b>\$13,984,000</b>

The attached table presents the runoff as of April 30, 2014. The valuation of policy liabilities performed as of April 30, 2014 (i.e. for the first quarter) is done only for Accident Benefits i.e. PIPP covers. As such, the Corporation is only able to provide the runoff for these covers.

b) The runoff as of April 30, 2014 can be broken down as follows:

Change	Favourable (Unfavourable) Runoff
Experience	\$17,835,000
Valuation Methodology	\$0
Valuation Assumptions	\$669,000
Total	\$18,504,000

No change was made to the valuation methodology.

Changes made to the valuation assumptions which resulted in the favourable runoff of \$0.7 million are detailed in table below.

<b>Change</b>	<b>Reference in Actuarial Report</b>	<b>Favourable (Unfavourable) Runoff</b>
PIPP Enhancement: Changes to the expected total claimant count	Note 1	\$669,000
<b>Total Valuation Assumptions</b>		<b>\$669,000</b>
<p>Note 1: The count of claimants who could potentially be entitled to these benefits is gradually reduced as the experience matures. This is a normal transition based on the current methodology.</p>		

The favourable runoff of \$17.8 million attributable to changes in the experience was determined by undoing all changes made to the valuation methodology and valuation assumptions. Refer to the attached table which presents the runoff for changes in the experience as of April 30, 2014.

The favourable runoff observed is mainly because current year unpaid is not yet completely indexed to current benefit levels. Reserves on open claims are reviewed annually, and indexed/updated when reviewed. This annual review of claims occurs gradually throughout the year.

- c) Refer to page 13 of the 1<sup>st</sup> Quarter Report. Additionally, the budgeted figures in the response to (a) above includes consideration for the distribution of claims incurred by month.

**Net Runoff for Fiscal Year 2014/15 (\$'000) [a]  
As at April 30, 2014  
By Coverage and Insurance Year**

Ins Yr Insurance Year	Acc Ben - Weekly Indemnity	Acc Ben - Other (Indexed)	Acc Ben - Other (Non-Ind)	PIPP Enhance- ment [b]	<b>TOTAL BASIC</b>
1997	246	522	3	-4	<b>767</b>
1998	256	347	0	-2	<b>601</b>
1999	565	353	17	-3	<b>931</b>
2000	124	462	-4	-9	<b>573</b>
2001	403	452	-40	-7	<b>808</b>
2002	781	244	-7	-28	<b>990</b>
2003	700	371	-5	-2	<b>1,064</b>
2004	1,318	326	0	-36	<b>1,608</b>
2005	-184	464	19	-7	<b>292</b>
2006	-427	159	-28	-13	<b>-309</b>
2007	642	594	26	-33	<b>1,228</b>
2008	-247	721	143	64	<b>682</b>
2009	270	1,205	-35	140	<b>1,580</b>
2010	833	573	30	-5	<b>1,431</b>
2011	976	834	-235	679	<b>2,253</b>
2012	897	1,627	-25	120	<b>2,620</b>
2013	1,436	-544	330	130	<b>1,353</b>
<b>TOTAL</b>	<b>8,589</b>	<b>8,711</b>	<b>189</b>	<b>982</b>	<b>18,471</b>

Net Runoff - Quality of Life [c]: 33

**Total Basic:** 18,504

[a] Positive figures indicate favourable runoff

[b] Excludes Quality of Life Enhancements

[c] The figures per the April 2014 valuation were not broken down by insurance year



**Net Runoff from Changes in Experience Only**  
**for Fiscal Year 2014/15 (\$'000) [a]**  
**As at April 30, 2014**  
**By Coverage and Insurance Year**

Ins Yr Insurance Year	Acc Ben - Weekly Indemnity	Acc Ben - Other (Indexed)	Acc Ben - Other (Non-Ind)	PIPP Enhance- ment [b]	<b>TOTAL BASIC</b>
1996	246	522	3	-4	<b>767</b>
1997	256	347	0	-2	<b>601</b>
1998	565	353	17	-3	<b>931</b>
1999	124	462	-4	-9	<b>573</b>
2000	403	452	-40	-7	<b>808</b>
2001	781	244	-7	-28	<b>990</b>
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2003	1,318	326	0	-36	<b>1,608</b>
2004	-184	464	19	-7	<b>292</b>
2005	-427	159	-28	-13	<b>-309</b>
2006	642	594	26	-33	<b>1,228</b>
2007	-247	721	143	64	<b>682</b>
2008	270	1,205	-35	140	<b>1,580</b>
2009	833	573	30	-5	<b>1,431</b>
2010	976	834	-235	220	<b>1,794</b>
2011	897	1,627	-25	120	<b>2,620</b>
2012	1,436	-544	330	-81	<b>1,142</b>
<b>TOTAL</b>	<b>8,589</b>	<b>8,711</b>	<b>189</b>	<b>312</b>	<b>17,802</b>

Net Runoff - Quality of Life [c]: 33  
**Total Basic:** 17,835

- [a] Positive figures indicate favourable runoff  
[b] Excludes Quality of Life Enhancements  
[c] The figures per the April 2014 valuation were not broken down by insurance year



**PUB (MPI) 2-2****Reference: PUB/MPI 1-1**

- a) Please provide the impact on Basic retained earnings of changing the weighted call centre contact ratio on the restatement of the financial results.
- b) Please provide all working papers and supporting calculations which underpin the decision to change the weighted call center contact ratio on a retrospective basis.

**RESPONSE:**

- a) The impact on Basic retained earnings by changing the weighted call centre contact ratio is a decrease of \$94,000.
- b) The methodology to determine the weighted call center contact ratio was based on the phone menu coding (the option the user enters – also known as the routing code) which is not optimal since the main purpose of the routing code is to optimize call handling and not to record call types and there are risks of customers making incorrect menu choices. Weighted call centre contact ratio was re-calculated using call wrap up codes (which is the code the operator enters into the system after the call is complete based on the main subject matter of the discussion) which is coding that is done for every call. It was determined the call wrap up code was a better indication of the weighted call centre contact ratio.

**WCCCR RESULTS (example – non-insurance line of business)**

<b>Fiscal Year</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Current Reporting	8.10%	7.85%	8.62%	11.48%
Call Wrap Up Code Reporting	6.03%	8.57%	8.13%	<b>6.78%</b>

The wrap up call code figures for 2013 have statistical data support, the prior years do not. A four year rolling average is calculated using the old methodology of calculating weighted call centre contact ratio and the current year (2013) wrap up code reporting. As we move forward we will calculate the four year average using the old methodology for those years where the new methodology does not exist. Based on this methodology our four year rolling average for 2013 is 7.84% calculated as follows:

WCCCR RESULTS (example – non-insurance line of business)

<b>Fiscal Year</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Current Reporting	8.10%	7.85%	8.62%	
Call Wrap Up Code Reporting				<b>6.78%</b>

Average = 7.84%



**PUB (MPI) 2-3**

**Reference: PUB/MPI 1-4 (a)  
through (f)**

The intention was for the restated PF.1 and PF.2 exhibits to be prepared also “separating out amounts relating to the premium deficiency reserves”, which would itemize such amounts in the Statements of Net Income (Loss) from Operations and the Balance Sheets. Please correct and re-file.

**RESPONSE:**

As explained in PUB (MPI) 1-107, the base scenario does not include either premium deficiency reserves or deferral of policy acquisition expenses. As a result, there are no amounts to separate out in respect of premium deficiency reserves.

**PUB (MPI) 2-4****Reference: PUB/MPI 1-6 (a)**

Using the table in R.1, Page 5 and the information shown for the year ended February 2016:

- a) The calculated "Impact of Rate Change" ( $\$20,037 = 0.024 \times [\$849,098 - \$14,234]$ ) only captures the impact of the rate change for the vehicles already in the fleet at the start of the fiscal year, and excludes this impact for the vehicles newly entering the fleet in the 2016 fiscal year, each of which will also pay a premium at the increased rate level. Why is this appropriate for purposes of estimating the "Total Premiums Written Before Rebates" for the 2016 fiscal year?
- b) The calculated "Impact of Change in RSR Rebuilding Fee Adjustments" ( $\$8,549 = 0.010 \times [\$849,098 + \$20,037 - \$14,234]$ ) only captures the impact of the RSR Rebuilding Fee for the vehicles already in the fleet at the start of the fiscal year, and excludes this impact for the vehicles newly entering the fleet in the 2016 fiscal year, each of which will also pay an RSR Rebuilding Fee. Why is this appropriate for purposes of estimating the "Total Premiums Written Before Rebates" for the 2016 fiscal year?

**RESPONSE:**

- a) & b) The actual written premium from the previous year reflects the average written vehicle units from that period. The previous year's written premium is then increased by the assumed volume factor (as well as the upgrade factor, rate changes, and RSR rebuilding fees) which results in an updated estimate for the current year's average number of written vehicle units. The calculation accurately reflects the average number of vehicles in the fleet in the current year.



**PUB (MPI) 2-5**

**Reference: PUB/MPI 1-6 (g)**

- a) Please provide an accounting of the introduction of and changes to service fees in the last ten years.
- b) Please advise of the criteria applied to determine when an associated work load change is significant enough to warrant a review of a service fee level.
- c) Please advise of how changes in technology introduced by MPI may impact current service fee levels.

**RESPONSE:**

- a) During the past five years the following service fees have been added:
  - Specialty plate fees
  - Ignition Interlock fees

In 2010/11, Merchant fees were removed from service fees and included in expenses due to the adoption of IFRS accounting rules. No other changes have been made in respect of fees applicable to Basic.

- b) There are a number of different inputs to service fees. Some service fees are based on amounts the Corporation pays to brokers to carry out various administrative transactions or related costs to produce physical items such as stickers and permits. Similarly, there is a pass through of administrative expenses the Corporation incurs to provide certain services, such as bank fees on dishonoured cheques. Financing interest is predicated on the prime rate and a rate spread. The Corporation periodically monitors the cost inputs related to the provision of services and will propose adjustments to the PUB relating to service fee levels as appropriate in the circumstances.
- c) Changes in technology could potentially affect service fees in a number of ways. New technology can in some cases reduce the cost of providing services and this

might result in reduced fee levels. Technology could also allow the Corporation to provide new services, which would result in new service fee types.

**PUB (MPI) 2-6**

**Reference: PUB/MPI 1-7**

Please explain what is meant by "High Availability" and confirm when IBM will be considered fully functional for classification as normal operations.

**RESPONSE:**

High availability is a system design approach and associated service implementation that ensures a prearranged level of operational performance will be met during a measurement period.

As currently forecasted, when this last piece of high availability capability is completed by March, 2016, the ITO ongoing costs related to high availability will be transferred into normal operations.



**PUB (MPI) 2-7**

**Reference: PUB/MPI 1-9**

Please provide a history, since the inception of the Corporation, of changes to the Basic deductible.

**RESPONSE:**

Basic deductible is established by government in the Automobile Insurance Coverage Regulation, M.R. 290/88 R. The link to the government website for a copy of the Regulation is:

<http://web2.gov.mb.ca/laws/regs/current/290.88r.pdf>

See section 51 of the Regulation and Schedule B for specific details.



**PUB (MPI) 2-8****Reference: PUB/MPI 1-16,  
PUB/MPI 1-28 (a)**

The forecasting of pension expense impacts the determination of investment income for rate-setting. In light of this, an understanding of how MPI determines its pension expense and how changes in discount rates impact that expense is useful. The change in discount rate last year from 4.20% to 3.90% resulted in a \$9 million loss that increased the pension expense. This year the discount rate has increased from 3.90% in 2012/13 to 4.30% in 2013/14, resulting in a \$15.3 million gain.

- a) Please provide a breakdown of the determination of pension expense for 2012/13 and for 2013/14 by the three components (change in reserve, actual benefit payments and the amortization of prior gains and losses) including how the \$15.3 million valuation gain in Appendix III of the valuation report is incorporated.
- b) Please explain what assumptions have been made for the discount rate and the pension expense for each of 2014/15, 2015/16 and 2016/17.

**RESPONSE:**

- a) Please refer to the Notes to the Universal Compulsory Audited Financial Statements (page 13) and Note 15 on Employee Future Benefits as found in Volume III AI.6 Part 1A.
- b) During the forecast period, the discount rate remained constant. Please refer to page 51 in Volume II Investment Income, section II.9.2.

**PUB (MPI) 2-9**

**Reference: PUB/MPI 1-13,  
PUB/MPI 1-19 Attachment**

- a) To attempt to understand the reasonableness of using the equity returns for the Canadian market as a proxy for forecast investment returns for US equities for rate setting purposes, please provide historical returns of the US Equities market on a similar basis of those provided for the Canadian returns.
- b) Please provide the S&P and Russell 3000 total returns for the last five years.
- c) Please indicate the impact on investment income if US equity returns from (a) were utilized rather than the Canadian equity returns.

**RESPONSE:**

- a) The distribution of the historical returns for U.S. equity based on the allocation to passive investments in the U.S. portfolio (80% Russell 1000 and 20% Russell 2000) is provided below.

**Russell 1000 (80%) + Russell  
2000 (20%) Total Returns from  
1978 to Present**

Percentile	20 Year Annualized
Min	7.1%
1%	7.6%
5%	8.1%
10%	8.5%
20%	8.8%
25%	9.0%
50%	11.4%
Max	17.6%

December 29, 1978 to January 31, 2014

As the table above shows, the 5<sup>th</sup> percentile 20 year annualized return for the U.S. equity would have been 8.1% annualized. However, using data from 1978





does not provide as many 20 year data points compared to using data from 1956 for the S&P/TSX index. Further, 8.1% is relatively high compared to approximate 6.1%-6.2% U.S. equity return used from the 2009 GRA to the 2014 GRA.

- b) The table below provides the S&P 500 and Russell 3000 total returns on an annual basis for the last five years.

12 months ended at	S&P 500 Index return	Russell 3000 Index return
2/26/2010	53.6%	56.0%
2/28/2011	22.6%	24.3%
2/29/2012	5.1%	4.4%
2/28/2013	13.5%	13.6%
2/28/2014	25.4%	26.7%

- c) The major impact on basic net income of using the U.S. equity returns from Part (a) (5<sup>th</sup> percentile 20 year annualized return) is that the rebalancing from U.S. equities to marketable bonds will occur in 2017/18 rather than in 2018/19, as the asset class will exceed the maximum allowed allocation to the asset class (7%) earlier than otherwise. The Basic net income impact is shown in the table below.

Basic Net Income Impact of using U.S. Equities returns instead of Canadian Equity Returns

	2014/15	2015/16	2016/17	2017/18	2018/19
U.S. Equity Return Scenario	(38,034)	(6,196)	18,755	41,411	12,016
2015 GRA Base	(38,042)	(6,337)	17,993	26,651	25,046
<b>Difference</b>	8	141	762	14,760	(13,030)

**PUB (MPI) 2-10****Reference: PUB/MPI 1-17 (c)**

- a) The answer provided did not answer the question posed. Please describe what line of business had a negative equity.
- b) How the negative equity was addressed?
- c) If there was a negative equity in that line of business last year, in the four year average, why is the Corporation making a change to the cost allocation methodology this year?
- d) Why would making a change eliminating an actual equity situation be a more fair representation for the allocation of investment income?

**RESPONSE:**

- a) and b)

Basic was not the line of business that had a negative equity.

The answer to this information request has no bearing in determining the reasonableness of the rate increase being requested, other than determining that the line of business was not Basic, which we have confirmed. Which specific line of business is not germane to the rate setting process. Furthermore, this is the issue of the stated case heard by the Court of Appeal, and accordingly, the Corporation need not provide this information.

- c) As noted in PUB (MPI) 1-17 (b):

"The Basic investment income allocation calculation is complex. The allocation involves allocating certain general ledger balance sheet accounts by line of business using account specific allocations to determine a net equity position. This complex process cannot be reproduced in the current version of the financial model as the model does not have account level detail and assumptions would



need to be made that would undermine the calculation. As a result, the allocation percentage for future periods would be an estimate.”

The forecast is based on a four year rolling average as a proxy for how the actual allocation will be done during the year with the actual results.

The negative equity has been addressed in the current year due to variance analysis work done during the previous year that noted the estimate in the previous year’s forecast was not as accurate as it could have been due to this anomaly. The Corporation has improved the process by addressing the anomaly. The Corporation still believes the current approach produces a better reasonable estimate without adding additional complexity to the process.

- d) As noted in c), the allocation of Investment income is done based on actual net equity positions throughout the year. The forecast approximates the allocation but does not represent the exact calculation due to it being a forecast. As the line of business is now in a positive equity position, the negative equity in the four year allocation is an anomaly that misrepresents where the results will more probably be.

**PUB (MPI) 2-11**

**Reference: PUB/MPI 1-23**

Given the answer provided, please confirm that the Corporation's view of the probability of interest rate changes is based on an observation of the position of current interest rates relative to a floor and is not based on any supported technical analysis.

**RESPONSE:**

Technical analysis was performed on the probability of interest rate changes. As stated in PUB (MPI) 1-23, please see pages 40 to 47 of the 2014 DCAT Report for further analysis on the probability of interest rates declining.

**PUB (MPI) 2-12**

**Reference: PUB/MPI 1-29**

- a) Has the Corporation considered expanding the number of its forecasters (National Bank, Laurentian Bank) so as to adopt an Olympic forecasting adjustment?
- b) Please indicate the impact on the proposed rate increase of applying a risk adjustment for interest rates, assuming that net Income is retained at current levels.

**RESPONSE:**

- a) Yes.
- b) The impact on the proposed rate increase of applying a risk adjustment for interest rates or the low growth interest rate scenario was disclosed on page 11 of the Pre-Filed Testimony of Mr. Guimond. Applying the low growth interest rates to the base forecast, retained earnings and net income would fall by a further \$16 million and the applied for rates would be deficient by at least 1.9% in addition to the 2.4% applied for. To be clear, Olympic averaging was not used in this analysis.

**PUB (MPI) 2-13****Reference: PUB/MPI 1-34**

- a) Please regenerate the trend graphs by coverage provided in this response, overlaying the actual historical experience for each of the six Major Classes.
- b) Please provide a comparative table summarizing the selected annual trends by coverage for the current GRA with those selected for the two prior GRAs.
- c) Please discuss what consistency should be expected between the selected pure premium trends in the ratemaking analysis [RM Exhibit V] when combined with the selected volume factor of 1.75% [R.1.1, Page 9], vs. the forecasted annual change in ultimate incurred losses by accident year from the analysis of claims incurred [CI]. Please include with your response a comparative table summarizing the selected assumptions by coverage between the two analyses.

**RESPONSE:**

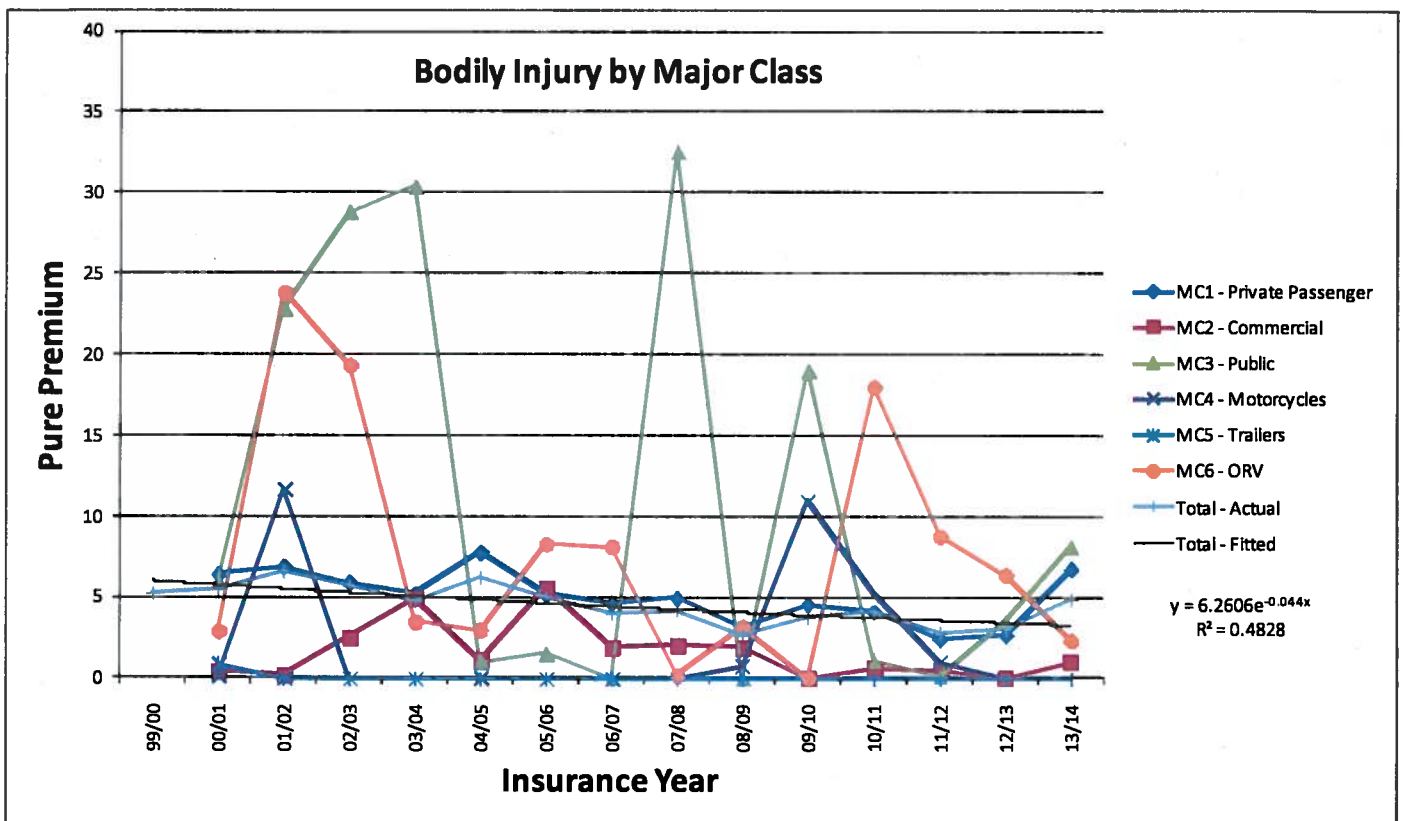
- a) Refer to the attached graphs.
- b) Refer to the table below which presents the selected trends in pure premiums for the three most recent GRA.

<b>Coverage</b>	<b>2015 GRA</b>	<b>2014 GRA</b>	<b>2013 GRA</b>
Income Replacement Indemnity	0.75%	0.00%	0.00%
Accident Benefits – Other (Indexed)	1.00%	0.75%	0.50%
Accident Benefits – Other (Non-Indexed)	0.75%	1.00%	1.75%
Bodily Injury	0.00%	0.00%	0.00%
Collision	3.00%	2.25%	2.25%
Comprehensive	1.50%	2.50%	2.50%
Property Damage	1.50%	0.75%	2.25%

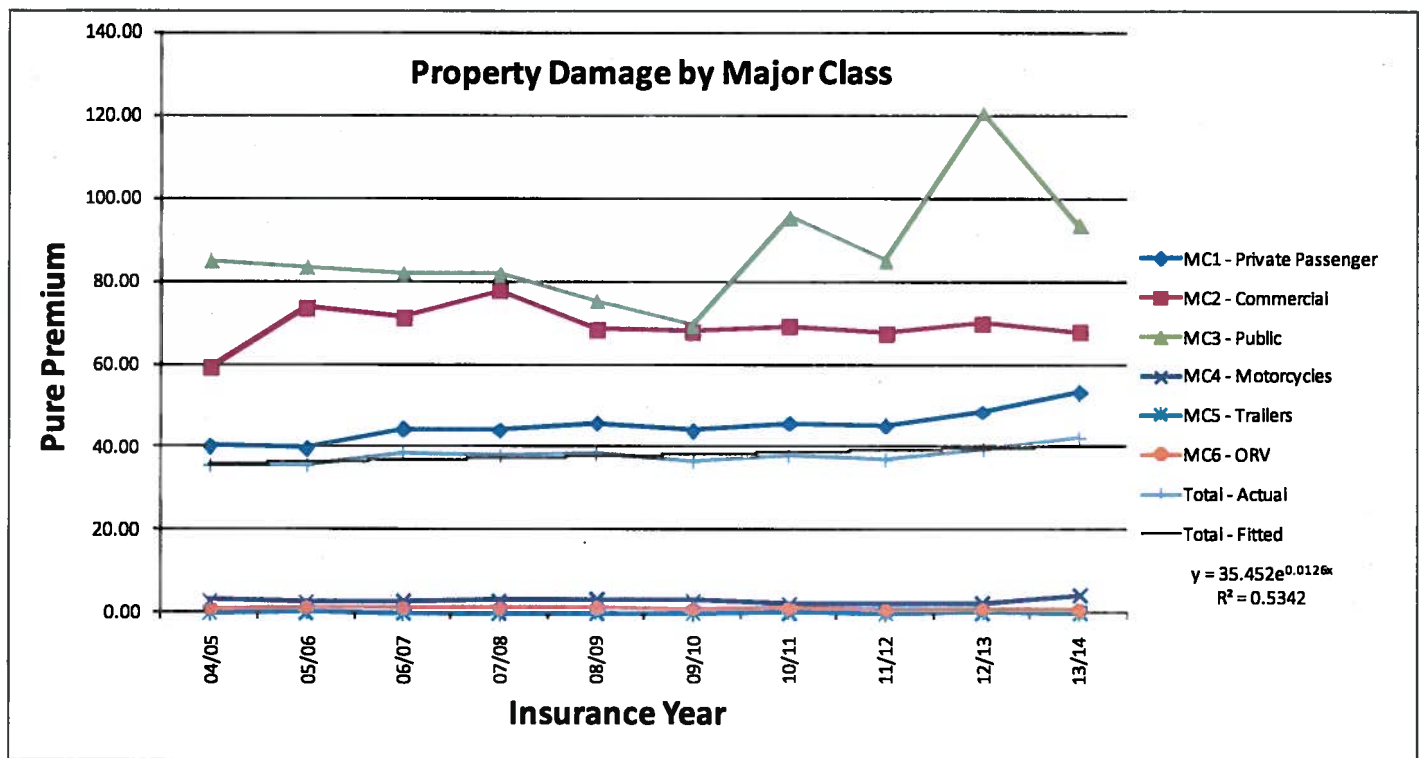
c) Refer to the table below.

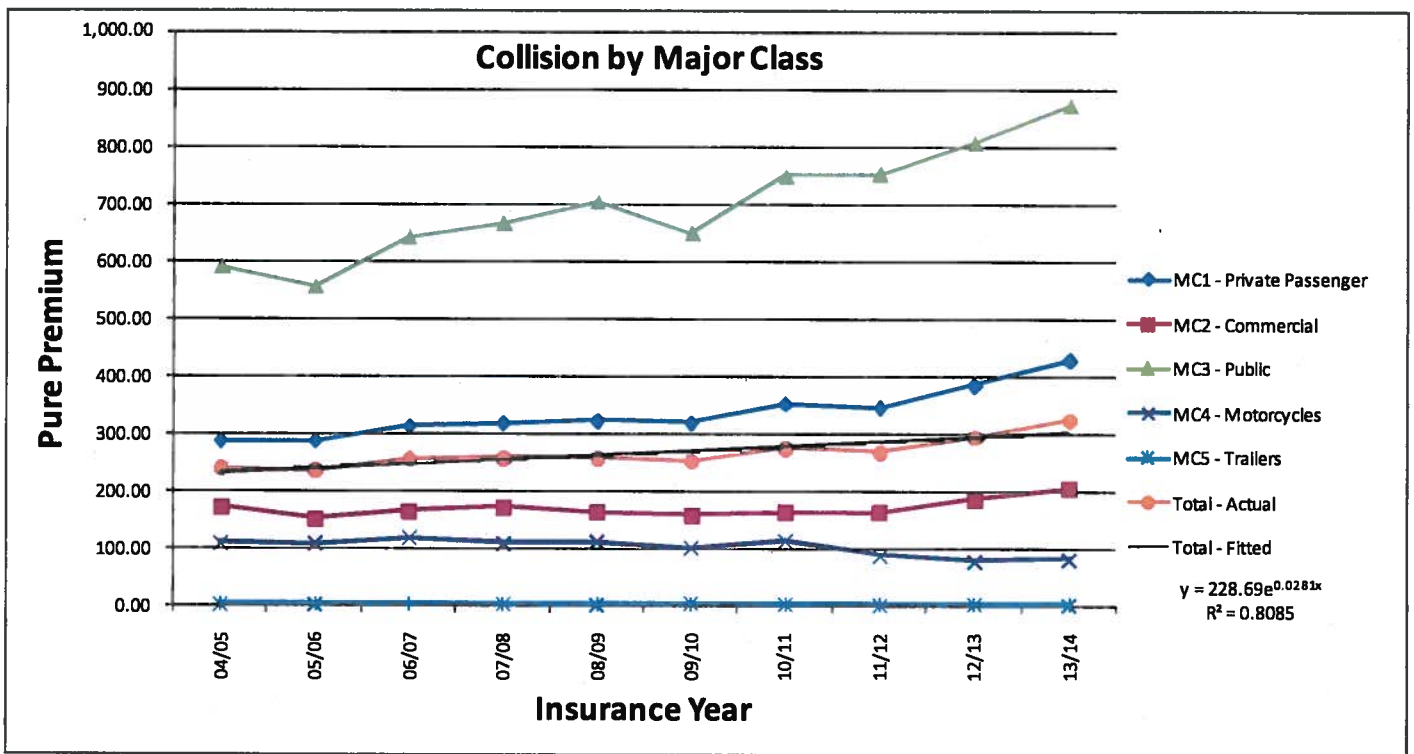
<b>Coverage</b>	<b>Pure Prem Trend – RM Exhibit V</b>	<b>Implied Ultimate Trend*</b>	<b>2015/16 Ultimate Growth – CI</b>
Income Replacement Indemnity	0.75%	2.51%	0.77%
Accident Benefits – Other (Indexed)	1.00%	2.77%	0.85%
Accident Benefits – Other (Non-Indexed)	0.75%	2.51%	1.78%
Bodily Injury	0.00%	1.75%	0.69%
Collision	3.00%	4.80%	6.12%
Comprehensive	1.50%	3.28%	4.41%
Property Damage	1.50%	3.28%	3.72%
*(1 + Pure Prem Trend) * (1 + 1.75%) – 1			

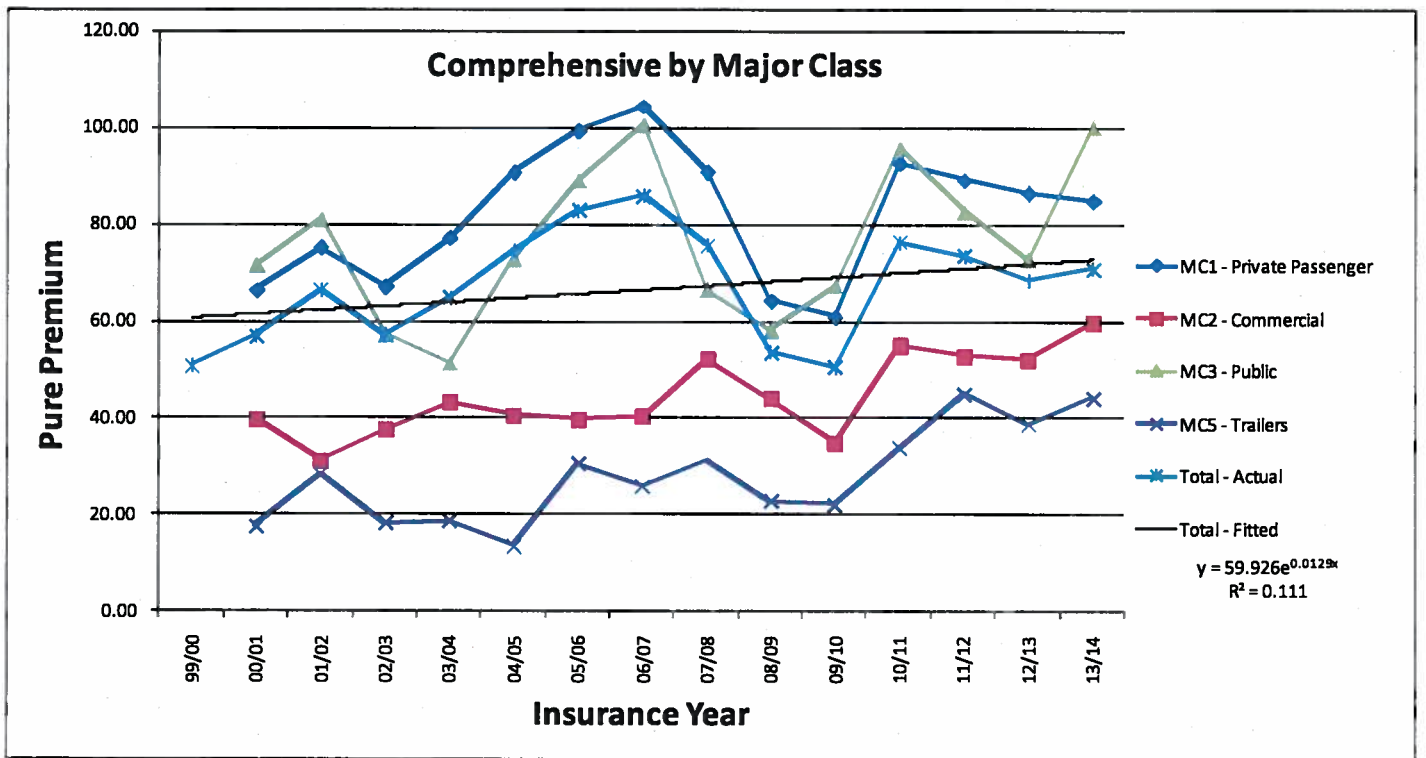
No consistency is required between the two sets of factors. The assumed ultimate growth as presented in Claims Incurred (Volume II) is projected future growth based on a thorough analysis of the future environment in which the Corporation will operate. The pure premium trend as presented in Ratemaking Exhibit V (Volume II) is to bring prior years' losses to current (2013/14) benefit levels (i.e. it reflects the trend in actual prior years' losses).

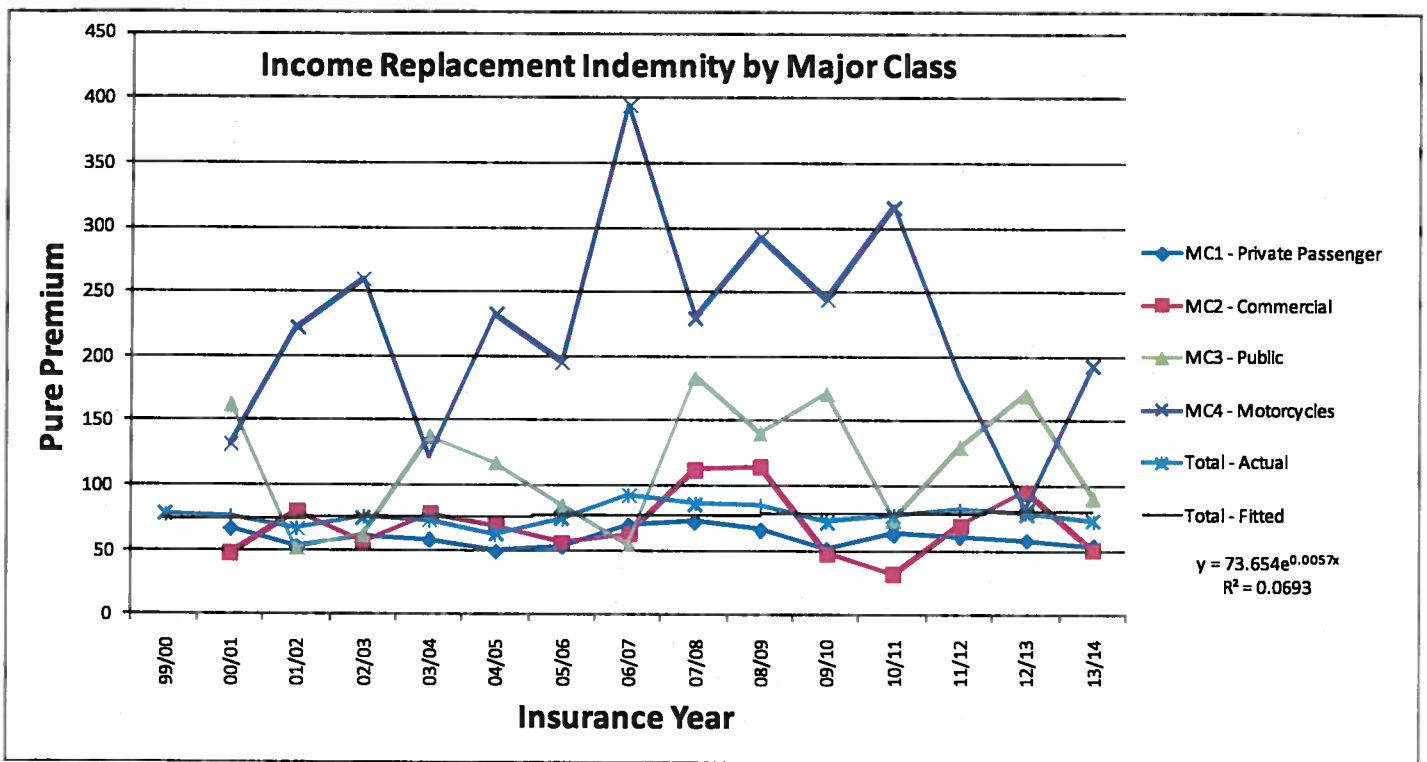


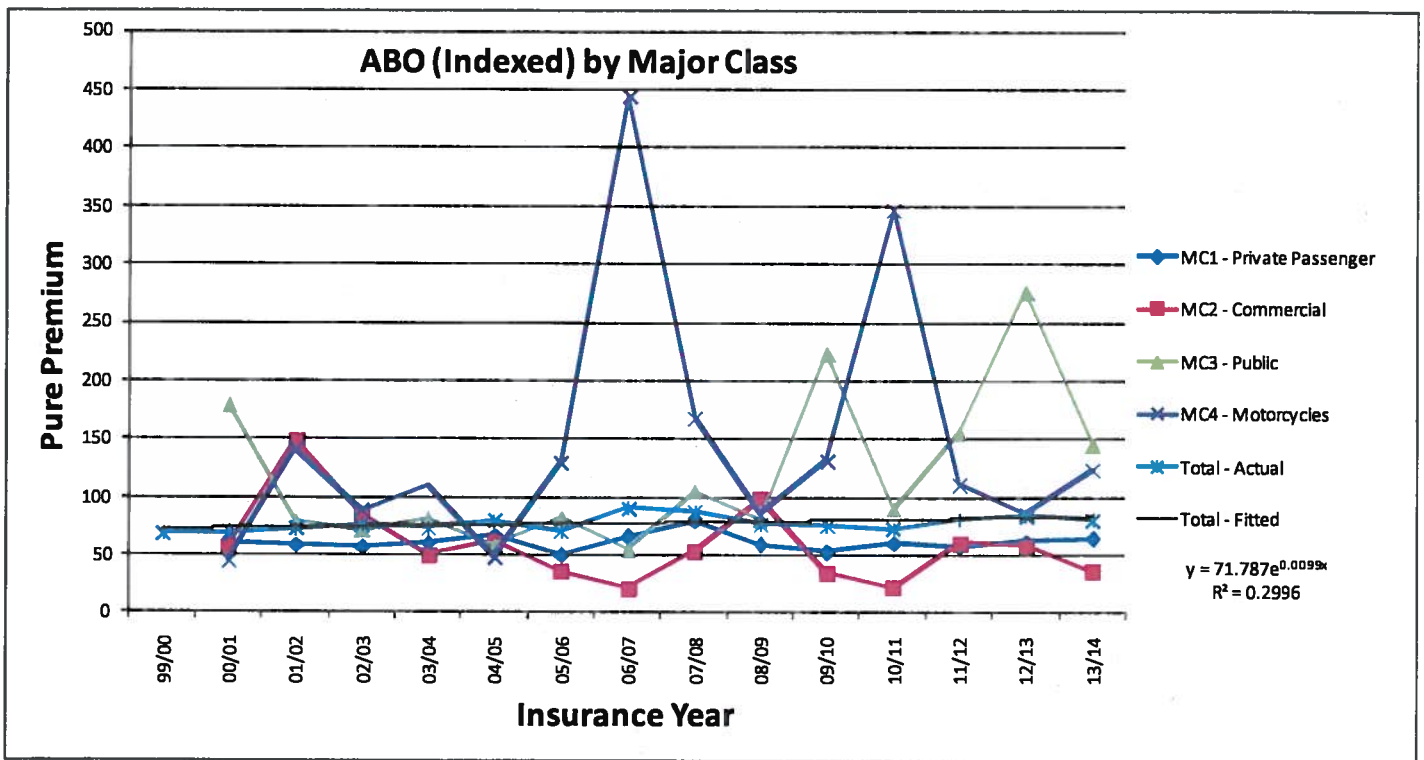


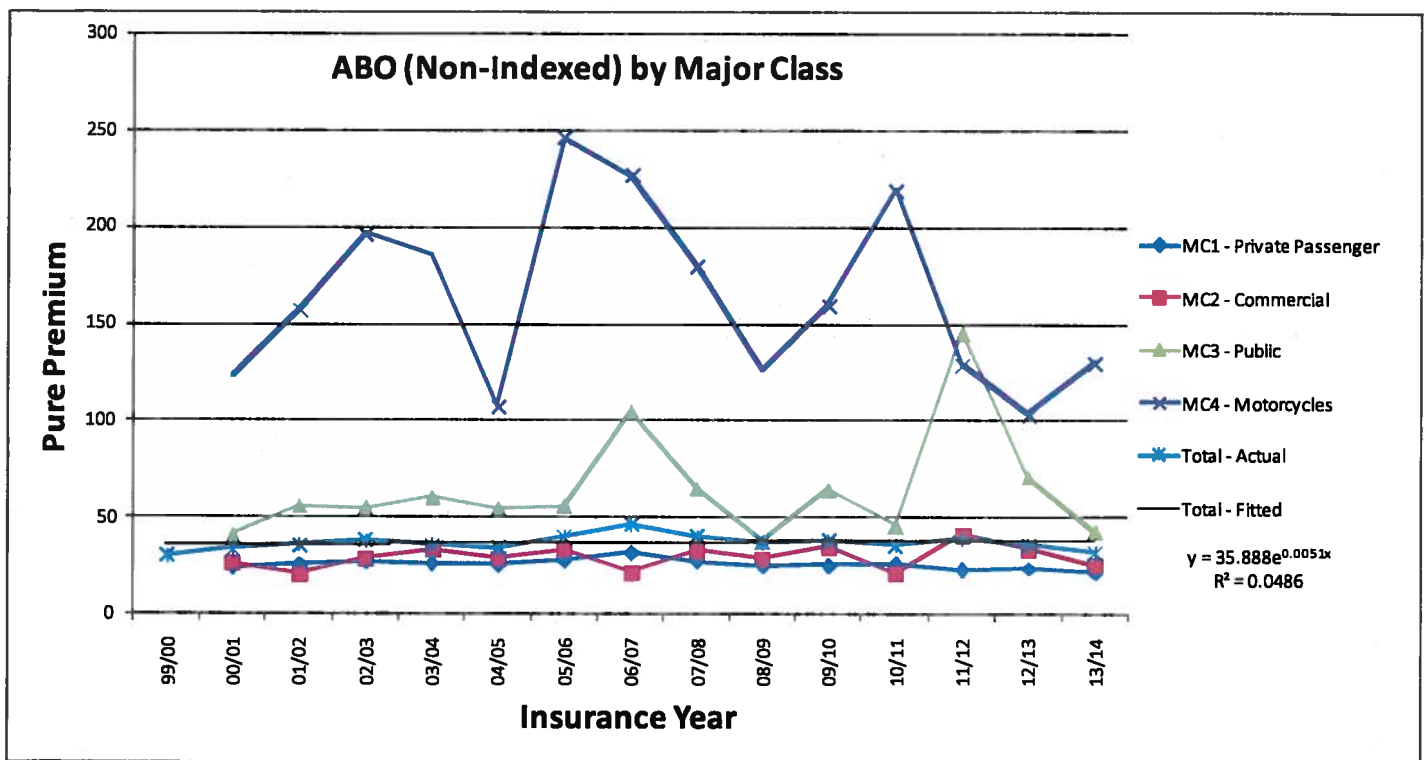












**PUB (MPI) 2-14****Reference: PUB/MPI 1-38**

Please provide a comparative table summarizing the selected assumptions by coverage between the two analyses.

**RESPONSE:**

Refer to the table below:

Coverage	Trend in Ultimate Losses	Trend in Units	Trend in Pure Premium	
			Actuary's Report	Ratemaking
	[1]	[2]	[3]	[4]
Accident Benefits – Weekly Indemnity	0.75%	1.58%	-0.82%	0.75%
Accident Benefits – Other (Indexed)	1.25%	1.58%	-0.32%	1.00%
Accident Benefits – Other (Non-Indexed)	3.25%	1.58%	1.64%	0.75%
Bodily Injury	0.00%	2.42%	-2.36%	0.00%
Collision	5.75%	2.81%	2.86%	3.00%
Comprehensive	4.50%	2.42%	2.03%	1.50%
Property Damage	3.75%	2.81%	0.91%	1.50%

[1]: Volume III, AI.7, Actuary's Report as at February 28, 2014

[2] & [4]: Volume II, Ratemaking, Exhibit V

[3] =  $(1 + [1]) / (1 + [2]) - 1$



**PUB (MPI) 2-15**

**Reference: PUB/MPI 1-40 and 1-41**

- a) Prior to the 2013 PIPP claims review, were case reserves being set consistently even if not in accordance with existing reserving guidelines?
- b) Over what period of time were deviations from existing reserving guidelines being applied prior to the 2013 PIPP claims review?
- c) Please discuss the rationale for the assumption that case reserves “will develop similar to prior development” as stated in the response to PUB (MPI) 1-40a) and 1-41a), considering that increasing case reserves at a point in time effectively accelerates incurred emergence
- d) Was consideration given to adjusting historical case reserves to reflect existing reserving guidelines, and then basing the analysis of incurred development on the restated historical development experience? If not, why not?
- e) Please discuss the Corporation’s view with respect to the extent to which the increase in case reserves triggered by the 2013 PIPP claims review was at all redundant with the IBNR provision held just prior to the 2013 PIPP claims review.

**RESPONSE:**

- a) The reserving guidelines for injury claims have not changed during the recent period in which the reserving issues were identified by the Chief Actuary. The under reserving was not done in any sort of consistent or intentional manner.
- b) There appear to be deviations from existing reserving guidelines on active injury claims (specifically income replacement claims) over the last three fiscal years. Since injury claims from older loss years (i.e. more than three years ago) may still have been active (i.e. open claims receiving IRI payments) during the past three fiscal years, the reserving issues also extend to these claims in some cases.



- c) The Corporation expects that case reserves will develop consistent with the development patterns that existed prior to the recent three year period in which the inconsistent reserving took place. However, the Chief Actuary will continue to revise all assumptions to reflect emerging trends in the data.
  
- d) If inadequate reserving was the only issue with recent PIPP experience, then the Corporation agrees that such an approach might be reasonable. However, the reserving issues on income replacement claims also coincided with other injury claims management issues relating to claims duration and the percentage of maximum entitlement received by claimants on income replacement claims (i.e. higher open claim and loss payment amounts at each stage of development). The Corporation is working to restore all of these indicators to historical benchmarks. See CAC (MPI) 1-29.
  
- e) The IBNR provision was inadequate relative to the amount of case reserves added from the 2013 PIPP claims review. See CAC (MPI) 1-29.

**PUB (MPI) 2-16**

**Reference: PUB/MPI 1-45**

This information request was specific with respect to the cash flows relating to the revenue at the indicated rate, whereas the response discussed cash flows relating to claims costs and expenses. Please discuss how the derivation of the estimated overall indicated rate change of +7.6% recognizes the present value of cash flows relating to the revenue at the indicated rate.

**RESPONSE:**

Refer to PUB (MPI) 1-44.



**PUB (MPI) 2-17**

**Reference: PUB/MPI 1-46,  
PUB/MPI 1-47**

- a) Considering the fixed income portfolio is assumed to underlie the actuarial liabilities for discounting purposes, please discuss the relative weights being assumed for the forecasted returns on fixed income investments versus equity investments for purposes of estimating the expected "Average Investment Income from [Basic Total] Equity" in the response provided to PUB (MPI) 1-46.
  
- b) Please restate the indicated rate change derived in accordance with accepted actuarial practice in Canada to reflect an assumed discount rate of 4.34%, derived as the average of the Corporation's projected discount rates at the beginning and end of the proposed rating period (4.15% and 4.53%, respectively).

**RESPONSE:**

- a) The following table presents the derivation of the expected investment return on the assets supporting Basic Total Equity. We have restated the response to PUB (MPI) 1-46 to exclude investment income from the fixed income portfolio supporting policy liabilities (i.e. unearned premium and unpaid claim liabilities). In addition, we also excluded the policy liabilities from total liabilities.

(All figures in \$000)			
		2014/15	2015/16
Total Liabilities excl 'Unearned Premium and Fees' and 'Provision for Unpaid Claims'	Pro Formas, Pg 4	305,951	322,553
Total Equity	Pro Formas, Pg 4	132,738	133,408
		2015/16	2016/17
Investment Income excl such from the fixed income portfolio [a, b]	Investment Income, Page 5	32,244	49,994
Investment Income from Equity [c]		9,756	14,628
Average Investment Income from Equity			12,192
Notes:			
[a] Investment income is assumed to be earned on the assets as at the end of the fiscal year.			
[b] Excludes interest income or gains/losses from cash/short term investments, marketable bonds and MUSH; Basic's portion is 83.82%.			
[c] $\text{Total Equity} / [\text{Total Liabilities} + \text{Total Equity}] * \text{Investment Income}$			

The inclusion of the average investment income from equity of \$12,192,000 will result in a rate decrease of approximately 1.5% (i.e. the required overall rate increase would be 6.1% instead of 7.6%).

- b) Assuming a selected discount rate of 4.34%, the overall indicated rate change would be 7.25%.

**PUB (MPI) 2-18****Reference: PUB/MPI 1-49**

Please add to the response to PUB (MPI) 1-49 d) explaining how the possibility of distinct claim count and amount development patterns between the two groups is addressed, and specifying the extent of the total claims experience lost by excluding claims between \$100,001 and \$250,000.

**RESPONSE:**

Each individual claim is developed to ultimate. The claims are then pooled into the two groups. These two groups, less than \$100,000 and greater than \$250,000, were selected as they represent the majority of the claims. For example, claim counts between \$100,001 and \$250,000 for Weekly Indemnity in 2013/14 represent only 3.82% of total claim counts and only 16.68% of incurred.

Using all three groupings, the revised forecasts would be as follows.

**Revised PIPP Ultimate Forecast (\$000)**

	14/15	15/16	16/17	17/18	18/19
Weekly Indemnity	61,005	61,397	61,787	62,176	62,563
ABO-Indexed	65,163	65,701	66,243	66,789	67,341
ABO-NonIndexed	29,787	30,173	30,564	30,960	31,361

**Difference from Base PIPP Ultimate Forecast (\$000)**

	14/15	15/16	16/17	17/18	18/19
Weekly Indemnity	(77)	(156)	(236)	(317)	(399)
ABO-Indexed	(15)	(29)	(44)	(60)	(75)
ABO-NonIndexed	(142)	(288)	(439)	(594)	(754)



**PUB (MPI) 2-19**

**Reference: PUB/MPI 1-49 (b), PUB/MPI 1-49 (e), PUB/MPI 1-50,  
PUB/MPI 1-51**

Please augment the discussion of the rationale for the selection of each of these trends, including reflection on the relative strength and performance of each selected regression model.

**RESPONSE:**

**PUB/MPI 1-49 (b)**

The significance of the overall regression model was 0.1481, which is significant enough for the purposes of modeling claim counts. A flat 5-year and 10-year average claim count was considered, however; these averages would have produced a forecasted ultimate incurred 2% to 8% higher than current forecasts.

**PUB/MPI 1-49 (e)**

The important factor in this trend selection is the "X Variable 1", which has a p-value of 0.0001. The purpose of this model is to measure the historical growth by applying regression analysis to the historical severity.

**PUB/MPI 1-50**

Both of the regression models are statistically significant as shown under the "Significance F" column. In part (b), the important factor is the "X Variable 1" which represents the growth of severity.

**PUB/MPI 1-51**

Part (a) shows a very weak regression model which is why a simple average of 1,485 was used throughout the forecast period instead of the regression model for modeling claim counts. For part (b), again the important factor is the "X Variable 1" which is statistically significant as shown by its low p-value of 0.0001.

**PUB (MPI) 2-20**

**Reference: PUB/MPI 1-52 (d)**

Considering Mr. Guimond's pre-filed testimony in this regard, can the Corporation provide some sense as to how quickly and how significantly these automobile technological changes may impact Basic claims costs beyond what is already recognized in the GRA forecast?

**RESPONSE:**

As indicated in PUB (MPI) 1-52(d), the Corporation will be watching these trends closely and continue to update our forecasts each year based on the latest information available. As different manufacturers alter and introduce different models in different years, and make different technological changes, Basic claims costs will be altered over a number of years, not all at once. Each forecast for the year of the GRA will recognize these technological changes for that year. The Corporation recognizes the importance of these changes and will be monitoring them and their impact on claims costs.

**PUB (MPI) 2-21**

**Reference: PUB/MPI 1-56**

The Cost Allocation Methodology was to reflect the allocation of all Corporate costs among lines of business. Removing accounting units and cost allocators from the methodology does not reflect the full allocation methodology.

- a) Please file an updated Appendix 4 fully reflecting the cost allocation of all Corporate costs on a consistent basis with last year's application.
  
- b) Please provide a table that details for each IT/BTO project the methodology used to allocate costs between lines of business, the rationale for the allocation, and the allocation to Basic on a % and dollar basis. Please indicate which projects are new and are being allocated in 2014/15, 2015/16 and 2016/17.

**RESPONSE:**

- a) Refer to Attachment A, which is a revised Appendix 4 with corporate allocations.
  
- b) For basic dollars by project 2014/15 to 2018/19, refer to Volume II Expenses, section E.4.2 Total Capital Expenditures, Multi-year Capital table on page 26.

Refer to Attachment B for Basic allocation percentages. Each project is analyzed to determine which lines of business will benefit and to what degree. The allocation is based on this analysis.



**Appendix 2:  
Cost Allocation Methodology Detailed Allocation Definitions**

Category	Cost Category	Accounting Units	PUB Approved Method
Injury claims management - PIPP	A	018,042,048,052,054	Insurance based on Claims Incurred (Basic & Ext) then 100% Claims
Injury claims management - Liability	S	019	Insurance based on Claims incurred (B,E &SRE) then 100% Claims
Claims Ins support operations	B	003,011,079	Insurance based on Claims Incurred (B,E&SRE) then 100% Claims
Loss prevention programs	C	008,010	Insurance based on Claims Incurred (B,E&SRE) then 100% Road Safety/Loss Prevention
Driver licensing and control	D	098,101,105,106,107	100% Non-Insurance
Driver records	E	104	50/50 Insurance/Non-Insurance then Insurance 100% Basic Operating
Vehicle registration	F	102	18.4% Insurance 81.6% Non-Insurance then Insurance 100% Basic operating
Vehicle standards and inspection	G	103	100% Non-Insurance
Claims centres	H	023,026,027,035,260,261	Insurance based on Claims Incurred (B,E&SRE) then 100% Claims
Service centres	I	013,014,015,016,017,021,025,029,031,032,033,034,037,039,041,046,047,049,050	Insurance and Non-Insurance based on COB salary ratio then Insurance based on Claims Incurred (B,E&SRE) then Claims and Operating based on FTE percentage
Physical damage centre	J	022,077,108,109	Insurance based on Claims Incurred (B,E&SRE) then 100% Claims
Central administration	K	005,038	Insurance and Non-insurance based on WCCCCR then Insurance based on Claims Incurred (B,E&SRE) then 100% Operating
Physical properties	L	072,110,114,115,116,117,118,119,120,121,122,125,127,129,130,132,133,134,135,137,139,141,144,145,161,177,178,185,187	072 including allocated Corporate Benefits plus all buildings allocated based on square footage

**Appendix 2:**  
**Cost Allocation Methodology Detailed Allocation Definitions**

Category	Cost Category	Accounting Units	PUB Approved Method
Corporate information technology	M	081,093,094	Insurance and Non-Insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then Claims and Operating based on FTE percentage
Human resources and training	N	071,080,083	Insurance and Non-insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then 100% Operating
Advertising and communications	O	066,070,074	Insurance and Non-insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then 100% Operating
Fair practices	P	043	Insurance and Non-Insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then Claims and Operating based on FTE percentage
Accounting and finance	Q	002,004,006,012,045,067,095	Insurance and Non-insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then 100% Operating
Investments	R	064	100% Insurance (B,E&SRE) based on Claims Reserve/Unearned Premium then 100% Operating
Employee benefits	T	007	Allocated to units based on Compensation \$'s/Total Compensation \$'s * unit 007 Expenses
Legal	U	059	Insurance and Non-Insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then Claims and Operating based on FTE percentage
ID verification and data integrity	V	069	Based on work effort 50/50 Insurance & Non-insurance. Insurance (B,E&SRE) based on Claims Incurred then 100% Operating

**Appendix 2:  
Cost Allocation Methodology Detailed Allocation Definitions**

Category	Cost Category	Accounting Units	PUB Approved Method
Customer service and support	W	076,086	Insurance and Non-insurance based on WCCCCR then Insurance based on Claims Incurred (B,E&SRE) then 100% Operating
Basic policy	X	036	100% Basic Operating
Extension	Y	085, 220	100% Extension Operating
Special risk extension	Z	084	100% SRE Operating
Enterprise systems support	AA	068,075,087,088,091	Insurance and Non-Insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then Claims and Operating based on FTE percentage
Internal audit	BB	055	Insurance and Non-insurance based on WCCCCR then Insurance based on Claims Incurred (B,E&SRE) then 100% Operating
Regulatory/appeal	CC	062	Crown Corp Levy allocated Insurance and Non-insurance based on WCCCCR then Insurance based on Claims Incurred (B,E&SRE) then 100% Regulatory/Appeal  Remainder 100% Basic Regulatory Appeal
Management committee	DD	063	Insurance and Non-insurance based on WCCCCR then Insurance based on Claims Incurred (B,E&SRE) then 100% Operating
Contact Centre Operations	EE	078	Insurance and Non-Insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then Claims and Operating based on FTE percentage
Business Transformation Office	FF	092	Refer to Improvement Initiatives for allocation uses the average of all BTO initiatives undertaken for the year.
Product & Policy Management	ZZ	096, 058, 060	Insurance and Non-Insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then Claims and Operating based on FTE percentage

## Initiatives

Category	Board Approved Method	Basic %
AOL PUB Release	Insurance 100% Operating Basic	100%
Autotheft Suppression High School Driver Education	Insurance based on Claims Incurred (B,E&SRE) then 100% Road Safety/Loss Prevention	86.30%
BI3 Fineos Upgrade PIPP Mediation	Insurance 100% Claims Basic	100%
Disaster Recovery EDMS Kofax Capture Enterprise Data Masking Enterprise Telecomm HR Management System (all Phases) IT Optimization Legal Management Ongoing Initiative costs Predictive Analytics Provision for Future Projects Security Strategy	Insurance and Non-Insurance based on WCCCR then Insurance based on Claims Incurred (B,E&SRE) then Claims and Operating based on FTE percentage	79.88%
Physical Damage Reengineering	Insurance based on Claims Incurred (Basic & Ext) then 100% Claims	91.30%

**PUB (MPI) 2-22****Reference: PUB/MPI 1-57 (a)**

Please provide a breakdown by project of IT Optimization ongoing expenditures forecast for 2016 and 2017, with descriptions.

**RESPONSE:**

<b>(\$000's)</b>	<b>2015/16</b>	<b>2016/17</b>
<b><u>IT Optimization Project</u></b>	<b>\$</b>	<b>\$</b>
Data Processing	1,348	1,348
Depreciation of Capital	491	246
Amortization of Deferred Development	-	3,306
<b>Total</b>	<b>1,839</b>	<b>4,900</b>

**PUB (MPI) 2-23**

**Reference: PUB/MPI 1-69 (a)**

This question addresses the trend of staffing levels and the impact on current and future operating results for rate-setting purposes.

- a) Please provide the Corporate Normal staffing level budget for 2014/15 and indicate to what extent it reflects the 30 FTE targeted staff reduction.
- b) Please provide the Corporate Staffing Levels for Implementation operations for 2009/10 through 2016/17.
- c) Please provide the total Corporate Staffing Levels for 2009/10 through 2016/17.
- d) Please provide a schedule detailing the number of contracted positions for 2009/10 through 2016/17.

**RESPONSE:**

- a) Please see the table in section E.2.1.2 on Page 15 of Volume II Expenses for the 2014/15 corporate normal staffing level budget. The corporate normal staffing budget for 2014/15 does not reflect the 30 FTE targeted staff reduction. Please refer to PUB (MPI) 1-68 and PUB (MPI) 2-24 for further information.

- b) Corporate Staffing Levels of Implementation Operations for 2009/10 through 2016/17 are provided below. Note, we do not budget temporary FTEs until we know if we will be using external staff or internal FTEs. The implementation budget for these years does have funds budgeted for either type of expenditure.

<b>Manitoba Public Insurance Implementation Operations Staffing</b>			
<b>Fiscal Year</b>	<b>Actual</b>	<b>Budget</b>	<b>Over (under) Variance</b>
2009/10	193.9	365.8	(171.9)
2010/11	48.6	81.6	(33.0)
2011/12	15.4	26.2	(10.8)
2012/13	17.1	35.1	(18.0)
2013/14	15.0	16.5	(1.5)
2014/15		16.5	
2015/16		-	
2016/17		-	

- c) Corporate Staffing Levels for 2009/10 through 2016/17 are provided below.

<b>Manitoba Public Insurance Corporate Staffing</b>			
<b>Fiscal Year</b>	<b>Actual</b>	<b>Budget</b>	<b>Over (under) Variance</b>
2009/10	1,946.8	2,149.6	(202.8)
2010/11	1,871.4	1,931.7	(60.3)
2011/12	1,878.3	1,952.7	(74.4)
2012/13	1,911.8	1,971.8	(60.0)
2013/14	1,905.3	1,951.2	(45.9)
2014/15		1,944.2	
2015/16		1,927.7	
2016/17		1,927.7	

- d) The Corporation does not have contracted positions.

**PUB (MPI) 2-24**

**Reference: PUB/MPI 1-17  
2014 GRA, TI.8**

- a) Please provide in the detail provided in E.2.1.1 Compensation expense from 2009/10 through 2015/16 and indicate the relative % change in each cost category.
- b) The vacancy allowance increasing from \$269,000 in 2016 and \$257,000 in 2017 does not appear to reflect a targeted 30 FTE staff reduction. Please refile PF.1, PF.2 and PF.3 reflecting a total 30 FTE reduction in staffing levels in 2015/16 and E.2.1.1. Please provide supporting calculations.

**RESPONSE:**

- a) Information supporting forecasted compensation has been provided on page 7 table E.2.1 of Volume II Expenses. In addition, please refer to response provided in PUB (MPI) 1 -71 (c).
- b) As indicated on page 14 of Volume II Expenses, management will undertake a careful analysis of vacated positions and will look to eliminate up to 30 positions. Any dollar impact or timing of such events are not certain at the current time and as such, it will be reflected in subsequent applications as the information becomes available.

It is also important to note that while the vacancy allowance may appear to only have increased by 269,000 and 257,000 in 2015/16 and 2016/17 respectively, this is from a vacancy allowance amount that increased by \$1,130,000 in 2014/15 above what was actually achieved in 2013/14. The increase in 2014/15 will be achieved in part through the hiring freeze currently in place.



**PUB (MPI) 2-25**

**Reference: PUB/MPI 1-17,  
2014 GRA, TI.8**

TI.8 last year reflected a \$10.9 million increase in compensation in 2010/11. In this year's filing, the Corporation provided a table indicating total Corporate salary increases of \$2.2 million.

Please reconcile the table of expenses on page 17 for Corporate with PUB/MPI 1-74 (a) from the 2014 GRA for 2010 through 2013 and provide the detail of Basic's share of compensation increases by Category.

**RESPONSE:**

The table in Volume II Expenses, page 17, represents the corporate *salary* changes of normal operations whereas table TI.8 within the 2014 GRA represents the annual change in Basic share of annual corporate *compensation* including improvement initiatives. Compensation includes the following; salaries, retirement/severance payouts, overtime, vacation payouts, health & education tax, and benefits.

Analysis related to Basic compensation has already been provided in the 2015 Rate Application in Volume II Expenses, page 12.

**PUB (MPI) 2-26**

**Reference: PUB/MPI 1-74 (a) & (b), CAC/MPI 1-76, CAC/MPI 1-77**

- a) Please provide a comparison between the total budget for the HRMS project provided last year with the current GRA and explain the reasons for the variance.
- b) Please explain the increases in deferred development for the IT optimization project in 2014/15 and 2015/16 and indicate the nature of the expenditures.
- c) Please provide the requested supporting calculations for the IT provisions by project relative to the \$53.9 million in forecast spending.
- d) Please indicate what the Corporation is budgeting for contractor related and implementation costs for 2015/16 and 2016/17 related to these undefined projects.

**RESPONSE:**

- a) There is no variance between the total HRMS budget submission in the 2014 GRA as compared to the total budget in the 2015 GRA. In last years' GRA, the overall budget for the HRMS project was \$16 million as a whole. In this years' GRA, the overall HRMS budget is also \$16 million except the budget has been split into a phase type structure (separating phase 1 and 2 from 3 and 4) and has been distributed differently.
- b) The increases relate to timing. Expected deferred development expenditures in the 2014 GRA for the IT Optimization project were not realized and reforecasted in 2014/15 and 2015/16 in the 2015 GRA.
- c) As previously noted in PUB (MPI) 1-74 b), the provision for future project expenses is a management forecast of potential and yet unknown projects. The Corporation is committed to continual improvements in service and efficiency

through the application of technology. Therefore, the Corporation expects that projects will be determined, outlined, and undertaken in the future. As a result an adequate provision for these projects should be included in the forecast.

- d) The forecasted expenditures related to the provision for future projects have been classified as deferred development costs, capital costs, and data processing expenses. Given that the projects that will be completed as part of this provision are unknown, a further breakdown of the potential nature of the costs is not possible.

**PUB (MPI) 2-27**

**Reference: PUB/MPI 1-82**

- a) Please provide total corporate expenditures in the level of detail found in Appendix 1 for 2009/10 through 2018/19 and provide the compound annual growth rate for 2009/10 to 2013/14, 2013/14 to 2016/17 and 2016/17 to 2018/19.
- b) Please provide the same detail as in (a) for Basic.
- c) Please provide the percentage of expenditures allocated to Basic.
- d) Please provide expense details, in a similar level of detail as the schedule on Expenses, page 4, by expense category, for 2010/11 through 2013/14 actual and 2014/15 to 2018/19 forecast for Corporate and Basic, that reconcile with the reported operating costs by cost category per the Annual Report and the Basic Annual Report filed with this application.
- e) For the schedule in part d) please provide an additional column indicating the associated FTE's by Normal, Initiative Implementation and Initiative Ongoing assigned to Basic and the total Corporate FTE's by year and relative % of Basic FTE's of Corporate.

**RESPONSE:**

- a) Corporate expenditures can be found in Volume II Expenses, Table E.2.1 and Appendix 1 for the fiscal years 2013/14 to 2018/19. For 2009/10 to 2012/13, please refer to previous General Rate Applications.
- b) As previously stated in PUB (MPI) 1-82:  
"To provide these allocations in "expense categories does not provide a useful comparison year over year. Costs are accumulated at the corporate level and allocated to Basic via the allocation process (standard allocators for normal operations and by project for improvement initiatives based on purpose of

project). The costs are then further allocated to the cost categories of claims, operating, and road safety. As a result detailed breakdown by cost category shows an allocation of an allocation and is not comparable year over year. The key comparison year over year is outlined in Volume II Expenses – Appendix 1.”

- c) Please refer to Volume II Expenses, Expense Overview (page 5).
- d) Please refer to Volume II Expenses, Expense Overview (page 5).
- e) The FTE counts for the Basic line of business are not available as the Corporation does not allocate FTE counts. The Corporation only provides FTE counts for corporate normal operating and improvement initiatives which can be found in PUB (MPI) 2 – 23.



**PUB (MPI) 2-28****Reference: PUB/MPI 1-85 (b) and (c)**

- a) Please explain how criteria that vary from one rating year to the next can be considered to be “predictable and clear”?
- b) If the near future unfolds as forecasted in the current GRA, would the Corporation anticipate filing for an increase or no change to the currently proposed RSR Rebuilding Fee of 1% in the next GRA, and why?

**RESPONSE:**

- a) The response is provided on the basis that the rates are to be “predictable and stable”, not “predictable and clear” as per the question. In making this assumption, this places it more in line with the testimony of Mr. Guimond.

The Corporation considers it completely compatible that the rates can be predictable and stable, even though the criteria for establishing the RSR Rebuilding Fee can vary from year to year. The RSR Rebuilding Fee is in addition to the rate change requested and at a minimum the amount of the rate increase or decrease would be viewed in forming the amount of the RSR Rebuilding Fee sought. In fact, by having criteria that varies annually, rate stability and predictability could be enhanced.

- b) In the current GRA the forecast net loss is \$38 M in 2015 with a Basic RSR of \$61.2 M. The Basic DCAT minimum target is \$194 M, which creates a deficiency of \$132.8 M. The amount of money to be transferred to the Basic RSR from the excess retained earnings in SRE and Extension is yet to be determined but will be based upon the methodology and minimum target in the Order forthcoming from this application. There may still be a deficiency in the RSR even after this transfer of excess retained earnings. The DCAT will be prepared again next year and will indicate a new minimum level for the RSR. If next year there is a deficiency in the RSR below the DCAT indicated minimum, then depending upon the rate increase required, the Corporation would likely seek a continuation of the RSR

Rebuilding Fee, with an amount yet to be determined. At this point of time, the Corporation has not determined the rate application for the 2016 GRA.



**PUB (MPI) 2-29**

**Reference: PUB/MPI 1-90 (b)**

Please advise of why there is no material increase to the overall Road Safety budget being forecast through the outlook period, either for existing or new programs.

**RESPONSE:**

The Road Safety budget for existing programs has been increased for inflation similar to other expenditure areas in the Corporation. Enhancement to the High School Driver Education program is budgeted within the improvement initiatives budget.



**PUB (MPI) 2-30**

**Reference: PUB/MPI 1-90 (d)**

- a) With respect to Occupant Safety Strategies and Motorcycle Safety Education, please advise of why there have been reductions in advertising costs; has the Corporation engaged in less or different advertising or have costs reduced for some other reason?
- b) Are there any reasons other than reductions in advertising costs that have led to reductions in spending in 2013/14 for Occupant Safety Strategies and Motorcycle Safety Education?
- c) Please explain the reasons for reductions in spending in 2013/14 for Program Evaluation.

**RESPONSE:**

- a) In 2013/14, the Corporation took a more targeted approach to advertising which resulted in a cost saving in media buys. Specifically, advertising related to occupant safety (i.e. seat belt use) was more targeted to rural communities where the seatbelt wearing rate is generally lower than in urban areas like the City of Winnipeg. Similarly, motorcycle safety advertising was targeted primarily to the beginning of the 2013/14 riding season to remind motorists of motorcyclists sharing the road, with supplemental messaging through the remainder of the riding season.
- b) There were no other material changes to road safety programs and initiatives for occupant safety or motorcycle safety education in 2013/14 compared to 2012/13.
- c) Decreases in program evaluation expenses in 2013/14 related primarily to completion of the Formative and Summative evaluations of the High School Driver Education program.

**PUB (MPI) 2-31****Reference: PUB/MPI 1-106**

This information request did not address the matter of why a 100% MCT ratio (vs. some other level of MCT ratio) was being proposed. The cited statements could be equally true of many choices of MCT ratio. The choice of a 100% MCT ratio to define an upper Total Equity target needs to be defended to assist the PUB in its assessment of the Corporation's proposal.

**RESPONSE:**

The Corporation's rationale is as described in Volume II, Rate Stabilization Reserve, section RSR.1, pages 9 and 10 and is repeated in PUB (MPI) 1-106. The Corporation did not conduct a detailed analysis of OSFI's Minimum Capital Test to somehow *prove* that 100% MCT is the optimal upper target for the Basic Compulsory program.

The question states that the "cited statements could be equally true of many choices of MCT ratio". Given that a 100% MCT score is the minimum required capital produced by the MCT test, it is unclear to the Corporation what meaning an MCT target of less than 100% would have or how the test could be modified such that the Corporation could defend using an MCT target of less than 100%. Private insurers have a supervisory minimum MCT of 150%, while both SGI and ICBC have targets at or in excess of 100% MCT. The intent of the Corporation's 100% MCT upper capital target was to provide a range for which to stabilize rates along with an objective measure of risk that was independent of the DCAT-based minimum capital target. The purpose of the RSR is to protect motorists from rate increases made necessary by unexpected losses arising from non-recurring events or factors. This is critical to ensure rate stability and predictability and not have to increase rates for Manitoba rate payers when there is an unexpected loss.

**PUB (MPI) 2-32**

**Reference: PUB/MPI 1-107**

Given that the “restated base forecast in the DCAT is the best estimate of projected operations”, please discuss the implications of the change in average forecasted net income over 2015/16 and 2016/17 (from about \$5.8 million to about \$9.6 million) for the Corporation’s proposed rate level change (before RSR Rebuilding Fee) of +2.4%.

**RESPONSE:**

The Corporation believes that the GRA forecast excluding changes to the premium deficiency and DPAC write down (i.e. the forecast presented in the Volume II Pro Forma section of the 2015 GRA) should be used for rate setting purposes. As stated in PUB (MPI) 1-107:

“This forecasting assumption also ensures that net income in the rating period is not impacted by changes to the premium deficiency / DPAC calculation, which in the Corporation’s opinion, would not be appropriate to include in the calculation of break-even rates. For example, an assumed \$10 million recovery in deficient premiums in the rating period should not result in the Corporation asking for a rate decrease to offset this \$10 million recovery in deficient premiums (again resulting in deficient premiums – i.e. a circular calculation).”

**PUB (MPI) 2-33**

**Reference: PUB/MPI 1-111**

Please provide the Chief Actuary's supporting rationale for his belief that the assumption that no rate change after 2014/15 is a reasonable assumption for DCAT purposes.

**RESPONSE:**

The question as stated is not correct. The Chief Actuary has assumed that the proposed 2015/16 rate change of 2.4% and the proposed 2015/16 RSR rebuilding fee of 1.0% will be approved by the Public Utilities Board. The Chief Actuary has also assumed that the 1.0% RSR rebuilding fee will remain in place for 2016/17 through 2018/19 in light of the projected total equity balances.

As stated in PUB (MPI) 1-111, the average net income of the Basic program in 2016/17 through 2018/19 (net of the assumed 1.0% RSR rebuilding fee) is approximately \$13 million per year, which could (in theory) equate to a 1.5% rate decrease in 2016/17 if all forecasting assumptions are fully realized. However, there is significant regulatory and economic risk around these assumptions. For example, the PUB ordered a rate change that was less than the Corporation's proposal in two of the last three rate applications. There is also still debate around the appropriate minimum capital requirements of the Basic program and how the Corporation should be rebuilding the Rate Stabilization Reserve. Finally, the Corporation has significant concerns about the risks stemming from the interest rate forecast. As per Dan Guimond's pre-file testimony, page 11, "if interest rates don't rise, as the banks are forecasting, it will result in a minimum shortfall in premium revenue of 1.9% or almost \$16 million".

Regardless of the assumptions for rate changes and RSR rebuilding fees, the Corporation's base forecast projects that Total Equity balance will increase to be in excess of the current DCAT-based minimum capital target by the end of 2017/18. The Chief Actuary believes that this forecast reflects a reasonable base-case business plan for the Basic program, noting the risks stated above.

**PUB (MPI) 2-34**

**Reference: PUB/MPI 1-112**

Under what conditions would the Corporation give consideration to increasing the RSR Rebuilding Fee in 2016/17?

**RESPONSE:**

See PUB (MPI) 2-28 (b).

Additionally, if the net losses were substantial in 2015 and the RSR deficient from the DCAT minimum, even after the transfers of the excess retained earnings, then the RSR Re-Building Fee would likely increase beyond 1%; however, the rate increase amount sought would have to be considered too. There are so many other different circumstances, projections, financial implications and considerations that would factor into the decision that make it difficult to respond.



**PUB (MPI) 2-35**

**Reference: PUB/MPI 1-115**

- a) Please confirm that the “1 Year Government of Canada Marketable” data represents the 12 month movement in Government of Canada 10 Year Bond Yields.
- b) Please provide a table indicating the Government of Canada Bond Yields by month since 1956.

**RESPONSE:**

- a) The 1 Year Government of Canada Marketable data represents the change in the yield of the long-term bond yield series from the Bank of Canada over rolling 12 month periods. The 2 Year Government of Canada Marketable data represents the change in the yield of the long-term bond yield series from the Bank of Canada over rolling 24 month periods (same logic applies to the 3 year and 4 year data series). The Bank of Canada calls this series “Government of Canada marketable bonds – average yields – over 10 years”, which is different than the yield on the Government of Canada 10 year bond. The rationale for using the Bank of Canada long-term bond yields was explained on page 42 of the DCAT report.
- b) Please find attached the requested table.

	Government of Canada marketable bonds - average yield over 10 years		Government of Canada marketable bonds - average yield over 10 years
1/31/1956	3.30%	8/31/1959	5.30%
2/28/1956	3.28%	9/30/1959	5.49%
3/29/1956	3.41%	10/30/1959	5.30%
4/30/1956	3.54%	11/30/1959	5.30%
5/31/1956	3.52%	12/31/1959	5.45%
6/28/1956	3.40%	1/29/1960	5.56%
7/31/1956	3.60%	2/29/1960	5.42%
8/30/1956	3.79%	3/31/1960	5.31%
9/30/1956	3.88%	4/29/1960	5.30%
10/31/1956	3.88%	5/31/1960	5.20%
11/29/1956	3.93%	6/30/1960	5.02%
12/31/1956	3.97%	7/29/1960	5.10%
1/31/1957	4.14%	8/31/1960	4.81%
2/28/1957	3.98%	9/30/1960	4.80%
3/29/1957	4.00%	10/31/1960	5.07%
4/30/1957	4.06%	11/30/1960	5.32%
5/31/1957	4.24%	12/30/1960	5.31%
6/28/1957	4.22%	1/31/1961	5.24%
7/31/1957	4.27%	2/28/1961	5.08%
8/30/1957	4.34%	3/31/1961	5.18%
9/30/1957	4.31%	4/28/1961	5.22%
10/31/1957	4.10%	5/31/1961	5.17%
11/29/1957	3.85%	6/30/1961	4.95%
12/31/1957	3.82%	7/31/1961	4.96%
1/31/1958	3.91%	8/31/1961	4.98%
2/28/1958	3.99%	9/29/1961	5.01%
3/31/1958	3.99%	10/31/1961	4.93%
4/30/1958	3.97%	11/30/1961	4.90%
5/30/1958	3.84%	12/29/1961	4.93%
6/30/1958	4.01%	1/31/1962	4.97%
7/31/1958	4.08%	2/28/1962	4.94%
8/29/1958	4.14%	3/30/1962	4.86%
9/30/1958	4.29%	4/30/1962	4.79%
10/31/1958	4.38%	5/31/1962	4.99%
11/28/1958	4.56%	6/29/1962	5.30%
12/31/1958	4.63%	7/31/1962	5.44%
1/30/1959	4.65%	8/31/1962	5.40%
2/27/1959	4.73%	9/28/1962	5.38%
3/31/1959	4.84%	10/31/1962	5.11%
4/30/1959	4.87%	11/30/1962	5.08%
5/29/1959	4.93%	12/31/1962	5.10%
6/30/1959	5.03%	1/31/1963	5.05%
7/31/1959	5.01%	2/28/1963	5.11%



Government of Canada marketable bonds - average yield - over 10 years		Government of Canada marketable bonds - average yield - over 10 years	
3/29/1963	5.09%	10/31/1966	5.71%
4/30/1963	5.00%	11/30/1966	5.91%
5/31/1963	4.94%	12/30/1966	5.76%
6/28/1963	4.96%	1/31/1967	5.60%
7/31/1963	5.12%	2/28/1967	5.64%
8/30/1963	5.28%	3/31/1967	5.48%
9/30/1963	5.11%	4/28/1967	5.56%
10/31/1963	5.09%	5/31/1967	5.72%
11/29/1963	5.15%	6/30/1967	5.87%
12/31/1963	5.18%	7/31/1967	5.88%
1/31/1964	5.17%	8/31/1967	5.99%
2/28/1964	5.17%	9/29/1967	6.19%
3/31/1964	5.25%	10/31/1967	6.36%
4/30/1964	5.24%	11/30/1967	6.41%
5/29/1964	5.21%	12/29/1967	6.54%
6/30/1964	5.21%	1/31/1968	6.54%
7/31/1964	5.22%	2/29/1968	6.72%
8/31/1964	5.23%	3/29/1968	6.91%
9/30/1964	5.21%	4/30/1968	6.62%
10/30/1964	5.16%	5/31/1968	6.97%
11/30/1964	5.11%	6/28/1968	6.62%
12/31/1964	5.03%	7/31/1968	6.49%
1/29/1965	4.96%	8/30/1968	6.43%
2/26/1965	5.03%	9/30/1968	6.60%
3/31/1965	5.06%	10/31/1968	6.83%
4/30/1965	5.05%	11/29/1968	6.95%
5/31/1965	5.12%	12/31/1968	7.30%
6/30/1965	5.16%	1/31/1969	7.16%
7/30/1965	5.28%	2/28/1969	7.20%
8/31/1965	5.35%	3/31/1969	7.22%
9/30/1965	5.32%	4/30/1969	7.29%
10/29/1965	5.37%	5/30/1969	7.48%
11/30/1965	5.40%	6/30/1969	7.50%
12/31/1965	5.40%	7/31/1969	7.52%
1/31/1966	5.41%	8/29/1969	7.53%
2/28/1966	5.61%	9/30/1969	7.81%
3/31/1966	5.58%	10/31/1969	7.82%
4/29/1966	5.60%	11/28/1969	8.15%
5/31/1966	5.61%	12/31/1969	8.33%
6/30/1966	5.66%	1/30/1970	8.31%
7/29/1966	5.74%	2/27/1970	8.13%
8/31/1966	5.94%	3/31/1970	7.93%
9/30/1966	5.75%	4/30/1970	8.04%



	Government of Canada marketable bonds - average yield - over 10 years		Government of Canada marketable bonds - average yield - over 10 years
5/29/1970	8.23%	12/31/1973	7.70%
6/30/1970	8.09%	1/31/1974	7.75%
7/31/1970	7.91%	2/28/1974	7.74%
8/31/1970	8.00%	3/29/1974	8.19%
9/30/1970	7.88%	4/30/1974	8.81%
10/30/1970	7.94%	5/31/1974	8.91%
11/30/1970	7.50%	6/28/1974	9.46%
12/31/1970	6.99%	7/31/1974	9.63%
1/29/1971	6.67%	8/30/1974	9.84%
2/26/1971	6.85%	9/30/1974	9.67%
3/31/1971	6.76%	10/31/1974	9.20%
4/30/1971	6.97%	11/29/1974	8.87%
5/31/1971	7.38%	12/31/1974	8.77%
6/30/1971	7.30%	1/31/1975	8.30%
7/30/1971	7.49%	2/28/1975	8.17%
8/31/1971	7.15%	3/31/1975	8.47%
9/30/1971	6.97%	4/30/1975	9.04%
10/29/1971	6.71%	5/30/1975	8.71%
11/30/1971	6.56%	6/30/1975	8.88%
12/31/1971	6.56%	7/31/1975	9.34%
1/31/1972	6.73%	8/29/1975	9.39%
2/29/1972	6.90%	9/30/1975	9.72%
3/31/1972	7.24%	10/31/1975	9.33%
4/28/1972	7.27%	11/28/1975	9.58%
5/31/1972	7.34%	12/31/1975	9.49%
6/30/1972	7.45%	1/30/1976	9.29%
7/31/1972	7.49%	2/27/1976	9.27%
8/31/1972	7.44%	3/31/1976	9.39%
9/29/1972	7.46%	4/30/1976	9.34%
10/31/1972	7.26%	5/31/1976	9.32%
11/30/1972	7.08%	6/30/1976	9.35%
12/29/1972	7.12%	7/30/1976	9.37%
1/31/1973	7.16%	8/31/1976	9.24%
2/28/1973	7.21%	9/30/1976	9.16%
3/30/1973	7.30%	10/29/1976	9.09%
4/30/1973	7.39%	11/30/1976	8.82%
5/31/1973	7.72%	12/31/1976	8.47%
6/29/1973	7.74%	1/31/1977	8.52%
7/31/1973	7.73%	2/28/1977	8.62%
8/31/1973	7.82%	3/31/1977	8.83%
9/28/1973	7.72%	4/29/1977	8.85%
10/31/1973	7.60%	5/31/1977	8.77%
11/30/1973	7.64%	6/30/1977	8.72%



	Government of Canada marketable bonds - average yield over 10 years		Government of Canada marketable bonds - average yield over 10 years
7/29/1977	8.70%	2/27/1981	13.38%
8/31/1977	8.57%	3/31/1981	13.48%
9/30/1977	8.61%	4/30/1981	15.07%
10/31/1977	8.70%	5/29/1981	14.96%
11/30/1977	8.74%	6/30/1981	15.03%
12/30/1977	8.77%	7/31/1981	17.07%
1/31/1978	9.06%	8/31/1981	16.77%
2/28/1978	9.15%	9/30/1981	17.66%
3/31/1978	9.17%	10/30/1981	16.66%
4/28/1978	9.22%	11/30/1981	14.32%
5/31/1978	9.23%	12/31/1981	15.27%
6/30/1978	9.23%	1/29/1982	15.94%
7/31/1978	9.17%	2/26/1982	15.01%
8/31/1978	9.16%	3/31/1982	15.06%
9/29/1978	9.15%	4/30/1982	14.75%
10/31/1978	9.48%	5/31/1982	14.72%
11/30/1978	9.54%	6/30/1982	16.03%
12/29/1978	9.68%	7/30/1982	15.62%
1/31/1979	9.82%	8/31/1982	13.96%
2/28/1979	9.97%	9/30/1982	13.48%
3/30/1979	9.91%	10/29/1982	12.63%
4/30/1979	9.66%	11/30/1982	12.18%
5/31/1979	9.68%	12/31/1982	11.69%
6/29/1979	9.73%	1/31/1983	12.28%
7/31/1979	9.84%	2/28/1983	11.80%
8/31/1979	10.15%	3/31/1983	11.70%
9/28/1979	10.38%	4/29/1983	11.18%
10/31/1979	11.16%	5/31/1983	11.30%
11/30/1979	10.94%	6/30/1983	11.56%
12/31/1979	11.32%	7/29/1983	12.03%
1/31/1980	12.13%	8/31/1983	12.34%
2/29/1980	12.91%	9/30/1983	11.76%
3/31/1980	13.45%	10/31/1983	11.73%
4/30/1980	12.01%	11/30/1983	11.80%
5/30/1980	11.42%	12/30/1983	12.02%
6/30/1980	11.29%	1/31/1984	11.92%
7/31/1980	12.32%	2/29/1984	12.40%
8/29/1980	12.40%	3/30/1984	13.06%
9/30/1980	12.98%	4/30/1984	13.31%
10/31/1980	13.22%	5/31/1984	13.93%
11/28/1980	13.01%	6/29/1984	13.81%
12/31/1980	12.67%	7/31/1984	13.41%
1/30/1981	12.96%	8/31/1984	12.89%



	Government of Canada marketable bonds - average yield - over 10 years		Government of Canada marketable bonds - average yield - over 10 years
9/28/1984	12.63%	4/29/1988	10.36%
10/31/1984	12.18%	5/31/1988	10.38%
11/30/1984	11.81%	6/30/1988	10.13%
12/31/1984	11.66%	7/29/1988	10.42%
1/31/1985	11.38%	8/31/1988	10.65%
2/28/1985	12.30%	9/30/1988	10.46%
3/29/1985	11.93%	10/31/1988	10.13%
4/30/1985	11.50%	11/30/1988	10.32%
5/31/1985	10.76%	12/30/1988	10.36%
6/28/1985	10.88%	1/31/1989	10.18%
7/31/1985	10.91%	2/28/1989	10.55%
8/30/1985	10.79%	3/31/1989	10.49%
9/30/1985	10.96%	4/28/1989	10.19%
10/31/1985	10.72%	5/31/1989	9.85%
11/29/1985	10.34%	6/30/1989	9.60%
12/31/1985	10.06%	7/31/1989	9.62%
1/31/1986	10.49%	8/31/1989	9.62%
2/28/1986	9.96%	9/29/1989	9.91%
3/31/1986	9.54%	10/31/1989	9.54%
4/30/1986	9.32%	11/30/1989	9.80%
5/30/1986	9.52%	12/29/1989	9.69%
6/30/1986	9.42%	1/31/1990	10.04%
7/31/1986	9.36%	2/28/1990	10.64%
8/29/1986	9.16%	3/30/1990	10.91%
9/30/1986	9.45%	4/30/1990	11.54%
10/31/1986	9.53%	5/31/1990	10.86%
11/28/1986	9.26%	6/29/1990	10.72%
12/31/1986	9.23%	7/31/1990	10.78%
1/30/1987	8.94%	8/31/1990	10.83%
2/27/1987	9.10%	9/28/1990	11.54%
3/31/1987	8.98%	10/31/1990	11.15%
4/30/1987	9.82%	11/30/1990	10.70%
5/29/1987	9.92%	12/31/1990	10.51%
6/30/1987	9.78%	1/31/1991	10.22%
7/31/1987	10.23%	2/28/1991	9.89%
8/31/1987	10.44%	3/29/1991	9.88%
9/30/1987	11.14%	4/30/1991	9.91%
10/30/1987	10.21%	5/31/1991	9.91%
11/30/1987	10.50%	6/28/1991	10.36%
12/31/1987	10.34%	7/31/1991	10.17%
1/29/1988	9.74%	8/30/1991	9.97%
2/29/1988	9.61%	9/30/1991	9.59%
3/31/1988	10.13%	10/31/1991	9.12%



	Government of Canada marketable bonds - average yield - over 10 years		Government of Canada marketable bonds - average yield - over 10 years
11/29/1991	9.18%	6/30/1995	8.02%
12/31/1991	8.97%	7/31/1995	8.50%
1/31/1992	8.92%	8/31/1995	8.24%
2/28/1992	8.97%	9/29/1995	8.11%
3/31/1992	9.28%	10/31/1995	8.11%
4/30/1992	9.51%	11/30/1995	7.44%
5/29/1992	9.17%	12/29/1995	7.43%
6/30/1992	8.87%	1/31/1996	7.35%
7/31/1992	8.21%	2/29/1996	7.84%
8/31/1992	8.19%	3/29/1996	7.94%
9/30/1992	8.53%	4/30/1996	8.07%
10/30/1992	8.33%	5/31/1996	7.92%
11/30/1992	8.66%	6/28/1996	7.98%
12/31/1992	8.54%	7/31/1996	7.86%
1/29/1993	8.67%	8/30/1996	7.60%
2/26/1993	8.19%	9/30/1996	7.48%
3/31/1993	8.27%	10/31/1996	6.81%
4/30/1993	8.27%	11/29/1996	6.42%
5/31/1993	8.12%	12/31/1996	6.77%
6/30/1993	7.96%	1/31/1997	7.07%
7/30/1993	7.79%	2/28/1997	6.78%
8/31/1993	7.40%	3/31/1997	6.97%
9/30/1993	7.55%	4/30/1997	6.97%
10/29/1993	7.35%	5/30/1997	6.95%
11/30/1993	7.45%	6/30/1997	6.49%
12/31/1993	7.12%	7/31/1997	6.11%
1/31/1994	6.86%	8/29/1997	6.38%
2/28/1994	7.33%	9/30/1997	5.99%
3/31/1994	8.25%	10/31/1997	5.80%
4/29/1994	8.18%	11/28/1997	5.78%
5/31/1994	8.55%	12/31/1997	5.80%
6/30/1994	9.29%	1/30/1998	5.63%
7/29/1994	9.50%	2/27/1998	5.64%
8/31/1994	8.89%	3/31/1998	5.54%
9/30/1994	9.04%	4/30/1998	5.64%
10/31/1994	9.29%	5/29/1998	5.49%
11/30/1994	9.24%	6/30/1998	5.45%
12/30/1994	9.16%	7/31/1998	5.56%
1/31/1995	9.41%	8/31/1998	5.78%
2/28/1995	8.86%	9/30/1998	5.15%
3/31/1995	8.70%	10/30/1998	5.27%
4/28/1995	8.44%	11/30/1998	5.35%
5/31/1995	8.11%	12/31/1998	5.08%



Government of Canada marketable bonds - average yield over 10 years		Government of Canada marketable bonds - average yield over 10 years	
1/29/1999	5.08%	8/30/2002	5.55%
2/26/1999	5.37%	9/30/2002	5.38%
3/31/1999	5.23%	10/31/2002	5.61%
4/30/1999	5.34%	11/29/2002	5.55%
5/31/1999	5.54%	12/31/2002	5.37%
6/30/1999	5.63%	1/31/2003	5.45%
7/30/1999	5.74%	2/28/2003	5.39%
8/31/1999	5.69%	3/31/2003	5.52%
9/30/1999	5.92%	4/30/2003	5.34%
10/29/1999	6.38%	5/30/2003	5.01%
11/30/1999	6.12%	6/30/2003	4.98%
12/31/1999	6.25%	7/31/2003	5.35%
1/31/2000	6.36%	8/29/2003	5.40%
2/29/2000	5.98%	9/30/2003	5.19%
3/31/2000	5.96%	10/31/2003	5.33%
4/28/2000	6.03%	11/28/2003	5.24%
5/31/2000	5.94%	12/31/2003	5.14%
6/30/2000	5.90%	1/30/2004	5.15%
7/31/2000	5.83%	2/27/2004	4.98%
8/31/2000	5.79%	3/31/2004	4.94%
9/29/2000	5.83%	4/30/2004	5.23%
10/31/2000	5.79%	5/31/2004	5.23%
11/30/2000	5.63%	6/30/2004	5.30%
12/29/2000	5.59%	7/30/2004	5.29%
1/31/2001	5.71%	8/31/2004	5.14%
2/28/2001	5.63%	9/30/2004	5.02%
3/30/2001	5.74%	10/29/2004	4.96%
4/30/2001	5.94%	11/30/2004	4.87%
5/31/2001	6.08%	12/31/2004	4.86%
6/29/2001	5.97%	1/31/2005	4.69%
7/31/2001	6.01%	2/28/2005	4.71%
8/31/2001	5.72%	3/31/2005	4.75%
9/28/2001	5.86%	4/29/2005	4.55%
10/31/2001	5.32%	5/31/2005	4.41%
11/30/2001	5.66%	6/30/2005	4.27%
12/31/2001	5.75%	7/29/2005	4.31%
1/31/2002	5.72%	8/31/2005	4.11%
2/28/2002	5.68%	9/30/2005	4.21%
3/29/2002	6.00%	10/31/2005	4.38%
4/30/2002	5.89%	11/30/2005	4.20%
5/31/2002	5.76%	12/30/2005	4.04%
6/28/2002	5.73%	1/31/2006	4.22%
7/31/2002	5.70%	2/28/2006	4.17%

Government of Canada marketable bonds - average yield over 10 years		Government of Canada marketable bonds - average yield over 10 years	
3/31/2006	4.26%	10/30/2009	3.98%
4/28/2006	4.59%	11/30/2009	3.84%
5/31/2006	4.51%	12/31/2009	4.08%
6/30/2006	4.69%	1/29/2010	3.92%
7/31/2006	4.46%	2/26/2010	3.98%
8/31/2006	4.22%	3/31/2010	3.99%
9/29/2006	4.08%	4/30/2010	3.99%
10/31/2006	4.25%	5/31/2010	3.58%
11/30/2006	4.03%	6/30/2010	3.59%
12/29/2006	4.11%	7/30/2010	3.71%
1/31/2007	4.23%	8/31/2010	3.39%
2/28/2007	4.10%	9/30/2010	3.25%
3/30/2007	4.21%	10/29/2010	3.38%
4/30/2007	4.21%	11/30/2010	3.60%
5/31/2007	4.43%	12/31/2010	3.51%
6/29/2007	4.59%	1/31/2011	3.71%
7/31/2007	4.52%	2/28/2011	3.69%
8/31/2007	4.44%	3/31/2011	3.66%
9/28/2007	4.50%	4/29/2011	3.67%
10/31/2007	4.39%	5/31/2011	3.41%
11/30/2007	4.22%	6/30/2011	3.47%
12/31/2007	4.18%	7/29/2011	3.28%
1/31/2008	4.17%	8/31/2011	3.00%
2/29/2008	4.14%	9/30/2011	2.74%
3/31/2008	3.91%	10/31/2011	2.91%
4/30/2008	4.02%	11/30/2011	2.61%
5/30/2008	4.07%	12/30/2011	2.42%
6/30/2008	4.07%	1/31/2012	2.55%
7/31/2008	4.18%	2/29/2012	2.48%
8/29/2008	4.02%	3/30/2012	2.56%
9/30/2008	4.14%	4/30/2012	2.55%
10/31/2008	4.31%	5/31/2012	2.20%
11/28/2008	4.00%	6/29/2012	2.24%
12/31/2008	3.45%	7/31/2012	2.14%
1/30/2009	3.74%	8/31/2012	2.28%
2/27/2009	3.70%	9/28/2012	2.24%
3/31/2009	3.63%	10/31/2012	2.27%
4/30/2009	3.72%	11/30/2012	2.20%
5/29/2009	4.11%	12/31/2012	2.27%
6/30/2009	3.96%	1/31/2013	2.47%
7/31/2009	4.10%	2/28/2013	2.39%
8/31/2009	3.96%	3/31/2013	2.34%
9/30/2009	3.87%	4/30/2013	2.19%

<b>Government of Canada marketable bonds - average yield over 10 years</b>		<b>Government of Canada marketable bonds - average yield over 10 years</b>	
5/31/2013	2.48%	11/29/2013	3.01%
6/28/2013	2.90%	12/31/2013	3.09%
7/31/2013	2.88%	1/31/2014	2.80%
8/30/2013	3.00%	2/28/2014	2.80%
9/30/2013	3.00%	3/31/2014	2.82%
10/31/2013	2.87%	4/30/2014	2.76%

**PUB (MPI) 2-36****Reference: PUB/MPI 1-117**

The reference cited in response to this information request appears to address only the analysis of Equity Returns in isolation. Please provide the supporting analysis of "Correlation between Equity Returns and Interest Rate Movement".

**RESPONSE:**

The correlations between equity returns and interest rates are shown below.

**Correlation Coefficient Between**  
Government of Canada marketable bonds  
and S&P Composite TR Index

Period	1 year	2 years	3 years	4 years
1956 - Present	(0.12)	0.03	0.04	0.05
2004 - Present	0.28	0.09	(0.23)	(0.13)





**PUB (MPI) 2-37**

**Reference: PUB/MPI 1-121**

On which basis of MCT computation does the Corporation propose the upper Total Equity target MCT ratio will be defined; as computed for recent historical ratios, or as forecasted in the DCAT?

**RESPONSE:**

The Corporation proposes using the computed MCT ratio based on the most recent fiscal year end for use in establishing the upper capital target.

**PUB (MPI) 2-38**

**Reference: Financial Model Scenarios**

- a) Please file the model scenarios printout, indicating the formulae represented in each cell. Please provide this level of detail for the following sheets:  
InvestAssumQu, InvestModelQu and DPAC for the Base Scenario.
- b) Please confirm that there are no changes in the formulae in the Alternative Scenarios. If not, please explain.

**RESPONSE:**

- a) The financial model is proprietary to Manitoba Public Insurance. In order to provide comfort to the PUB and interveners as to its accuracy we have provided the instruction manual the testing results, over 2,000 pages of print outs of the various DCAT scenarios as well as conducted a thorough walk through of the entire model at the DCAT technical conference.
- b) Confirmed

**PUB (MPI) 2-39**

**Reference: Financial Model 4-Year Interest Rate Decline – Investment Assumptions Quarterly US Equity Returns: line 153**

- a) Please explain why the Corporation assumed no change in exchange rate between the Canadian and US dollars under the interest rate decline scenario.
- b) Please indicate whether the Corporation has undertaken an analysis of currency risk. If so, please file that analysis. If not, how is currency risk factored into U.S. equity returns?
- c) Please explain why the US/CAD exchange rate is 1.0 and discuss the merits of utilizing Bank forecasts of US/CAD exchange rates in the Financial Model.
- d) Please explain how the exchange rate is influenced by changes in interest rates.

**RESPONSE:**

- a) This question refers to interest rate parity theory. It was assumed that the spread between Canadian and U.S. interest rates (interest differential) remained the same in the DCAT scenarios over the forecast period. Therefore, there would be no impact to the USD/CAD exchange rate.

The CAD/USD exchange rate is affected by interest rates as well as other factors such as GDP growth, employment and supply and demand for the Canadian dollar.

- b) The Asset Liability Management Study completed in 2008 provided a discussion of currency risk. A copy of the Aon Report was filed with the 2009 Rate Application in Volume III, AI.11.

- c) The exchange rate is unchanged over the entire period because currency movements are not forecasted for rate setting purposes, which is a simplifying assumption. The 1.0 is a dummy variable and is a placeholder within the model since no changes in the exchange rate are forecasted. See line 290 in the Investment Model Quarterly tab (see reference to this question), which shows the exchange rate return to be 0% over the five year forecast.

Forecasting exchange rates accurately is extremely difficult because exchange rates are highly volatile. If the exchange forecast is incorrect, it could have a positive or adverse impact on the investment income forecast. A neutral forecast assumes no change in exchange rates.

- d) Please see the response in a). With respect to the DCAT scenarios, interest rates movements do not impact the CAD/USD exchange rate.

**PUB (MPI) 2-40**

**Reference: Financial Model 4-Year Interest Rate Decline – Investment Assumptions Quarterly Yields on Canadian and US Equities: lines 116, 120, 124, 128, 132, 157, 161, 165, 169, 173, DCAT Report p. 30**

Please reconcile the stated dividend yields on equities per page 30 of the DCAT with those reflected in the financial model.

**RESPONSE:**

On page 30, it states that the dividend yield used in the equity decline scenarios is the same dividend yield as the base forecast. This statement is correct. However, the table directly below this statement was not updated from last year's report. Please see the revised table below, which reconciles with what was provided on page 37 and 41 of the Investment Income document, and reconciles with lines 116 and 157 of the Financial Model 4-Year Interest Rate Decline (Investment Assumptions).

**Dividend Yield (Revised)**

<b>Index</b>	<b>Canadian Equities</b>	<b>U.S Equities</b>
2014/15	2.9%	2.3%
2015/16	3.1%	2.4%
2016/17	3.2%	2.6%
Thereafter	3.2%	2.6%

Refer to line 116 and 157 only for the dividend yield for Canadian and U.S. equity portfolio. Please note that lines 120, 124, 128, 132, 161, 165, 169, 173 provide functionality that is not used in the DCAT scenario. These lines are filled with dummy variables and are not used in any of the DCAT scenarios. The names of these DCAT scenarios are also dummy names (i.e. DCAT 4 Inflation does not exist).

**PUB (MPI) 2-41**

**Reference: Financial Model 4-Year Interest Rate Decline – Interest Rate Floor, InvestAssumQu: lines 25, 27**

- a) Given that interest rates were at 1.68% for one day from 1989 to present, please discuss the reasonableness of assuming total returns on Marketable Bonds of 1.68% for eleven consecutive quarters in this adverse scenario.
  
- b) Please discuss how the interest rate decline assumption interplays with the assumed vehicle upgrade factor.

**RESPONSE:**

- a) As explained in the DCAT report, the floor of 1.68% was selected for the interest rate decline scenario so that the scenario did not produce unreasonable interest rates such as negative nominal rates, as shown in the graph on page 43 of the DCAT report. The scenario represents a 1 in 40 event. Based on historical interest rate changes the probability of interest rates being unchanged or within a range of +/- 50 bps over four years is well within the 1 in 40 probability.
  
- b) The two assumptions are assumed to be independent.

**PUB (MPI) 2-42****Reference: Financial Model Combined Scenario**

Please prepare an alternate Combined Scenario, with a complete set of supporting schedules, addressing only Equity Returns and Claims Incurred.

**RESPONSE:**

The following tables represent 1000 simulations each of 1, 2, 3, and 4 year equity returns and claims incurred. Interest rates were assumed to stay at the forecasted rates.

**Equity Decline and High Loss Ratio Scenario**  
**Retained Earnings (in millions)**

Probability	Return Period	2015/16	2016/17	2017/18	2018/19
1-in-100	1 year + base	\$20	\$11	\$23	\$20
1-in-40	1 year + base	\$32	\$26	\$40	\$39
1-in-20	1 year + base	\$41	\$36	\$53	\$52
1-in-100	2 year + base	(\$4)	(\$48)	(\$13)	(\$2)
1-in-40	2 year + base	\$47	\$29	\$40	\$33
1-in-20	2 year + base	\$47	\$42	\$56	\$52
1-in-100	3 year + base	\$57	\$61	(\$1)	(\$8)
1-in-40	3 year + base	\$89	\$48	\$15	\$16
1-in-20	3 year + base	\$78	\$91	\$18	\$43
1-in-100	4 year	\$45	\$12	(\$28)	(\$20)
1-in-40	4 year	\$92	\$109	\$49	\$31
1-in-20	4 year	\$76	\$38	\$43	\$61
Base		\$80	\$80	\$91	\$131

**Equity Decline and High Loss Ratio Scenario****Total Equity (in millions)**

<b>Probability</b>	<b>Return Period</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>
1-in-100	1 year + base	(\$16)	(\$8)	\$20	\$32
1-in-40	1 year + base	\$14	\$23	\$52	\$66
1-in-20	1 year + base	\$35	\$45	\$75	\$88
1-in-100	2 year + base	\$74	\$23	\$54	\$72
1-in-40	2 year + base	\$64	\$4	\$31	\$41
1-in-20	2 year + base	\$75	\$35	\$64	\$76
1-in-100	3 year + base	\$93	\$68	(\$18)	(\$7)
1-in-40	3 year + base	\$134	\$71	\$19	\$36
1-in-20	3 year + base	\$131	\$130	\$45	\$60
1-in-100	4 year	\$95	\$44	(\$11)	(\$25)
1-in-40	4 year	\$156	\$168	\$75	\$56
1-in-20	4 year	\$142	\$101	\$71	\$91
Base		\$158	\$158	\$177	\$212

Based on the tables above, we selected the 1-in-40 3 year + base. Attached are the exhibits for that scenario without management action.





**Exhibit 1a**  
**Equity Decline and High Loss Ratio Scenario**  
**Statement of Operations**

(C\$ 000s, except where noted)

	<i>For the Years Ended February,</i>							
	<u>2012A</u>	<u>2013A</u>	<u>2014A</u>	<u>2015P</u>	<u>2016P</u>	<u>2017P</u>	<u>2018P</u>	<u>2019P</u>
<b>BASIC</b>								
Motor Vehicles	760,039	722,774	756,642	795,233	859,397	897,828	937,861	979,588
Drivers	26,593	32,692	41,520	46,992	51,284	55,427	59,418	62,982
Reinsurance Ceded	(6,679)	(9,422)	(13,422)	(13,661)	(13,934)	(14,213)	(14,497)	(14,787)
<b>Total Net Premiums Written</b>	<b>779,953</b>	<b>746,044</b>	<b>784,740</b>	<b>828,564</b>	<b>896,747</b>	<b>939,042</b>	<b>982,782</b>	<b>1,027,783</b>
<b>Net Premiums Earned</b>								
Motor Vehicles	748,948	739,654	741,077	769,872	829,240	879,765	919,045	959,977
Drivers	24,037	29,299	37,015	44,330	49,138	53,355	57,422	61,201
Reinsurance Ceded	(11,308)	(12,202)	(13,422)	(13,722)	(13,934)	(14,213)	(14,497)	(14,787)
<b>Total Net Premiums Earned</b>	<b>761,677</b>	<b>756,751</b>	<b>764,670</b>	<b>800,480</b>	<b>864,444</b>	<b>918,908</b>	<b>961,971</b>	<b>1,006,390</b>
Service Fees & Other Revenues	18,736	18,452	20,384	19,799	21,079	22,815	24,671	26,786
<b>Total Earned Revenues</b>	<b>780,413</b>	<b>775,203</b>	<b>785,053</b>	<b>820,279</b>	<b>885,523</b>	<b>941,723</b>	<b>986,641</b>	<b>1,033,176</b>
<b>Net Claims Incurred</b>	<b>612,037</b>	<b>661,288</b>	<b>747,435</b>	<b>614,643</b>	<b>643,695</b>	<b>763,199</b>	<b>796,377</b>	<b>821,725</b>
Claims Expense	109,760	108,587	114,552	116,249	120,481	125,770	127,313	138,577
Road Safety/Loss Prevention	12,982	13,032	12,816	11,350	10,514	10,542	10,606	10,671
<b>Total Claims Costs</b>	<b>734,779</b>	<b>782,907</b>	<b>874,803</b>	<b>742,242</b>	<b>774,689</b>	<b>899,511</b>	<b>934,296</b>	<b>970,973</b>
<b>Expenses</b>								
Operating	57,465	63,758	67,982	73,568	74,791	78,918	81,043	87,450
Commissions	41,034	37,545	32,058	33,496	34,173	35,970	37,450	38,991
Premium Taxes	22,766	23,069	23,343	24,426	26,351	27,994	29,294	30,635
Regulatory/Appeal	3,423	3,392	3,765	3,261	3,314	3,380	3,447	3,516
<b>Total Expenses</b>	<b>124,688</b>	<b>127,764</b>	<b>127,148</b>	<b>134,751</b>	<b>138,630</b>	<b>146,262</b>	<b>151,233</b>	<b>160,592</b>
<b>Underwriting Income (Loss)</b>	<b>(79,054)</b>	<b>(135,467)</b>	<b>(216,898)</b>	<b>(56,715)</b>	<b>(27,796)</b>	<b>(104,050)</b>	<b>(98,888)</b>	<b>(98,389)</b>
<b>Investment Income</b>	<b>101,243</b>	<b>72,363</b>	<b>147,735</b>	<b>28,759</b>	<b>45,057</b>	<b>63,024</b>	<b>65,698</b>	<b>98,425</b>
<b>Net Income (Loss) from Operations</b>	<b>22,189</b>	<b>(63,104)</b>	<b>(69,163)</b>	<b>(27,956)</b>	<b>17,261</b>	<b>(41,026)</b>	<b>(33,190)</b>	<b>37</b>
Allocated from Property	89	-	-	-	-	-	-	-
Transfer from Immobilizer Incentive Fund	-	-	-	-	-	-	-	-
<b>Net Income (Loss)</b>	<b>22,278</b>	<b>(63,104)</b>	<b>(69,163)</b>	<b>(27,956)</b>	<b>17,261</b>	<b>(41,026)</b>	<b>(33,190)</b>	<b>37</b>

**Exhibit 1b**  
**Equity Decline and High Loss Ratio Scenario**  
**Statement of Retained Earnings**

(C\$ 000s, except where noted)

For the Years Ended February,

	2012A	2013A	2014A	2015P	2016P	2017P	2018P	2019P
<b>RATE STABILIZATION RESERVE (RSR)</b>								
<b>Basic Insurance Rate Stabilization Reserve</b>								
Beginning Balance	155,700	149,800	99,876	71,920	89,181	48,155	14,965	15,002
Net Income (Loss) from annual operations	-	-	-	-	-	-	-	-
Transfer from Basic Retained Earnings	-	(49,924)	(27,956)	17,261	(41,026)	(33,190)	37	93,218
Transfer to Basic Retained Earnings	(5,900)	-	-	-	-	-	-	-
Ending Balance	149,800	99,876	71,920	89,181	48,155	14,965	15,002	108,220
Minimum RSR based on PUB rules	77,900	77,900	82,300	89,000	93,200	97,600	102,100	106,400
Maximum RSR based on PUB rules	149,800	155,700	164,300	177,700	186,100	194,700	203,600	212,100
MPI RSR Target	200,000	200,000	172,000	172,000	172,000	172,000	172,000	172,000
<b>Retained Earnings</b>								
Beginning Balance	57,983	19,239	-	-	-	-	-	-
Net Income (Loss) from annual operations	13,339	(49,924)	(27,956)	17,261	(41,026)	(33,190)	37	93,218
Retained Earnings Prior to Transfers	71,322	(30,685)	(27,956)	17,261	(41,026)	(33,190)	37	93,218
Transfer to Rate Stabilization Reserve	-	49,924	27,956	(17,261)	41,026	33,190	(37)	(93,218)
Transfer from Rate Stabilization Reserve	5,900	-	-	-	-	-	-	-
Transfer from Immobilizer Incentive Fund	-	-	-	-	-	-	-	-
Transfer (to) from IT Optimization Fund	-	-	-	-	-	-	-	-
Premium Rebate	-	-	-	-	-	-	-	-
Transition to IFRS Mar 1/10	-	-	-	-	-	-	-	-
Balance of Fund	19,239	-	-	-	-	-	-	-
<b>IT Optimization Fund</b>								
Beginning Balance	-	65,000	-	-	-	-	-	-
Transfer to Basic Retained Earnings	-	-	-	-	-	-	-	-
Balance of Fund	-	-	-	-	-	-	-	-
<b>Total Basic Retained Earnings</b>	<b>\$ 169,039</b>	<b>\$ 99,876</b>	<b>\$ 71,920</b>	<b>\$ 89,181</b>	<b>\$ 48,155</b>	<b>\$ 14,965</b>	<b>\$ 15,002</b>	<b>\$ 108,220</b>

**Exhibit 1c**  
**Equity Decline and High Loss Ratio Scenario**  
**Balance Sheet**

(C\$ 000s, except where noted)

	<i>For the Years Ended February,</i>							
	<u>2012A</u>	<u>2013A</u>	<u>2014A</u>	<u>2015P</u>	<u>2016P</u>	<u>2017P</u>	<u>2018P</u>	<u>2019P</u>
<b>BASIC</b>								
<b>Assets</b>								
Cash and investments	1,308,214	1,298,217	1,424,341	1,319,679	1,294,671	1,304,151	1,308,739	1,356,424
Equity investments	424,986	473,796	600,483	620,566	665,361	668,684	672,515	734,214
Investment property	161,186	175,142	32,226	31,222	31,040	30,729	30,388	30,210
Due from other insurance companies	1,956	945	1,755	-	-	-	-	-
Accounts receivable	222,487	232,595	235,616	249,289	266,732	277,983	289,586	301,525
Prepaid expenses	699	716	731	568	568	568	568	568
Deferred policy acquisition costs	22,958	3,884	-	-	-	-	-	-
Reinsurers' share of unearned premiums	2,779	-	-	-	-	-	-	-
Reinsurers' share of unearned claims	23,782	26,130	17,625	-	-	-	-	-
Property and equipment	85,275	87,709	80,108	85,033	85,517	83,746	82,549	80,948
Deferred development costs	33,736	40,884	54,685	70,701	81,714	86,063	90,579	77,606
	<u>2,288,058</u>	<u>2,340,018</u>	<u>2,447,570</u>	<u>2,377,059</u>	<u>2,425,602</u>	<u>2,451,924</u>	<u>2,474,924</u>	<u>2,581,495</u>
<b>Liabilities</b>								
Due to other insurance companies	4,718	1,114	1,213	1,596	1,596	1,596	1,596	1,596
Accounts payable and accrued liabilities	32,891	31,827	35,769	35,673	38,169	39,780	41,440	43,148
Financing lease obligation	3,137	3,091	2,841	3,079	3,020	2,956	2,887	2,814
Unearned premiums and fees	393,285	382,507	402,982	438,580	474,105	497,716	522,278	547,717
Provision for employee current benefits	14,568	14,896	15,389	16,544	17,653	18,782	19,931	21,103
Provision for employee future benefits	207,912	230,117	235,172	249,058	262,114	276,474	291,389	306,958
Provision for unpaid claims	1,368,857	1,450,626	1,584,042	1,489,706	1,494,796	1,543,745	1,576,476	1,622,489
	<u>2,025,368</u>	<u>2,114,178</u>	<u>2,277,408</u>	<u>2,234,238</u>	<u>2,291,453</u>	<u>2,381,049</u>	<u>2,455,997</u>	<u>2,545,826</u>
<b>Equity</b>								
<b>Retained earnings</b>								
Basic Insurance Retained Earnings								
Rate Stabilization Reserve	155,700	149,800	99,876	71,920	89,181	48,155	14,965	15,002
Retained Earnings	57,983	19,239	-	-	-	-	-	-
Information Technology Optimization Fund	-	-	-	-	-	-	-	-
	<u>213,683</u>	<u>169,039</u>	<u>99,876</u>	<u>71,920</u>	<u>89,181</u>	<u>48,155</u>	<u>14,965</u>	<u>15,002</u>
Accumulated Other Comprehensive Income	49,007	56,800	70,284	70,902	44,968	22,720	3,963	20,667
<b>Total Equity</b>	<u>262,690</u>	<u>225,839</u>	<u>170,160</u>	<u>142,822</u>	<u>134,149</u>	<u>70,875</u>	<u>18,928</u>	<u>35,669</u>
	<u>2,288,058</u>	<u>2,340,017</u>	<u>2,447,568</u>	<u>2,377,059</u>	<u>2,425,602</u>	<u>2,451,924</u>	<u>2,474,924</u>	<u>2,581,495</u>

**Exhibit 1d**  
**Equity Decline and High Loss Ratio Scenario**  
**Minimum Capital Test**

		2014 - 2015	2015 - 2016	2016 - 2017	2017 - 2018	2018 - 2019
		Current Year (01)	Forecast Year (02)	Forecast Year (03)	Forecast Year (04)	Forecast Year (05)
<i>(All figures in \$000s)</i>						
<b>Capital Available</b>						
Total Equity less Accumulated Other Comprehensive Income	02	71,920	89,181	48,155	14,965	15,002
Add:						
Subordinated Indebtedness and Redeemable Preferred Share	03					
Accumulated Other Comprehensive Income (Loss) on:						
Available for Sale Equity Securities	04	70,902	44,968	22,720	3,963	20,667
Available for Sale Debt Securities	06					
Foreign Currency (Net of Hedging Activities)	08					
Share of Other Comprehensive Income of non-qualifying Subsidiaries, Associates & Joint Ventures	36					
Revaluation Losses in Excess of Gains on Own Use Properties (Specify)	32 30					
Less:						
Accumulated net after-tax fair value gains (losses) arising from changes in the company's own credit risk	12					
Unrealized Fair Value Gains (Losses) from Own Use Properties at Conversion	15					
Shadow Accounting Impact	16					
Assets with a Capital Requirement of 100% (Specify)	17 13					
IFRS Conversion Phase in	18					
<b>Total Capital Available</b>	19	142,822	134,149	70,875	18,928	35,669
<b>Minimum Capital Required</b>						
Balance Sheet Assets	20	151,420	168,900	177,259	179,753	184,923
Unearned Premiums/Unpaid Claims/Premium Deficiencies	22	174,457	177,802	184,786	190,379	197,786
Catastrophes	24	0	0	0	0	0
Reinsurance Ceded to Unregistered Insurers	26	0	0	0	0	0
Interest Rate Risk	38	18,408	20,773	21,686	22,833	22,142
Foreign Exchange Risk (for future use only)	40					
Structured Settlements, Letters of Credit, Derivatives and Other Exposures (Specify)	28 34	0	0	0	0	0
<b>Minimum Capital Required</b>	29	344,285	367,475	383,731	392,965	404,851
<b>Excess Capital Available over Minimum Capital Required (line 19 minus line 29)</b>	89	(201,464)	(233,326)	(312,856)	(374,037)	(369,182)
<b>Line 19 as a % of line 29</b>	90	41.48%	36.51%	18.47%	4.82%	8.81%
<b>Minimum Gross Capital Level</b>	96	43,751	44,590	46,344	47,748	49,608

**Exhibit 1e**  
**Equity Decline and High Loss Ratio Scenario**  
**Net Claims Incurred Summary**

(C\$ 000s, except where noted)

	<u>2013/14</u>	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>	<u>2017/18</u>	<u>2018/19</u>
<b>Claims Incurred before Financial Provisions</b>						
Weekly Indemnity	\$94,284	\$40,552	\$56,268	\$60,988	\$68,389	\$70,529
ABO - Indexed	\$76,736	\$49,910	\$51,708	\$70,935	\$70,313	\$76,125
ABO - Non-Indexed	\$34,750	\$29,546	\$30,272	\$36,128	\$33,195	\$31,952
PIPP Enhancements	(\$3,292)	\$6,229	\$5,172	\$6,112	\$5,931	\$7,840
Public Liability - BI	\$2,936	\$3,674	\$2,728	\$3,225	\$2,197	\$3,911
Collision	\$354,045	\$346,034	\$368,572	\$412,755	\$438,714	\$440,734
Comprehensive	\$73,957	\$78,595	\$62,792	\$74,965	\$68,452	\$94,137
Property Damage	\$46,091	\$41,554	\$45,681	\$49,106	\$51,590	\$48,495
<b>Total</b>	<b>\$679,507</b>	<b>\$596,094</b>	<b>\$623,194</b>	<b>\$714,213</b>	<b>\$738,780</b>	<b>\$773,724</b>
Unallocated Loss Adjustment Expenses	\$32,294	\$38,547	\$39,343	\$41,229	\$43,180	\$45,186
Change in Internal Loss Adjustment Expense Provision	\$12,579	(\$9,552)	(\$1,876)	\$3,645	\$1,906	\$4,842
Change in Reinsurance Ceded Provision	(\$2,454)	\$0	\$0	\$0	\$0	\$0
Other Financial Adjustments	\$306	\$0	\$0	\$0	\$0	\$0
Change in DPAC / Premium Deficiency Provision	\$25,203	(\$10,448)	(\$16,966)	\$4,113	\$12,511	(\$2,027)
<b>Total Net Claims Incurred</b>	<b>\$747,435</b>	<b>\$614,643</b>	<b>\$643,695</b>	<b>\$763,199</b>	<b>\$796,377</b>	<b>\$821,725</b>



**Exhibit 1f**  
**Equity Decline and High Loss Ratio Scenario**  
**Deferred Policy Acquisition Expenses and Premium Deficiency**

**A. Claims (Including External Adjustment Expense) Data**

	Accident Year										Selected Undisc	Selected Disc
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
1. Ultimate Loss Ratio - Total All Coverage	65.04%	70.98%	71.87%	77.52%	81.98%	79.26%	75.54%	79.89%	79.20%	75.84%		
2. Trend/Rate Adjustment for Fiscal Year												
2013	1.1282	1.1202	1.0983	1.0491	1.0209							
2014		1.0897	1.0883	1.0201	0.9928	1.0008						
2015			1.0217	0.9781	0.9524	0.9808	0.9944					
2016				0.9832	0.9547	0.9604	0.9915	1.0084				
2017					0.9817	0.9808	1.0052	1.0152	1.0141			
2018						0.9988	1.0188	1.0259	1.0218	1.0170		
3. Adjusted Loss Ratio for Fiscal Year [(1) x (2)]												
2013	73.38%	79.49%	78.80%	81.32%	83.70%						79.87%	84.44%
2014		77.33%	76.84%	79.08%	81.38%	79.30%					78.57%	82.10%
2015			73.43%	75.82%	78.08%	76.14%	75.12%				75.89%	78.41%
2016				78.21%	78.27%	78.12%	74.90%	80.38%			78.87%	79.13%
2017					80.48%	77.72%	75.93%	80.90%	80.31%		79.51%	81.33%
2018						79.00%	78.98%	81.75%	80.92%	77.13%	79.02%	80.74%

**B. Actual Data Other Than Losses**

	Fiscal Year									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
4. Net Earned Premium	727,088	749,534	781,877	756,751	764,881	800,480	859,913	910,160	952,838	998,858
5. Operating Expenses as % of Earned Premium	9.82%	9.79%	9.70%	10.82%	10.84%	11.02%	10.31%	10.20%	9.98%	10.20%
6. Maintenance Expense Rate [(5) x (1)]	3.27%	3.28%	3.23%	3.81%	3.81%	3.87%	3.44%	3.40%	3.33%	3.40%
Selected					3.48%	3.83%	3.57%	3.50%	3.39%	3.38%
7. LAER Ratio to Losses - Selected					20.00%	20.00%	20.00%	20.00%	20.00%	20.00%

**C. Equity in Unearned Premium**

8. Net Unearned Premium					389,234	397,256	429,559	449,893	470,505	491,898
9. Additional Expected Cost of Non-Proportional Reinsurance					8,831	8,987	7,108	7,249	7,394	7,541
10. Expected Claims (Including Ext Adj Expenses) [(8) - (9)] x (3)					308,020	320,435	331,231	350,128	376,842	391,090
11. Reinsurance PFAD					16	-	-	-	-	-
12. Maintenance Expense [a]				12,514	14,027	14,931	15,318	15,494	16,144	
13. Internal Loss Adjustment Expense [Sheet 1, Row 11]				81,269	84,087	88,248	70,025	75,328	78,218	
14. Expected Claims (Including Ext Adj Expenses) - PIPP Enhancement				3,369	3,369	3,369	3,369	3,369	3,369	3,369
15. Equity in Unearned Premium [(8) - Sum((9) to (14))]				(20,785)	(11,828)	8,676	3,808	(7,722)	(4,465)	
16. Carried Deferred Policy Acquisition Expenses				25,384	24,083	25,431	28,475	27,855	28,888	
17. Write Down Deferred Policy Acquisition Expenses [b]				25,384	24,083	18,754	22,887	27,855	28,888	
Change						(1,291)	(5,338)	4,113	4,788	1,230
18. Premium Deficiency [c]					20,785	11,828	-	-	7,722	4,465
Change						(9,158)	(11,828)	-	7,722	(3,257)

**Notes**

- [a] ((8) - (9)) x (3) x Discount to Valuation Date Without Margin
- [b] Min((16) - (15), (16)) if greater than 0, otherwise 0
- [c] Negative of (15) if greater than 0, otherwise 0

**Exhibit 1g**  
**Equity Decline and High Loss Ratio Scenario**  
**Summary of Corporate Investment Income**

	2014/15	2015/16	2016/17 Forecasted	2017/18	2018/19
<b>Interest Income During Period</b>					
Cash/Short Term Investments	635	312	703	2,004	3,419
Marketable Bonds	33,139	32,917	34,066	36,612	40,711
MUSH	30,293	31,039	31,399	32,130	32,814
<b>Total</b>	<b>64,067</b>	<b>64,268</b>	<b>66,168</b>	<b>70,747</b>	<b>76,945</b>
<b>Dividend and other Income</b>					
Canadian Equities	11,216	12,323	12,629	12,547	13,253
US Equities	3,256	3,503	3,766	3,742	3,938
Investment Properties (Cityplace)	3,366	3,433	3,502	3,572	3,643
Infrastructure	3,050	5,411	8,823	10,955	10,955
<b>Total</b>	<b>20,888</b>	<b>24,670</b>	<b>28,719</b>	<b>30,816</b>	<b>31,790</b>
<b>Gains During Period - Profit &amp; Loss</b>					
Marketable Bonds Unrealized Gains/(Loss)	(57,232)	(37,623)	(21,562)	(20,694)	5,005
Marketable Bonds Realized Gains/(Loss)	(4,664)	(5,847)	(3,192)	(3,652)	883
MUSH	-	-	-	-	-
Canadian Equities Realized Gains	16,195	11,560	6,583	2,548	4,060
US Equities Realized Gains	-	-	-	-	-
Real Estate (Pooled Fund)	10,611	13,323	16,011	16,972	17,990
Infrastructure	-	-	-	-	-
<b>Total</b>	<b>(35,090)</b>	<b>(18,587)</b>	<b>(2,159)</b>	<b>(4,827)</b>	<b>27,939</b>
<b>Other</b>					
Investment Fees Paid	(3,803)	(4,258)	(4,587)	(4,762)	(4,981)
Pension Expense	(11,752)	(12,338)	(12,951)	(13,594)	(14,268)
Investment Write-Down	-	-	-	-	-
<b>Total</b>	<b>(15,555)</b>	<b>(16,596)</b>	<b>(17,538)</b>	<b>(18,356)</b>	<b>(19,249)</b>
<b>Total Corporate Investment Income</b>	<b>34,310</b>	<b>53,755</b>	<b>75,189</b>	<b>78,380</b>	<b>117,424</b>
<b>Total Basic Investment Income</b>	<b>28,759</b>	<b>45,057</b>	<b>63,024</b>	<b>65,698</b>	<b>98,425</b>
<b>Equity Unrealized Gains/(Losses)</b>					
Canadian Equities Unrealized Gains	16,925	(14,961)	(15,271)	(15,171)	16,925
US Equities Unrealized Gains	7,009	(4,419)	(4,688)	(4,659)	7,065
<b>Total Corporate Unrealized Gains/(Losses)</b>	<b>23,934</b>	<b>46,745</b>	<b>51,599</b>	<b>57,379</b>	<b>64,566</b>
<b>Ending Values and Allocations</b>					
	2014/15	2015/16	2016/17 Forecasted	2017/18	2018/19
<b>Ending Asset Values for Corporate (\$Millions)</b>					
Cash/Short Term Investments	25.9	25.0	25.0	75.6	80.1
Canadian Fixed Income	908.5	835.4	793.5	770.6	823.4
MUSH	606.8	608.7	627.2	622.1	633.6
Canadian Equities	408.7	406.1	403.4	401.4	449.6
US Equities	149.3	148.3	147.4	146.7	163.7
Real Estate	241.8	305.2	321.2	338.1	356.1
Infrastructure & Venture Capital	64.4	114.4	164.4	164.4	164.4
<b>Total Corporate Assets</b>	<b>2,405.5</b>	<b>2,443.1</b>	<b>2,482.1</b>	<b>2,518.9</b>	<b>2,671.0</b>
<b>Total Basic Assets</b>	<b>2,016.3</b>	<b>2,047.8</b>	<b>2,080.5</b>	<b>2,111.4</b>	<b>2,238.8</b>
<b>Ending Rebalanced Allocations (%)</b>					
Cash/Short Term Investments	1.1%	1.0%	1.0%	3.0%	3.0%
Canadian Fixed Income	37.8%	34.2%	32.0%	30.6%	30.8%
MUSH	25.2%	24.9%	25.3%	24.7%	23.7%
Canadian Equities	17.0%	16.6%	16.3%	15.9%	16.8%
US Equities	6.2%	6.1%	5.9%	5.8%	6.1%
Real Estate	10.1%	12.5%	12.9%	13.4%	13.3%
Infrastructure & Venture Capital	2.7%	4.7%	6.6%	6.5%	6.2%
<b>Total Corporate</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**PUB (MPI) 2-43**

**Reference: Financial Model Equity Decline Scenario, 2 Year Equity Decline, InvestAssumQu Cells T:AA118**

Please file support for the assumption that equity returns return to just normal levels after the assumed two-year equity decline.

**RESPONSE:**

There is no justification for this assumption as clearly stated on page 31 of the DCAT report.

*"The highlighted cells indicate where the base forecast equity assumptions were used. We've identified these cells because the historical data indicates that equity returns are not independent from year-to-year (especially after large declines), and therefore, these results may not be plausible beyond the return period tested. The highlighted results are for information only and will not be used in the selection of the most adverse equity decline scenario."*

The two-year equity decline scenario is modeled based on the historical *two-year cumulative equity return experience*, and therefore, the assumptions used in this scenario are only applicable to the *two-year* period being modeled. If the reader is interested in the results of 1, 2, 3, or 4 year equity return scenarios, this information is available in the DCAT report at the 1-in-20, 1-in-40, and 1-in-100 plausibility levels. Regardless of what experience materializes after the end of the two-year simulation period (i.e. after 2016/17), the results of the two year scenario were the most adverse to the Corporation *as of the end of the 2016/17 year*. The Corporation understands that there may be different experience for three-year scenarios (which is modeled in the DCAT), but that does not change applicability of the results of the two-year scenario as of the end of 2016/17. The Chief Actuary must test the financial condition of Basic for all combinations of *time periods* and plausibility levels to





determine which scenarios are the most adverse at each point-in-time. The timing of the adverse scenarios is an important part of the DCAT analysis. As stated on page 32 of the DCAT report:

*"Of the 1-in-40 probability scenarios, the largest overall decline in Total Equity relative to the base forecast (highlighted cells excluded) occurs for the three-year scenario (\$186 million lower than the base forecast). However, the scenario with the lowest Total Equity balance (-\$5 million in 2016/17) is the two-year scenario. The two-year scenario is \$182 million lower than the base forecast. We selected the two year equity decline scenario to run through the financial model."*



**PUB (MPI) 2-44**

**Reference: CAC/MPI 1-110 (c) & (d)**

- a) Please describe the common practices used in the P&C industry for interest rate forecasting and compare with that used by MPI.
- b) Please indicate how SGI and ICBC forecast interest rates and compare with that used by MPI.

**RESPONSE:**

- a) The Corporation cannot comment on the interest rate forecasting methodology of other insurance companies.
- b) Please see the response to a).