

CAC (MPI) 1-1 Reference: Value to Manitobans SM.1 page 16.

Preamble: "In fiscal year 2013-2014, based on the office of the Auditor General recommendation, Manitoba Public Insurance studied the four previously non-indexed PIPP benefits for reasonableness and fairness and we have made recommendations to index these benefits going forward."

- a) Please describe the four non-indexed PIPP benefits.
- b) By indexing these four benefits, please provide the estimated annual claims incurred increase by fiscal year for 2013/14 through to 2017/18.
- c) Has legislation passed to index the four non-indexed PIPP benefits, if not, when is legislation expected to pass.

- a) The four non-indexed benefits are:
  - 1. Grief Counselling for eligible survivors of the deceased (this became an indexed benefit effective June 3, 2013).
  - Critical Care Attendance expenses up to \$3,700 for a maximum of two people are covered for up to 21 days after the accident for attending to a close relative in hospital who requires critical care because of an automobile injury.
  - 3. Medical reports ordered in support of review or appeal (reimbursement to a maximum \$250 per report/up to three reports)
  - 4. Clothing Allowance an annual allowance (maximum \$900 annually) for excess wear or alteration of clothing directly resulting from an accident, to a victim who is either confined permanently to a wheelchair or required to wear a prosthesis or orthotic device.

- b) The indexation for all four benefits equates to approximately \$50,000 per annum.
- c) Grief Counseling became an indexed benefit effective June 3, 2013.
   Recommendations for other indexations are forthcoming.

# CAC (MPI) 1-2 Reference: Value to Manitobans SM.1 page 19.

Preamble: Service Centre Model. "As this initiative matures, the Corporation expects to remove, in a substantial way, seasonal backlogs in claims."

a) Please provide a claims volume backlog history by quarter for the last two fiscal years:

Fiscal Year 2012/13:	Claims Volume Backlog
Nov - Jan	
Feb - Apr	
May - Jul	
Aug - Oct	
Fiscal Year 2013/14:	
Nov - Jan	
Feb - Apr	
May - Jul	·
Aug - Oct	

- b) Please elaborate on the procedures and processes put in place to overcome claims volume backlogs.
- c) Please explain, in general terms, the impact (financial and otherwise) of claims volume backlogs on policy liability valuations and claims incurred forecasting.
- d) Please provide a detailed analysis of how claims incurred reserves were booked at year-end for the claims volume backlog.

#### **RESPONSE:**

a) and b)

Basic insurance rates are set prospectively based on pro forma financial projections of expenses and revenues and actuarial modeling. This information request has no bearing on the reasonableness of the financial projections or actuarial modeling used to determine rates effective March 1, 2015. This is consistent with the Corporation's understanding of the PUB's mandate as stated in *The Crown Corporations Public Review and Accountability Act* and by the Court of Appeal. Considerable information of an operational nature was provided in the filing, though rate setting does not entail an operational review or audit of Manitoba Public Insurance. For these reasons, the Corporation declines to incur the additional staff effort and operating expenses associated with responding to this information request.

- c) See PUB (MPI) 1-39 (b).
- d) See PUB (MPI) 1-39 (b).

CAC (MPI) 1-3 Reference: SM.4 2015/16

**Comparative Statement** 

page 14.

Preamble: Increase in claims incurred by \$2,630,000 due to higher costs from Collaborative Estimating Initiative.

- a) Please explain, in detail, the justification and benefits of implementing the Collaborative Estimating Initiative.
- b) Please provide the detailed Collaborative Estimating Initiative project costs, by fiscal year.

- a) Collaborative Estimating will bring the Corporation and the repair shops onto a common supported platform. The focus of this initiative is online estimate sharing, including collaborative estimating for electronic supplement processing. It includes the automatic maintenance of a "gold copy" estimate which eliminates the need for manual reconciliation between repair shops and Manitoba Public Insurance, enabling the automation of payments to repair shops. In the short-term, there is an incremental increase in expenses due to software licensing. These expenses are part of the base architecture required for the entire PDR program and will reduce as business changes are implemented during the program roll-out. Refer to PUB (MPI) 1-75 for further details on projected program benefits.
- b) Please refer to PUB (MPI) 1-75.

CAC (MPI) 1-4 Reference: SM.5 Rate Setting

Framework page 6.

Preamble: "Complementing this is the use of underlying statistical data. The Corporation uses the data as reported in its claims database in a structured, consistent manner each year."

- a) Please elaborate on the reliability of the claims database. Please itemize the procedures MPI has in place to ensure the accuracy of the claims database.
- b) Please elaborate on and itemize the changes made to the claims system impacting the claims database during the last year.

- a) There are controls in place to validate the claims database on a regular basis that consist of technical checkpoints throughout the various online and batch processes as well as post batch activities by multiple user groups to validate the activity against other systems of record. As a result of these controls, if a system defect is discovered, then the defect resolution process (Unified Production Support Process) is initiated to resolve the defect and maintain the integrity of the database.
- b) Changes to the claims system that impact the claims database are not permitted by the vendor of the bodily injury system. Only vendor initiated changes are implemented via controlled system upgrades. During the last year changes were made to the physical damage database, primarily to accommodate the PD-Reengineering initiative by adding new tables to support new information requirements.

Reference: CAC (MPI) 1-91 (a) and (b) and

PUB (MPI) 1-36 (a) to (f) of the 2014 GRA.

Please prepare and file similar schedules as filed in CAC (MPI) 1-91 (a) and PUB (MPI) 1-36 (a) to (f) in the 2014 GRA for Basic Insurance; namely, Six Year Claims Frequency Comparison, Six Year Claims Severity Comparison, and Six Year Claims Incurred Comparison and comparing Original Projected, Revised Projected and Actual Basic Insurance; namely, Schedule 1 Ten Year Claims Frequency Comparison, Schedule 2 Ten Year Claims Severity Comparison, Schedule 3 Ten Year Claims Incurred Comparison, Schedule 4 Ten Year Comprehensive – Theft Claims Frequency Comparison, Schedule 5 Ten Year Comprehensive – Theft Claims Severity Comparison and Schedule 6 Ten Year Comprehensive – theft Claims Incurred Comparison.

#### **RESPONSE:**

Please refer to CAC (MPI) 1-2 a) and b).

CAC (MPI) 1-6 Reference: Volume III 2013 Annual

Report AI.6 Part 1B

page 14.

Preamble: "..we are enhancing our collaborative relationship with the repair industry and working to address the challenges of increasingly complex vehicle design and construction. This is aided by the extension of our agreement with the Automotive Trades Association and the Manitoba Motors Dealers Association, during which a cooperative approach will allow us to develop solutions to common issues".

- a) Please file a copy of the extended agreements with the Automotive Trades
  Association and the Manitoba Dealers Association.
- b) Please elaborate on the changes made to the extended agreements.
- c) Please elaborate on the "cooperative approach" which will allow developing solutions to common issues.

#### **RESPONSE:**

a) to c)

Please refer to CAC (MPI) 1-2 a) and b).

CAC (MPI) 1-7 Reference: Volume III 2013 Annual

Report AI.6 Part 1B

page 14.

Preamble: "An update to the Manitoba Collision Repair Industry Study which will be used to determine the effectiveness of initiatives undertaken to date and set the foundation for future process improvements".

- a) Please file a copy of the updated Manitoba Collision Repair Industry Study.
- b) Please elaborate on the recent updates made to the study.

#### **RESPONSE:**

a) and b)

Please refer to CAC (MPI) 1-2 a) and b)

CAC (MPI) 1-8 Reference: Volume III 2013 Annual Report AI.6 Part 1B page 23.

Preamble: "Salvage vehicles were sold to automobile recyclers and the public to be rebuilt or used for replacement parts" amounting to \$27,355,000.

- a) Please calculate and provide the amount of salvage vehicle sales allocated to Basic Insurance.
- b) Please provide a detailed operating statement for salvage vehicle sales for the fiscal years 2013/14 and forecasted for 2014/15 and 2015/16.

#### **RESPONSE:**

a) Please refer to part b) for the amount of salvage vehicle sales allocated to Basic as it is included in the operating statement provided. Please note that the reference to \$27,355,000 is an incorrect interpretation of the information in the 2013 Annual Report. The Annual Report shows 27,355 as the number of salvage vehicles sold and does not reflect an amount of sales.

b)	_	Actual 2013-14
	VEHICLE AUCTION SALES	
	Vehicles -Winnipeg	\$ 26,658,778
	Vehicles - Rural	1,091,495
	Vehicles -Tender	5,926,080
	Retained input tax credits	1,394,946
	Total Vehicle Auction Sales	\$ 35,071,299
	Expenses	2,730,419
	Net recovery on Operations	\$ 32,340,880

Salvage is a reduction in Basic claims incurred expenses as it is a recovery on the vehicles that have transferred ownership to the Corporation subsequent to a claim being made. Basic claims incurred are forecasted based on historical experience and growth factors as part of the actuarial forecast and the past history of salvage is taken into consideration on a historical average perspective. No specific budget exists for salvage as it is variable depending on claims history and the market demand.

Reference: Annual Audited Financial Statement for the fiscal year ended February 28, 2014 (Report).

Preamble: The Actuary's Report indicates the following "...I have valued the policy liabilities of Manitoba Public Insurance Corporation..." In the Basis of Reporting Statement of Compliance section of the Report it states "...the external actuary is required to carry out a valuation of the insurance contract liabilities..."

Please elaborate on the difference(s) between 'policy liabilities' and 'insurance contract liabilities'.

#### **RESPONSE:**

Per Canadian Actuarial Standards of Practice 1100.27.2 and 1100.35 respectively:

Insurance contract liabilities in an insurer's statement of financial position are the liabilities at the date of the statement of financial position on account of the insurer's insurance contracts, including commitments, which are in force at that date or which were in force before that date.

Policy liabilities in an insurer's statement of financial position are the liabilities at the date of the statement of financial position on account of the insurer's policies, including commitments, which are in force at that date or which were in force before that date. Policy liabilities consist of insurance contract liabilities and liabilities for policy contracts other than insurance contracts.

Reference: Annual Audited Financial Statement for the fiscal year ended February 28, 2014 (Report) page 31.

Preamble: "Adjustment to the Selected IBNR for Claims Reporting Backlog
The Corporation experienced a significant increase in the number of collision claims
for the most recent accident year due to a worse than normal winter season. As a
result, there were significant delays in the claims reporting process...The change in
the selected IBNR increased the discounted net claim liabilities by \$18.8 million and
ILAE provision by \$3.8 million.

- a) Please elaborate on the status of the claims backlog.
- b) Please elaborate on how the updated information technology infrastructure aided in the managing of the claims volume backlog, if any.
- c) Please elaborate as to when the special backlog IBNR of \$18.8 million and ILAE provision of \$3.8 million will be released back into operational results.

- a) There is no claims backlog from the winter of 2013/14 at this time.
- b) Please refer to CAC (MPI) 1-2 a) and b).
- c) The majority of the IBNR and ILAE will be released back into operations in the first two quarters of 2014/15 as these claims are processed. The projected release of the IBNR and ILAE is included as part of the Corporation's claims forecasts. Exhibit 5, Table 8, of Volume II Claims Incurred, shows the expected changes in collision IBNR by fiscal year.

Reference: CAC (MPI) 1-95 of the 2014 GRA—Physical Damage Growth
Rates

Preamble: In the 2014 GRA the physical damage growth rate factors were found as part of Exhibit 5 and 6 in Volume II Claims Incurred.

- a) Please file a copy of the detailed Repair Rates Growth Factors similar to the tables in Exhibit 5, Table 5 and Exhibit 6, Table 5 Volume II Claims Incurred of the 2014 GRA.
- b) Please comment on any significant changes, in the Repair Rates Growth Factors, from the 2014 GRA compared to the 2015 GRA.

- a) The Repair Rates Growth Factors analysis was not used to create this year's Collision or Comprehensive forecasts. The methodology used is outlined in Volume II Claims Incurred (CI).
- b) See part (a).

Reference: CAC (MPI) 1-94 from the 2014 GRA – Statistical Measures of the Efficacy of Forecasting Methodology

- a) Please extend the tables provided in the referenced response from last year's GRA to include the 2013/14 insurance year.
- b) Please elaborate on improvements achieved and made in the Forecasting Methodology from the 2014 GRA to the 2015 GRA.

- a) Please see attachment. Note: Prior to the 2014 GRA (i.e. prior to the 2012/13 and 2013/14 Original Projected forecasts), the Corporation's claims incurred forecasts did not include the impact of projected changes in interest rates (i.e. the Corporation's forecast assumed a fixed claims liability discount rate over the entire forecast period).
- b) The most significant change in the forecasting methodology in the current GRA is forecasting both claim severity and claim frequency for PIPP claims. Previously, only the ultimate incurred from the Appointed Actuary's Report were used to make this forecast. For the 2015 GRA, ultimate severity and ultimate frequency are now forecasted separately by coverage to determine the ultimate incurred for the forecasted year. A more detailed explanation of this process can be found in Volume II Claims Incurred, section CI.3.1.



Claims Incurred	i (\$000)		_		Statistical Measures: Original Projected				Statistical Measures: Revised Forecast			Statistical Measures: Revised Forecast				
Ins Year	Actual	Original Projected	Revised Forecast	Square Predication Error (\$Bil)	Absolute Percentage Predication Error	Percentage Predication Error	Prediction Error (\$000)	Prediction Variance (\$Bil)	Square Predication Error (\$Bil)	Absolute Percentage Predication Error	Percentage Predication Error	Prediction Error (\$000)	Prediction Variance (\$Bil)			
2001/02	433,873	388,495	433,214	2059.163	11.680	11.680	45,378	28700.973	0.434	0.152	0.152	659	15081.540			
2002/03	467,715	440,836	446,043	722.481	6.097	6.097	26,879	13705.997	469.676	4.859	4.859	21,672	12095.144			
2003/04	513,548	468,320	494,107	2045.572	9.657	9.657	45,228	8026.120	377.952	3.935	3.935	19,441	3833.334			
2004/05	457,222	513,305	513,305	3145.303	10.926	-10.926	-56,083	1989.483	3145.303	10.926	-10.926	-56,083	1824.650			
2005/06	520,962	539,534	531,397	344.919	3.442	-3.442	-18,572	337.626	108.889	1.964	-1.964	-10,435	606.338			
2006/07	534,860	555,985	557,462	446.266	3.800	-3.800	-21,125	3.700	510.850	4.054	-4.054	-22,602	2.077			
2007/08	525,287	582,419	589,463	3264.065	9.809	-9.809	-57,132	600.759	4118.559	10.887	-10.887	-64,176	1118.373			
2008/09	519,541	615,877	603,431	9280.625	15.642	-15.642	-96,336	3360.334	7037.532	13.902	-13.902	-83,890	2247.715			
2009/10	515,787	624,873	595,705	11899.755	17.457	-17.457	-109,086	4484.229	6386.887	13.416	-13.416	-79,918	1574.826			
2010/11	333,071	627,293	619,176	86566.585	46.903	-46.903	-294,222	4814.193	81856.071	46.207	-46.207	-286,105	3988.564			
2011/12	612,037	647,389	585,436	1249.764	5.461	-5.461	-35,352	8006.739	707.613	4.544	4.544	26,601	865.247			
2012/13	661,287	610,344	612,334	2595.189	8.347	8.347	50,943	2749.470	2396.396	7.994	7.994	48,953	3171.163			
2013/14	747,435	638,142	647,199	11944.960	17.127	17.127	109,293	6437.396	10047.256	15.488	15.488	100,236	8313.442			
Average	526,356	557,909	556,021	Root Mean Square Error (RMSE, \$000)	Mean Absolute Percentage Error (MAPE)	Mean Percentage Error (MPE)	Bias Frequency Ratio (BFR)	Standard Deviation (SD, \$000)	Root Mean Square Error (RMSE, \$000)	Mean Absolute Percentage Error (MAPE)	Mean Percentage Error (MPE)	Bias Frequency Ratio (BFR)	Standard Deviation (SD, \$000)			
Standard Deviation (SD)	99,606	80,008	64,880	102,118	12.796	-4.656	0.625	80,008	94,935	10.641	-4.953	0.857	64,880			

Bias frequency ratio (BFR) is calculated using the number of years with positive projection errors divided by the number of years with negative projection errors.

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# CAC (MPI) 1-13 Reference: Claims Incurred Forecasting

- a) Please provide an update of the Claims Forecasting Committee membership. If there have been any changes in the membership since the 2014 GRA, please explain the changes in membership.
- b) Please describe the expertise brought to the table by the current Claims Forecasting Committee members.

#### **RESPONSE:**

a) and b)

Please refer to CAC (MPI) 1-2 a) and b).

CAC (MPI) 1-14 Reference: Volume II Claims Incurred
CI.1 page 5

Preamble: "For coverages where claim payments occurs over a longer period (e.g. PIPP accident benefits), the Corporation starts by forecasting the accident year ultimate incurred losses and then uses the development assumptions to project 'backwards' the paid and incurred losses from ultimate to 12 months."

Please compare the current year forecasting methodology for PIPP claims incurred to previous years, explain and rationalize the differences, if any.

#### **RESPONSE:**

Please see response for CAC (MPI) 1-12(b). The Corporation is able to forecast claims more reliably by looking at both claim severity and claim frequency as opposed to only forecasting based on total incurred. This new process will allow the Corporation to more accurately predict future trends in claim frequency and claim severity. A more detailed explanation of this process can be found in Volume II Claims Incurred, section CI.3.1.

CAC (MPI) 1-15 Reference: Volume II Claims Incurred
CI.2 page 7

Preamble: Development Assumptions. For Collision negative development occurs from year 4 to 8 and for Property Damage negative development occurs from year 4 to 9.

- a) Please explain the cause of the negative development for Collision and Property Damage.
- b) Please quantify the negative development by year and coverage.

- a) Negative development is a result of the amounts received from the salvage of vehicles.
- b) Refer to the attached table.

#### Impact of Negative Development on Collision and Property Damage

_		Collision		Property Damage			
Insurance	Actual	Ex pected	Total	Actual	Ex pected	Total	
Year	Devt	Devt	Devt	Devt	Devt	Devt	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
04/05	-483,399	0	-483,399	-93,760	0	-93,760	
05/06	-508,357	0	-508,357	-134,285	0	-134,285	
06/07	-252,133	0	-252,133	-96,260	-16,793	-113,054	
07/08	7,419	-116,586	-109,167	-205,903	-34,299	-240,203	
08/09	-96,184	-241,668	-337,852	-118,463	-54,053	-172,516	
09/10	-4,565	-363,569	-368,134	12,737	-70,271	-57,534	
10/11	0	-541,348	-541,348	0	-111,919	-111,919	
11/12	0	-544,193	-544,193	0	-111,896	-111,896	
12/13	0	-617,905	-617,905	0	-124,095	-124,095	
13/14	0	-669,080	-669,080	0	-124,945	-124,945	

#### Notes:

- (2): Actual reported from 48 months to 96 months
- (3): Expected additional reported from 48 months to 96 months based on selected reported loss development factors
- (5): Actual reported from 48 months to 108 months
- (6): Expected additional reported from 48 months to 108 months based on selected reported loss development factors

CAC (MPI) 1-16 Reference: Volume II Claims Incurred
CI.2 page 9

Preamble: Assumed Claim Liability Duration (Years)

- a) Please elaborate on the claim duration of 10.30 years for 2013/14 compared to other years.
- b) Please file a claim liability duration chart, by coverage, for fiscal years ended February 29, 2013 and February 28, 2014.

- a) The figure referenced should be 10.16 instead of 10.30, and it represents the Corporation's overall claims duration including all actuarial provisions (i.e. the provisions for adverse deviation) as of February 28, 2014. The duration decreases in future years because of the projected increases in the interest rate of the Corporation's fixed income portfolio as presented in CI.2, Page 8.
- b) Refer to the attached table.

### **Duration of the Corporation's Overall Claim Liabilities**

	As at February 28, Ex cl Actuarial Pr		As at February 28, Ex cl Actuarial Pro		As at February 28, 2014 [b] Incl Actuarial Provisions		
Coverage	Direct	Net	Direct	Net	Direct	Net	
Accident Benefits - Pre-PIPP							
Weekly Indemnity [c]	6.75	6.75	8.56	8.56	8.85	8.85	
Other - Non-Index ed	0.50	0.50	0.50	0.50	0.50	0.50	
Total	6.03	6.03	7.60	7.60	7.92	7.92	
Accident Benefits - PIPP							
Weekly Indemnity [c]	10.73	10.73	12.44	12.40	13.44	13.44	
Other - Index ed [c]	11.45	11.45	11.15	11.12	11.77	11.76	
Other - Non-Index ed	2.21	2.21	2.15	2.15	2.20	2.20	
PIPP Enhancement [d]	12.80	12.80	14.40	14.40	15.36	15.36	
Total	10.84	10.84	11.58	11.54	12.43	12.41	
Public Liability - Bodily Injury							
Pre-PIPP	0.50	0.50	0.50	0.50	0.50	0.50	
PIPP	2.36	2.36	2.37	2.37	2.40	2.40	
Total	2.31	2.31	2.37	2.37	2.40	2.40	
Property Damage	0.68	0.68	0.67	0.67	0.67	0.67	
Collision	0.47	0.47	0.48	0.48	0.48	0.48	
Comprehensive	0.64	0.64	0.64	0.64	0.65	0.65	
Total Bodily Injury [e]	10.12	10.12	10.78	10.76	11.62	11.62	
Total Physical Damage [f]	0.54	0.54	0.54	0.54	0.53	0.53	
Total Division	<u> </u>	8.92	9.31	9.26	10.23	10.20	
ILAE	8.84	8.84	8.95	8.95	9.77	9.77	
Total Division + ILAE	8.93	8.91	9.27	9.23	10.18	10.16	

#### Notes:

[a] Interest Rate - 3.53% all years

[b] Interest Rate - 3.68% all years

[c] Index ation at expected inflation of 2.00%

[d] Index ation at expected inflation of 2.00% for applicable coverage

[e] Total Accident Benefits and Public Liability - Bodily Injury

[f] Total Property Damage, Collision and Comprehensive

CAC (MPI) 1-17 Reference: Volume II Claims Incurred

CI.3 page 11 and

**Appendix C** 

Preamble: "Prior accident year's Weekly Indemnity ultimate loss estimates were increased significantly in the October 2013 Appointed Actuary's report. The increase was caused mainly from a March 2014 review of all existing PIPP claims reserves,..."

- a) Please file a copy of the March 2014 PIPP review report.
- b) Please elaborate on the significant increase in Income Replacement (\$107,539,000 for 2014 compared to \$69,581,000 for 2013) and Expenses (\$46,026,000 for 2014 compared to \$17,316,000 for 2013) as shown in Appendix C.
- c) Please elaborate on the cause of what necessitated the March 2014 PIPP review.
- d) Please elaborate on the changes to the Reserving Calculator caused by the March 2014 PIPP review, if any.
- e) Please elaborate on how the March 2014 PIPP review could have affected the October 2013 Appointed Actuary's report which would have been completed before March 2014 (released January 17, 2014).

#### **RESPONSE:**

a) Note that the text referenced should read "March 2013 review". The purpose of the review was to ensure compliance with existing reserving guidelines and that case reserves were adequate to reflect the loss exposure. Given the purpose of the review, it did not require/include a formal report.

- b) The significant increase in Income Replacement is noted in page 1 of Appendix C
   "2014 reported incurred was higher than in previous years as a result of a
   2013/14 internal review of case reserves on all open PIPP claim."
  - The increase in Expenses is because of a change implemented in the 2013 year which significantly lowered the 2013 incurred. Per page 25 of the Actuarial Report as at October 28, 2013, as presented in Volume III, AI.7, "The new claims management system was improperly handling the auto-reserving and auto-closing of new claims, resulting in excess reserves for certain benefits. The Corporation confirms that this issue was rectified as of November 2012."
- c) Refer to the response to (a) above.
- d) No changes were made to the Reserving Calculator as it was not within the purpose of the review.
- e) Refer to the response to (a) above.

CAC (MPI) 1-18 Reference: Volume II Claims Incurred

Appendix C and

Appendix D

Preamble: Differences in total claims incurred.

Please reconcile and explain the difference in claims incurred between Appendix C and D. (For example, the claims incurred for 2014 on Appendix C is \$225,768,000 and on Appendix D the amount is \$99,797,833).

#### **RESPONSE:**

Appendix C shows yearly reported incurred by fiscal year for all accident years. Appendix D shows yearly reported incurred by accident year as of 12 months, or end of year. Therefore, the amount shown in Appendix C will always be at least as much as Appendix D.

CAC (MPI) 1-19 Reference: Volume II Claims Incurred
CI.3.4 page 24

Preamble: PIPP Enhancements. In 2013/14 the claims incurred are negative by \$3,292,000, a decrease from the 2014 GRA of \$13,510,000. In 2014/15 the reported claims incurred are forecasted to be \$13,975,000. The rationale given is as follows: "The reported incurred forecast in 2014/15 increases significantly as the development assumptions assume that a large percentage of the current IBNR for PIPP enhancements will be reported."

Please elaborate on this assumption in light of the significant decrease in IBNR in the previous year (a decrease from forecast of \$14 million).

#### **RESPONSE:**

Note that the decrease in IBNR in 2013/14 is \$8.9 million. The \$13.5 million represents the variance from last year's forecast.

The decrease in claims incurred of \$3,292,000 in 2013/14 is more appropriately compared with the increase in 2014/15 of \$6,212,000, a shift of \$9,504,000. However, the decrease in 2013/14 includes a change in the expected utilization for certain PIPP Enhancement coverages. As stated in page 29 of the Annual Financial Statement (AI.6, Part 1A), "The expected utilization for certain PIPP Enhancement coverages were reduced to reflect the actual utilization and cost. The reduction results in a decrease in the discounted net claim liabilities by \$6.6 million." Excluding the reduction, the shift is \$2.9 million.

The rationale for the forecasted reported of \$13,975,000 for 2014/15 is as provided.

CAC (MPI) 1-20 Reference: Volume II Claims Incurred

CI.5 page 25 and

CI.1 page 5

Preamble: Collision, Comprehensive and Property Damage

Please provide the 'at-12-month' claims incurred data, used to develop the claims incurred forecasts, by peril for collision, comprehensive and property damage by accident year for the previous five fiscal years and for the forecasting period by fiscal year.

#### **RESPONSE:**

Please see attachment.

# Physical Damage at 12 months (\$000)

	Actual 2009/10	Actual 2010/11	Actual 2011/12	Actual 2012/13	Actual 2013/14	Forecast 2014/15	Forecast 2015/16	Forecast 2016/17	Forecast 2017/18	Forecast 2018/19
Collision										
Collision with Wildlife	\$25,288	\$27,360	\$26,787	\$29,257	\$28,261	\$29,880	\$31,728	\$33,690	\$35,773	\$37,986
Collision	\$212,488	\$233,110	\$239,204	\$265,710	\$296,529	\$311,334	\$330,369	\$350,570	\$372,008	\$394,759
Total Collision	\$237,776	\$260,470	\$265,991	\$294,967	\$324,790	\$341,214	\$362,097	\$384,260	\$407,781	\$432,745
Comprehensive										
Fire	\$5,636	\$5,474	\$5,241	\$5,970	\$6,116	\$6,274	\$6,387	\$6,491	\$6,604	\$6,722
Attempted Theft	\$3,579	\$2,543	\$1,513	\$1,352	\$1,403	\$1,409	\$1,466	\$1,524	\$1,585	\$1,650
Total Theft	\$10,368	\$8,365	\$6,572	\$7,415	\$7,725	\$7,940	\$8,257	\$8,588	\$8,932	\$9,291
Partial Theft	\$1,066	\$869	\$658	\$599	\$576	\$597	\$624	\$650	\$678	\$708
Glass	\$3,906	\$4,490	\$5,635	\$6,369	\$6,733	\$7,250	\$7,709	\$8,197	\$8,715	\$9,267
Vandalism	\$9,611	\$9,468	\$9,256	\$9,797	\$8,700	\$9,086	\$8,861	\$8,642	\$8,428	\$8,219
Hail	\$31,297	\$22,816	\$27,724	\$20,916	\$21,285	\$21,636	\$22,976	\$24,396	\$25,905	\$27,507
Non-Catastrophe	\$8,537	\$14,610	\$12,331	\$14,466	\$15,987	\$17,262	\$18,320	\$19,447	\$20,640	\$21,910
All Other Comprehensive	\$495	\$392	\$348	\$620	\$515	\$493	\$518	\$545	\$573	\$602
Total Comprehensive	\$74,495	\$69,027	\$69,278	\$67,504	\$69,040	\$71,947	\$75,118	\$78,480	\$82,060	\$85,876
Property Damage										
Third Party Deductible Transf	\$16,552	\$18,362	\$17,293	\$19,489	\$19,832	\$20,153	\$20,506	\$20,865	\$21,230	\$21,602
Third Party Loss of Use	\$5,393	\$5,151	\$5,570	\$5,933	\$6,672	\$6,802	\$7,301	\$7,838	\$8,413	\$9,031
Other Property Damage	\$9,472	\$8,406	\$9,856	\$10,132	\$9,551	\$10,371	\$10,925	\$11,507	\$12,122	\$12,771
Total Property Damage	\$31,417	\$31,919	\$32,719	\$35,554	\$36,055	\$37,326	\$38,732	\$40,210	\$41,765	\$43,404

CAC (MPI) 1-21 Reference: Volume II Claims Incurred
CI.5 page 31

Preamble: Collision Claims Incurred. "...there were several factors that led to the 2013/14 severity increase that were not contemplated in last year's forecast. – 1% higher severity due to a change in reserving practices. The higher reserves do not reflect a change in the cost of collisions, but rather a change in the timing of when reserves are recorded and removed."

- a) Please elaborate on the impact on severity as a result of the change in timing of when reserves are recorded and removed.
- b) Please elaborate on the process of how reserves are removed as a result of full payments and partial payments for claims and expense reserves.
- c) By way of an example, please demonstrate how severity rises by 1% but claims incurred to do not increase.
- d) Please explain and detail the "change in reserving practices" that has been implemented.

- a) See PUB (MPI) 1-52 part (a). There was no impact on ultimate severity, but there was an impact on reported-to-date severity.
- b) The reserve is decreased by the amount of any loss payment. Expense payments do not decrease reserves. There is a 'full payment' checkbox in the system that can be selected when setting up a payment on a claim. If selected, all outstanding reserves for that cover will be removed regardless of the payment amount.
- c) See part (a).

d) See part (a).

CAC (MPI) 1-22 Reference: CAC (MPI) 1-91(a)

Preamble: Collision Trend

a) Please prepare a comparison analysis of the Collision, Comprehensive, and Property Damage claims frequency, claims severity and claims incurred by fiscal year quarter, in formats similar to 2014 CAC (MPI) 1-91(a), for the fiscal years 2012/13A through to 2013/14A and annually for fiscal years 2015/16P through to 2017/18P. (A – Actual, P – Projected)

b) For claims incurred, for the same periods and coverages as in (a) above, please provide a spreadsheet detailing the claims incurred amount into its components (paid, salvage recoveries, change in reported reserves, change in IBNR and ILAE, unallocated expenses and other).

- a) See the Volume II, Claims Incurred (CI) in the Rate Application for details on the Corporation's historical and projected claims experience. The Corporation's forecasts are based on annual data.
- b) See part (a) above, and CAC (MPI) 1-8 (b).

CAC (MPI) 1-23 Reference: Volume II Claims Incurred

**CI.5** pages 32 and 33

Preamble: Collision Claims Incurred Total Losses. "the most significant factor impacting the total loss severity was an increase in average vehicle value produced by the Corporation's valuation tool – Blackbook."

- a) Please elaborate and list the various valuation tools MPI uses to set total loss reserves.
- b) Please describe and list the source(s) of the data contained in the Blackbook.
- c) Please elaborate on the relevance of the average Blackbook values to the values of the MPI fleet of insured vehicles.
- d) Please explain and provide an analysis comparing the higher MPI average claim settlement value to the average Blackbook value.
- e) Please explain whether the total loss vehicle salvage recovery value is included in the calculation of the MPI average claim settlement value.
- f) Please prepare an analysis comparing ICBC and SGI average total loss settlement values to MPI's total loss settlement values for the last three fiscal years.

- a) The Corporation uses a combination of Blackbook, Bluebook, ADP/Audatex and online sources such as Auto Trader.
- b) Blackbook is a proprietary document/valuation tool. Manitoba Public Insurance is not privy to all sources of data contained in the Blackbook.

- c) Blackbook values are only used when a particular vehicle has been damaged and is deemed a total loss. Blackbook values are not compared to existing, nondamaged vehicles in the MPI fleet of insured vehicles.
- d) Where appropriate, the Corporation will use actual values contained in the Blackbook. Prices may vary up or down slightly due to actual vehicle condition.

	Average of BB	Average comparison	ACV paid over BB
	Values	Paid ACV	Average
2009	\$5687	\$6247	10%
2010	\$5809	\$6385	10%
2011	\$6360	\$6792	7%
2012	\$6716	\$6931	3%
2013	\$7191	\$7405	3%

- e) Salvage recovery amounts are not used in the calculation of the MPI average claim settlement value. Claim settlement values are based on Actual Cash Value of the vehicle immediately prior to the loss.
- f) Please refer to CAC (MPI) 1-2 a) and b).

CAC (MPI) 1-24 Reference: Volume II Claims Incurred
CI.8.5 pages 54

Preamble: Change in Premium Deficiency or DPAC Write-Down

- a) With a proposed 3.4% rate change effective March 1, 2015, please elaborate as to whether the Corporation is forecasting to be premium sufficient as of March 1, 2015. If not, please elaborate as to when the Basic Insurance will no longer be reporting a premium deficiency.
- b) Please elaborate on the rate change required to eliminate the premium deficiency by February 28, 2016.

#### **RESPONSE:**

a) The Corporation is proposing a 2.4% rate change effective March 1, 2015. The proposed 1.0% RSR rebuilding fee was not considered in the premium deficiency calculation.

As per Exhibit 1f of the DCAT report (Volume II RSR.2), the Corporation's proposed rate change and interest rate assumptions would be expected to eliminate the premium deficiency during fiscal 2015/16.

If however, as indicated in the application, the optimistic interest rate assumptions are not achieved, there will continue to be a shortfall in revenues in 2015/16 of approximately two per cent.

b) See part (a).

Reference: Volume II Claims Incurred CI.8.4 pages 53, Revenues R.3

page 25

Preamble: Reinsurance Ceded Claims

Please elaborate as to why MPI is not forecasting reinsurance ceded claims incurred for the years 2014/15 through to 2018/19 but is forecasting reinsurance ceded premiums for the years 2014/15 through to 2018/19.

#### **RESPONSE:**

The Corporation charges the casualty and catastrophe reinsurance premiums to customers as part of its Basic rate calculation. The ceded reinsurance premiums are assumed to be a good approximation of the expected costs for these layers of coverage. As described on Volume II Claims Incurred CI.6, page 43, the Corporation's hail forecast is calculated net of reinsurance recoveries to prevent 'double charging' customers for the same coverage.

CAC (MPI) 1-26 Reference: Volume II Claims Incurred Exhibit 8

Preamble: Body Shop Signing Bonus, PIPP out of House Counsel and Miscellaneous Provision

- a) Please elaborate on the Body Shop Signing Bonus of \$22,187 in 2013/14.
- b) Please elaborate on the PIPP out of House Counsel expenses of \$66,517 for 2013/14 and no expenses projected for years 2014/15 through to 2018/19.
- c) Please elaborate on the anticipated detailed expenditures for the \$750,000 annual provision for years 2014/15 through to 2018/19, if any.

#### **RESPONSE:**

- a) Please refer to CAC (MPI) 1-2 a) and b).
- b) The expenses are legal costs for the defense of three claims in the early 2000s. Future costs, if any, are dependent upon the next steps taken by the various plaintiffs.
- c) The Corporation is constantly looking to enhance the PIPP product and is currently exploring an initiative related to catastrophically injured claimants. This is expected to commence during 2014/15. The small provision has been forecasted in future years to account for other anticipated project undertakings.

## CAC (MPI) 1-27

Reference: Volume III Actuarial Reports AI.7 October 31, 2013 and February 28, 2014

Preamble: Page 6 of the October 31, 2013 Actuarial report states "We revised the loss development factors for Collision to reflect recent experience. Impact: Increase of \$0.2 million." In the letter dated May 2, 2014 to Ms. Heather Reichert forming part of the February 28, 2014 Actuarial report it states: "Due to the extreme cold weather, there was a backlog of unrecorded vehicle damage claims. A bulk IBNR (\$16.5 million before provision for adverse deviations) was added for the February 28, 2014 valuation to reflect the delay in processing." In Volume II Claims Incurred CI.5 Collision page 35 it states "A special collision IBNR provision of \$13 million was added to the 2013/14 year to account for the significant lag in claim reporting as a result of the high claims frequency."

- a) Please confirm that up to October 31, 2013 there was no indication of a significant change (increase or decrease) to the collision severity and frequency.
- b) Please reconcile the \$16.5 million bulk IBNR to the special collision IBNR provision of \$13 million.
- c) Please file the detailed actuarial analysis supporting the actuary's determination of the requirement for the bulk IBNR of \$16.5 million.

#### **RESPONSE:**

- a) Confirmed. As of October 31, 2013, the actual reported for accident year 2013/14 was \$178M compared to budget reported of \$177M.
- b) Per Exhibit 4 of the Actuarial Report as at February 28, 2014, as presented in Volume III, AI.7, bulk IBNR of \$13.0 million and \$3.5 million were added for Collision and Property Damage respectively.

c) Refer to PUB (MPI) 1-39.

CAC (MPI) 1-28 Reference: Actuarial Principles and Practices

Please provide an analysis of changes to actuarial principles and practices since the last GRA hearings impacting MPI's Policy and Liability valuations, if any.

# **RESPONSE:**

The Canadian Institute of Actuaries provides updated Standards of Practice and guidance material on their website <a href="http://www.cia-ica.ca/home">http://www.cia-ica.ca/home</a>. The Appointed Actuary has not made any material changes to the Basic Appointed Actuary's report as a result of changes to actuarial principles and practices since the last GRA hearings.

# CAC (MPI) 1-29

Reference: On page 3 of section SM.6 the corporation states that a full review of all PIPP claims was completed in the 2013/14 year

because of apparent under-reserving of claims.

a) Please specify what led the corporation to believe there was under-reserving of claims.

- b) Please give specifics in regards to how the review was done what reserving guidelines were used, what claims were reviewed, what coverages were impacted and by how much. If a report was created please provide the report.
- c) Should the increase in case reserves not coincide with a decrease in expected development on claims in the Actuary's report? If not, why not?

#### **RESPONSE:**

a) As of October 31, 2012, the Chief Actuary identified a discrepancy between the paid development patterns and the incurred development patterns on indexed PIPP benefits (with the most significant discrepancy on Weekly Indemnity benefits). The development patterns indicated that paid losses and open claim counts at each stage of development were trending at higher than expected levels, while incurred losses and case reserves were trending at significantly lower than expected levels. See CAC (MPI) 2-5, part (b) of the 2014 Rate Application.

Given that paid losses and open claim counts were at higher than expected levels, the Chief Actuary did not believe there was a change in the ultimate liability for these loss years (as suggested by the incurred). The Chief Actuary recommended to the Appointed Actuary that more reliance be placed on the paid loss data until the issue was rectified by the Corporation. As a result, the Appointed Actuary changed the IBNR methodology to recognize the 'higher of'

- incurred or paid Bornheutter-Ferguson method for the first five years, instead of only three years (see page 24 of the October 2012 Appointed Actuary's report).
- b) All open PIPP claims were reviewed to ensure that current reserving guidelines were being followed. There were no changes to reserving guidelines. The attached table shows the reported incurred losses in the month of March 2013 and for the entire 2013/14 fiscal year for Weekly Indemnity and Accident Benefits Other Indexed benefits, along with a comparison to budget.
- c) The question implies that an increase in case reserves should always coincide with a decrease in expected development; however, this is not the case. For example, for Weekly Indemnity coverage the Corporation relies on case estimates to determine IBNR estimates on claims that are three to ten years old (five to ten years old in the 2012/13 Actuarial Reports). The Corporation held relatively small amounts of IBNR in these accident years, as it was assumed that all open PIPP claims more than three years old were adequately case reserved. However, the March 2013 reserve review increased case estimates on these loss years by nearly \$30 million, which was unexpected relative to the current estimates (which assumed very small amounts of development); and therefore, did not result in an offsetting decrease in expected development.



Losses - Mar 2013 to Feb 2014

Losses - Mar 2013

		R	eported Incurred			ABWI	ABO Indexed
	Weekly	ABO	-		Actual -	Weekly	ABO
	Indemnity	Indexed	Total	Budget	Budget	Indemnity	Indexed
1994	\$1,456,974	-\$338,261	\$1,118,713	\$136,039	\$982,674	\$215,563	-\$84,324
1995	\$1,607,799	\$300,053	\$1,907,852	\$153,048	\$1,754,804	\$8,265	\$338,332
1996	\$202,111	-\$153,621	\$48,490	\$106,943	-\$58,453	-\$159,697	\$79,399
1997	\$1,454,284	\$620,165	\$2,074,449	\$112,035	\$1,962,414	\$420,813	\$59,524
1998	\$1,062,975	\$398,352	\$1,461,327	\$102,288	\$1,359,039	\$84,347	\$619,211
1999	\$483,300	-\$250,916	\$232,384	-\$8,622	\$241,006	\$1,401,248	\$57,528
2000	-\$1,168,960	-\$111,515	-\$1,280,475	-\$409,548	-\$870,927	-\$22,374	\$71,394
2001	\$1,274,066	\$661,213	\$1,935,280	-\$870,725	\$2,806,005	\$41,458	-\$18,044
2002	\$755,126	\$673,251	\$1,428,377	-\$429,145	\$1,857,522	\$401,387	\$69,408
2003	\$2,521,398	\$624,650	\$3,146,048	-\$178,918	\$3,324,966	\$1,728,471	\$412,002
2004	\$602,861	\$1,677,201	\$2,280,062	\$228,845	\$2,051,216	\$1,438,239	-\$40,414
2005	\$1,258,679	-\$931,897	\$326,782	\$477,012	-\$150,230	\$2,596,099	-\$25,273
2006	\$6,113,196	\$2,595,112	\$8,708,309	\$632,910	\$8,075,399	\$4,004,357	\$407,001
2007	\$3,360,217	\$2,119,508	\$5,479,725	\$914,369	\$4,565,356	\$5,614,494	\$892,118
2008	\$8,079,512	\$2,197,855	\$10,277,367	\$3,742,395	\$6,534,973	\$7,454,661	\$1,390,024
2009	\$7,556,826	\$1,039,542	\$8,596,369	\$6,627,553	\$1,968,816	\$5,539,237	\$232,024
2010	\$15,320,074	\$1,102,160	\$16,422,234	\$10,846,298	\$5,575,936	\$12,398,457	\$1,164,557
2011	\$16,445,813	\$6,430,867	\$22,876,680	\$17,752,523	\$5,124,157	\$7,315,846	\$2,264,113
2012	\$13,314,128	\$10,856,663	\$24,170,791	\$13,944,358	\$10,226,433	\$2,968,343	\$1,758,196
2013	\$24,290,326	\$53,356,291	\$77,646,617	\$79,824,873	-\$2,178,256	\$644,500	\$2,822,086
Total	\$105,990,705	\$82,866,674	\$188,857,379	\$133,704,532	\$55,152,847	\$54,093,713	\$12,468,863
Total (Excluding 2013)	\$81,700,379	\$29,510,383	\$111,210,762	\$53,879,659	\$57,331,103	\$53,449,213	\$9,646,777

# CAC (MPI) 1-30 Reference: AI.10

Preamble: On page 8 of Charter PDR – AI.10 it states that "The Corporation recently completed an RFP process with the purpose of acquiring and implementing predictive analytics software. This software will primarily be leveraged to predict claims fraud cases with the anticipation of increasing claim recoveries associated with claims fraud."

Please give further details on how this software will be used. Specifically, what variables will be used as input to the models, will it be used to scan claims for potential fraud and will it be used prior to claims being made or only after the claim is made.

#### **RESPONSE:**

CAC (MPI) 1-31 Reference: Claims Incurred section page 11

Please provide all of the figures used in the calculation of the All year Trend for Claim Count Incurred > \$0, Severity and Ultimate.

# **RESPONSE:**

### **Weekly Indemnity Ultimate Losses**

Accident Year	Claim Count Incurred >\$0	Severity	Ultimate (\$000)	Annual % Change	Last Year's Forecast (\$000)	Variance to Forecast (\$000)
2001/02	2,221	20,531	45,599	-11.07%	44,305	1,294
2002/03	2,196	23,845	52,363	14.83%	52,078	285
2003/04	2,110	24,328	51,332	-1.97%	48,700	2,632
2004/05	2,041	21,741	44,373	-13.56%	43,158	1,215
2005/06	1,943	27,610	53,646	20.90%	51,883	1,763
2006/07	2,104	31,927	67,175	25.22%	60,458	6,716
2007/08	2,054	31,056	63,790	-5.04%	60,012	3,778
2008/09	1,884	34,166	64,369	0.91%	61,762	2,607
2009/10	1,877	29,657	55,665	-13.52%	59,631	-3,965
2010/11	1,926	31,323	60,327	8.37%	61,014	-687
2011/12	1,830	35,767	65,453	8.50%	54,396	11,057
2012/13	2,031	31,474	63,923	-2.34%	49,034	14,889
2013/14	1,893	32,064	60,698	-5.05%	55,122	5,576
5-year Trend	1,953	33,547	65,311	2.14%	49,540	15,772
10-year Trend	1,876	35,193	66,314	1.78%	57,590	8,724
All year Trend	1,831	36,121	66,966	1.95%	60,188	6,778
		Fore	cast/Projecti	ons		
2014/15	1,876	32,564	61,082	0.63%	55,996	5,086
2015/16	1,861	33,080	61,553	0.77%	56,871	4,681
2016/17	1,846	33,604	62,023	0.76%	57,746	4,277
2017/18	1,831	34,136	62,493	0.76%	58,621	3,871
2018/19	1,816	34,677	62,962	0.75%	-	-

# CAC (MPI) 1-32

Reference: With reference to the various trends used to forecast severity,

frequency and ultimate incurreds it is normal practice for companies with large amounts of data to fit distributions to

their loss history to predict these trends.

Why does the Corporation rely on simple linear trends instead of using more advanced methods to determine these trends?

#### **RESPONSE:**

The Corporation conducts extensive modeling of claims and other financial variables as part of its forecasting, stochastic modeling and DCAT analysis. The Corporation does not rely on 'simple' linear trends for all of its forecasts. The Corporation makes its best estimate claims forecast based on many factors, including:

- Historical information (e.g. raw data)
- Business insight (e.g. system changes, external labour agreements)
- Actuarial information (e.g. changes in reserving patterns)
- External information (e.g. forecasted interest rates)

The Corporation must also make judgments on the relevance of the historical claims trends for predicting future claims trends. Some current examples include:

- Will the recent increases in non-catastrophic hail experience continue?
- Will the recent increases in collision severity continue?
- Will injury claims continue to show flat or decreasing frequency per HTA unit?

CAC (MPI) 1-33 Reference: Page 55 of the Claims

**Incurred section** 

Please reconcile the Claims Incurred figures shown for the 2010/11 and 2011/12 years to the figures shown for those years on the table on page 50.

### **RESPONSE:**

The correct data for page 55 of the Claims Incurred section is:

#### Total Basic Net Claims Incurred including Claims Provisions (\$000)

Fiscal Year	Claims Incurred	ULAE	Change in ILAE	Change in Reinsurance Ceded	Reinsurance Financial Adjustments		Total Net Claims Incurred
2009/10	530,583	21,703	8,111	-23,903	-484	-20,221	515,789
2010/11	303,266	31,500	2,669	-3,151	-422	-792	333,070
2011/12	571,977	31,108	10,342	-7,073	-377	6,061	612,038
2012/13	609,012	32,003	13,801	-8,110	-263	14,844	661,287
2013/14	680,205	32,316	12,579	-2,454	-414	25,203	747,435

The information has been updated as there was a small error noted between categories, which does not impact the totals.

The correct table for page 50 is:

#### **Total Basic Claims Incurred (\$000)**

		C	Change in IB	NR			
Fiscal Year	Reported	Interest Rate Impact	All Other Changes	Total	Claims Incurred	Last Year's Forecast	Variance to Forecast
2009/10	523,350			7,233	530,583	530,536	47
2010/11	573,937			-270,671	303,266	302,862	404
2011/12	556,324			15,653	571,977	576,106	-4,129
2012/13	581,772	4,042	23,198	27,240	609,012	608,747	265
2013/14	685,374	-19,610	14,441	-5,169	680,205	609,946	70,259

The claims incurred amounts reconcile.



CAC (MPI) 1-34 Reference: Page 55 of the Claims
Incurred section

Please reconcile the ULAE figures shown for the 2009/10 to 2011/12 years to the figures shown for those years on the table on page 51.

### **RESPONSE:**

Refer to CAC (MPI) 1-33 for the correct table for Page 55 of the Claims Incurred Section.

The information has been updated as there was a small error noted between categories, which does not impact the totals.

The correct table for page 51 is:

#### **Unallocated Loss Adjustment Expenses (\$000)**

Fiscal Year	Manitoba Health	All Other	Total	Last Year's Forecast	Variance to Forecast
2009/10	14,789	6,914	21,703	21,522	181
2010/11	20,478	11,022	31,500	28,049	3,451
2011/12	23,236	7,872	31,108	31,120	-12
2012/13	23,538	8,465	32,003	31,667	336
2013/14	24,829	7,487	32,316	33,411	-1,095

The two tables now reconcile.

CAC (MPI) 1-35 Reference: Page 55 of the Claims
Incurred section

Please reconcile the Change in ILAE figures shown for the 2012/13 year to the figure shown for that year on the table on page 52.

# **RESPONSE:**

Refer to CAC (MPI) 1-33 for the correct table for Page 55 of the Claims Incurred Section.

The information has been updated as there was a small error noted between categories, which does not impact the totals.

The correct table for page 52 is:

Change in ILAE Provision (\$000)

Fiscal Year	Change in Unpaid Claims	Change in IBNR	Change in ILAE	Last Year's Forecast	Variance to Forecast
2012/13	67,472	-5,756	13,801	6,273	7,528
2013/14	92,195	-5,168	12,579	3,217	9,362

The two tables now reconcile.

CAC (MPI) 1-36 Reference: Page 55 of the Claims

**Incurred section** 

Please explain what the Other Financial Adjustments are and where in the application these figures are broken down.

# **RESPONSE:**

The Other Financial Adjustments represents the Allowance for Doubtful Accounts.

# CAC (MPI) 1-37

Reference: Page 35 of the Claims Incurred section and the February 28,

2014 Actuary's Report

Please explain how the special collision IBNR provision of \$13 million was calculated.

### **RESPONSE:**

Refer to CAC (MPI) 1-27.

CAC (MPI) 1-38 Reference: Pre-Filed Testimony page 13

Preamble: "The Corporation has done many things in the past to ensure that the biggest expense it has – claims costs – is managed with the state-of-the-art systems".

Please explain, in general terms, how the state-of-the-art systems aided the Corporation in controlling claims costs.

# **RESPONSE:**

# CAC (MPI) 1-39

Preamble: Direct claims incurred, per Volume III AI.6 Part 1A page 2 Universal Compulsory Automobile Insurance Annual Financial Statement, increased from \$669,398,000 in 2013 to \$749,889,000 in 2014; an increase of \$80,491,000.

Please explain and, if possible, quantify the financial impact the state-of-the-art systems had in controlling the increased claims incurred of about \$80.5 million for this period.

### **RESPONSE:**

CAC (MPI) 1-40 Reference: Pre-Filed Testimony page

14 and SM.1 page 8 Value

to Manitobans

Preamble: "...initiatives undertaken by the Corporation have resulted in cost savings or cost avoidance of \$60 million per year".

- a) In general terms, please explain the difference between cost savings and cost avoidance.
- b) Please provide a table as follows:

Name of Initiative	Cost Category (Claims Incurred or Expenses)	Amount of Cost Avoidance (\$000)	Amount of Cost Savings (\$000)	Total Cost Avoidance and Savings (\$000)
Total				\$60,575

c) Please provide the analysis undertaken, by initiative, in estimating the annual savings of approximately \$60 million.

## **RESPONSE:**

a) b) and c)

CAC (MPI) 1-41 Reference: Pre-Filed Testimony page 14, Volume III AI.6

Preamble: "Despite the increase in the number of claims this year, total corporate claims and operating expenses are lower than last year".

Per Corporate Annual Audited Financial Statements

<b>Expense Category</b>	2014 (\$000)	2013 (\$000)	Increase (Decrease) (\$000)
Claims expense	132,564	126,848	5,716
Loss prevention/	15,558	15,881	(323)
Road safety			
Operating	115,840	124,828	(8,988)
Regulatory/Appeal	3,791	3,424	367
Total	267,753	270,981	(3,228)

Per Annual Audited Universal Compulsory Automobile Insurance Financial Statements (Basic Insurance)

<b>Expense Category</b>	2014 (\$000)	2013 (\$000)	Increase (Decrease) (\$000)
Claims expense	114,552	108,587	5,965
Loss prevention/	12,816	13,031	(215)
Road safety			
Operating	67,982	63,758	4,224
Regulatory/Appeal	3,766	3,392	374
Total	199,116	188,768	10,348

a) Please confirm that the Corporate expenses decreased from 2013 to 2014 by \$3,228,000 and Basic Insurance expenses for the same years increased by \$10,348,000.

b) Please explain and provide a detailed analysis for the opposite financial impact between Corporate and Basic Insurance relating to operational efficiency from 2013 to 2014.

#### **RESPONSE:**

- a) Confirmed. See attached schedule for breakdown between normal operations, initiatives and ongoing expenses, 2012/13 versus 2013/14.
- b) There are two components that impact the amounts allocated to Basic between years; the change in the Basic percentage allocated and the change in the total corporate expense to be allocated.

With respect to normal operations (see attached): (in \$000's)

Corporate normal operating expenses increased from \$249,390 in 2012/13 to \$252,708 in 2013/14, an increase of \$3,318. If the allocation percentage had not changed between 2012/13 and 2013/14, this would have resulted in an increase to Basic expenses of \$2,500 (\$3,318 \* 2013/14 allocation of 74.5%). However, not only did the total expense to be allocated increase, the percentage to be allocated to Basic also increased from an overall 72.0% to 74.5% or 2.5%. This increase in allocation percentage accounts for an additional \$6,400 (\$249,390 \* 2.5% (rounded)). The total impact to Basic normal operations is \$8,900.

With respect to Initiatives there is an even larger change in the percentage allocated to Basic. As has been explained, the allocation for initiatives is project specific, so as projects in any given year are related to one line of business more than another it can significantly impact the overall % allocated. This was the case in 2012/13 when there was a significant project unrelated to Basic. Then in 2013/14 when the projects were more evenly distributed, appropriately, a higher % was allocated to Basic. As can be seen on the attached schedule, even though total corporate initiatives spending decreased from 2012/13 to 2013/14 by more than \$10 million, the amount allocated to Basic only decreased by \$1.3 million.

#### Specific allocation drivers:

The primary allocator used during the allocation process is the proportion of claims incurred costs as they relate to each line of business. The claims incurred percentage was greater in 2013/14 as compared to 2012/13 (85.5% vs. 84.2%).

There are various other factors that impact the allocation of expenses to Basic including direct expenses, allocated occupancy expenses, as well as building expenses (closure of two buildings in 2012/13 relating to other lines of business increased the amount of building expenses allocated to Basic in 2013/14 by 14.3% or approximately \$1.7 million).

The above explains why even though total corporate expenses decrease between 2012/13 and 2013/14, the allocated expenses to Basic legitimately increased.

#### 2015 GRA Compare 2013/14 Expenses to 2012/13 Expenses

2015 GRA Compare 2013/14 Expenses to 2012/13 Expenses												
		NormalOps			Initiatives			atives Ongoin	ıg		Total	
CORPORATE (000's)	2012/13	2013/14	Change	2012/13	2013/14	Change	2012/13	2013/14	Change	2012/13	2013/14	Change
Compensation - Salaries	118,277	119,695	1,418	1,201	848	(353)	-	-	-	119,478	120,543	1,065
Compensation - Overtime	2,317	3,030	713	126	132	6	-	-	-	2,443	3,162	719
Compensation - Benefits Compensation - H & E Tax	27,820	27,533 2,503	(287) (23)	98 24	-	(98) (24)	-	-	-	27,918 2,550	27,533 2,503	(385) (47)
•	2,526						•				153,741	1,352
Subtotal	150,940	152,761	1,821	1,449	980	(469)	-	-	-	152,389	155,741	1,352
Data Processing	17,449	18,089	640	12,673	4,965	(7,708)	3,671	7,170	3,499	33,793	30,224	(3,569)
Special Services Building Expenses	7,026 12,509	6,916 12,434	(110) (75)	880	486	(394)	-		-	7,906 12,509	7,402 12,434	(504) (75)
Loss Prev/Safety Program	4,788	4,489	(299)	887	939	52	-	-	-	5,675	5,428	(247)
Telephone/Telecommunications	3,122 3,202	3,050 3,307	(72) 105	6	224 23	218 24	-	-	-	3,128 3,201	3,274 3,330	146 129
Advertising & PublicInfo Printing, Stationery & Supplies	3,202	4,464	554	(1) 16	23 37	21		-	-	3,926	4,501	575
Postage	4,007	4,157	150	1	1	-	-	-	-	4,008	4,158	150
Regulatory/Appeal Expenses Travel & Vehide Expense	3,441 1,519	3,707 1,619	266 100	- 8	- 40	- 32	-	-		3,441 1,527	3,707 1,659	266 132
Driver Education Program	3,685	3,743	58	-	-	-	-	-	-	3,685	3,743	58
Grantin Lieu of Taxes	1,761	1,783	22	- 1 040	-	- (4.700)	-	-	-	1,761	1,783	22
Furniture & Equipment/DP Equip Merchant Fees	991 8,571	1,335 9,176	344 605	1,849	50 -	(1,799)		-	-	2,840 8,571	1,385 9,176	(1,455) 605
Other	6,880	6,279	(599)	152	130	(22)	-	-	-	7,032	6,409	(623)
Subtotal	82,861	84,548	1,689	16,471	6,895	(9,576)	3,671	7,170	3,499	103,001	98,613	(4,390)
					0,000			7,110				
Amortization of Capital Investments  Amortization of Deferred Development	6,742 8,847	6,552 8,847	(190)	-	-	-	-	-	-	6,742 8,847	6,552 8,847	(190)
Ť												
TOTAL	249,390	252,708	3,318	17,920	7,875	(10,045)	3,671	7,170	3,499	270,981	267,753	(3,228)
		NormalOps			Initiatives			Ongoing			Total	
BASIC (000's)	2012/13	2013/14	Change	2012/13	2013/14	Change	2012/13	2013/14	Change	2012/13	2013/14	Change
Compensation - Salaries	84,658	87,897	3,239	827	705	(122)	-	-	-	85,485	88,602	3,117
Compensation - Overtime Compensation - Benefits	1,735 19,798	2,343 20,174	608 376	92 70	106	14 (70)	-	-	-	1,827 19,868	2,449 20,174	622 306
Compensation - H & E Tax	1,810	1,834	24	17	-	(17)	-	-	-	1,827	1,834	7
Subtotal	108,001	112,248	4,247	1,006	811	(195)	-	-	-	109,007	113,059	4,052
Data Processing	13,132	14,188	1,056	3,320	2,638	(682)	2,840	5,650	2,810	19,292	22,476	3,184
Special Services	4,160	4,683	523	697	481	(216)	-	-	-	4,857	5,164	307
Building Expenses Loss Prev/Safety Program	7,316 4,429	9,049 4,160	1,733 (269)	- 746	803	- 57	-	-		7,316 5,175	9,049 4,963	1,733 (212)
Telephone/Telecommunications	2,280	2,411	131	6	177	171	-	-	-	2,286	2,588	302
Advertising & Public Info	2,302 1,483	2,466 1,780	164 297	- 11	18 18	18 7	-	-	-	2,302 1,494	2,484 1,798	182 304
Printing, Stationery & Supplies Postage	2,515	2,659	144	1	10	- '	-	-	-	2,516	2,660	144
Regulatory/Appeal Expenses	3,392	3,667	275		-	-	-	-	-	3,392	3,667	275
Travel & Vehide Expense Driver Education Program	1,047 3,103	1,148 3,200	101 97	- 6	33	27	-	-	-	1,053 3,103	1,181 3,200	128 97
Grantin Lieu of Taxes	1,282	1,346	64	-	-	-	-	-	-	1,282	1,346	64
Furniture & Equipment/DP Equip Merchant Fees	734	1,043 6,671	309 351	538	25	(513)	-	-		1,272	1,068 6,671	(204) 351
Other	6,320 5,175	4,823	(354)	118	103	(15)	-	-	-	6,320 5,293	4,926	(368)
									2212			
Subtotal	58,670	63,294	4,622	5,443	4,297	(1,146)	2,840	5,650	2,810	66,953	73,241	6,287
Amortization of Capital Investments	5,012	4,998	(14)	-	-	-	-	-	-	5,012	4,998	(14)
Amortization of Deferred Development	7,796	7,818	22	-	-	-	-	-	-	7,796	7,818	22
TOTAL	179,479	188,358	8,877	6,449	5,108	(1,341)	2,840	5,650	2,810	188,768	199,116	10,348
		NormalOps			Initiatives			Ongoing			Total	
BASIC ALLOCATION %	2012/13	2013/14	Change	2012/13	2013/14	Change	2012/13	2013/14	Change	2012/13	2013/14	Change
Compensation - Salaries	71.6%	73.4%	1.9%	68.9%	83.1%	14.3%			·	71.5%	73.5%	2.0%
Compensation - Overtime	74.9%	77.3%	2.4%	73.0%	80.3%	7.3%				74.8%	77.5%	2.7%
Compensation - Benefits Compensation - H & E Tax	71.2% 71.7%	73.3% 73.3%	2.1% 1.6%	71.4% 70.8%		-71.4% -70.8%				71.2% 71.6%	73.3% 73.3%	2.1% 1.6%
Data Processing	75.3%	78.4%	3.2%	26.2%	53.1%	26.9%	77.4%	78.8%	1.4%	57.1%	74.4%	17.3%
Special Services Building Expenses	59.2% 58.5%	67.7% 72.8%	8.5% 14.3%	79.2%	99.0%	19.8% 0.0%				61.4% 58.5%	69.8% 72.8%	8.3% 14.3%
Loss Prev/Safety Program	92.5%	92.7%	0.2%	84.1%	85.5%	1.4%				91.2%	91.4%	0.2%
Telephone/Telecommunications	73.0%	79.0%	6.0%	100.0%	79.0%	-21.0%				73.1%	79.0%	6.0%
Advertising & PublicInfo Printing, Stationery & Supplies	71.9% 37.9%	74.6% 39.9%	2.7% 1.9%	0.0% 68.8%	78.3% 48.6%	78.3% -20.1%				71.9% 38.1%	74.6% 39.9%	2.7% 1.9%
Postage	62.8%	64.0%	1.2%	100.0%	100.0%	0.0%				62.8%	64.0%	1.2%
Regulatory/Appeal Expenses Travel & Vehide Expense	98.6% 68.9%	98.9% 70.9%	0.3% 2.0%	75.0%	Q7 E0/	0.0% 7.5%				98.6%	98.9% 71.2%	0.3% 2.2%
Driver Education Program	68.9% 84.2%	70.9% 85.5%	1.3%	75.0%	82.5%	7.5% 0.0%				69.0% 84.2%	71.2% 85.5%	1.3%
Grantin Lieu of Taxes	72.8%	75.5%	2.7%			0.0%				72.8%	75.5%	2.7%
Furniture & Equipment/DP Equip Merchant Fees	74.1% 73.7%	78.1% 72.7%	4.1% -1.0%	29.1%	50.0%	20.9% 0.0%				44.8% 73.7%	77.1% 72.7%	32.3% -1.0%
Other	75.7% 75.3%	76.8%	1.5%	77.6%	79.2%	1.6%				75.7% 75.3%	76.8%	1.5%
Subtotal	70.00/	74.00/	4.40/	22.00/	60.00/	20.20/	77 40/	70.00/	4.40/	CE 00/	74.00/	0.00/
Subtotal	70.8%	74.9%	4.1%	33.0%	62.3%	29.3%	77.4%	78.8%	1.4%	65.0%	74.3%	9.3%
Amortization of Capital Investments Amortization of Deferred Development	74.3% 88.1%	76.3% 88.4%	1.9% 0.2%			0.0% 0.0%			0.0%	74.3% 88.1%	76.3% 88.4%	1.9% 0.2%
TOTAL	00.1%	00.470	U.Z /0			0.076				00.176	00.470	U.Z 70
	72.0%	74.5%	2.6%	36.0%	64.9%	28.9%	77.4%	78.8%	1.4%	69.7%	74.4%	4.7%

4.7%

78.8%

1.4%

69.7%

77.4%

64.9%

28.9%

36.0%

72.0%

74.5%

2.6%

CAC (MPI) 1-42 Reference: Pre-Filed Testimony page 14

Preamble: "...the Corporation acknowledges the impact of a second year of a significant financial loss and has taken the following serious management actions in implementing cost containment strategies".

Please provide the anticipated annual cost savings for fiscal year 2015/16 for each cost containment strategy in the following table relating to Basic Insurance:

Cost Containment Strategy	Estimated Savings (\$000)
Hiring Freeze	
Out-of-Province Travel	
Expenses for Meetings	
Total	

### **RESPONSE:**

The amounts are not available at this time.

CAC (MPI) 1-43 Reference: Pre-Filed Testimony page 15

Preamble: "...a committee of senior managers has been formed to identify, investigate and implement operating cost reduction initiatives..."

Please file a copy of the Terms of Reference relating to this committee.

### **RESPONSE:**

CAC (MPI) 1-44 Reference: Pre-Filed Testimony

**PowerPoint Presentation** 

page 2

Preamble: "...Address physical damage claims cost ...Offer customer service delivery options at lower operational costs..."

- a) In general terms, please elaborate on the anticipated types of service delivery options at a lower operational cost to be offered to customers.
- b) Please elaborate on the actions required in preparing the organization for the digital economy and in preparing the organization to adapt to meet new operational realities.

# **RESPONSE:**

a) and b)

CAC (MPI) 1-45 Reference: Corporate Strategic Plan

2014-2018

AI.6 Part 2 Page 12

Preamble: A strategy relating to Goal 2 states "To maintain claims expense per reported claim at a maximum of 50 per cent of industry average".

- a) Please confirm claims expense per reported claim for fiscal years 2012/13 and 2013/14 were maintained within 50 per cent of the industry average.
- b) Please file a copy of the detailed calculations, assumptions, data sources and analyses which support that claims expense per reported claim for Basic Insurance were maintained at 50 per cent of industry average. If the calculation is only performed at a corporate level, please file a copy of the corporate calculation and analyses.

## **RESPONSE:**

a) and b)

# CAC (MPI) 1-46 Reference: Corporate Budget

- a) Please provide the approved corporate budget for ongoing operations and for new projects and initiatives for the 2013/14 fiscal year for Basic Insurance and the Corporation.
- b) Please indicate when the 2013/14 budget was approved and file a copy of the Budget and Operations Committee of the Board of Directors Minute approving the Budget.
- c) Please show variances between the approved budget and actual results and explain any significant variances.
- d) Please provide the budgetary guideline for ongoing operations in 2013/14 and indicate whether this guideline was met.
- e) Please provide the approved budget for ongoing operations and for new projects and initiatives for the 2014/15 fiscal year for Basic Insurance and the Corporation.
- f) Please indicate when the 2014/15 budget was approved and file a copy of the Budget and Operations Committee of the Board of Directors Minute approving the Budget.
- g) Please provide the budgetary guideline for ongoing operations in 2014/15 and indicate whether this guideline was met.

#### **RESPONSE:**

a) to g)

CAC (MPI) 1-47 Reference: SM.1 Value to Manitobans page 19

Preamble: Service Centre Model. "Flexible staffing opportunities, where staff cross-train in more than one role, resulting in higher service availability without adding staff.."

- a) Please describe the professional and other training required for an individual to be an expert service centre employee.
- b) Please file a sample job description a qualified service centre employee would follow.

## **RESPONSE:**

a) and b)

# CAC (MPI) 1-48 Reference: SM.2 Benchmarking

Preamble: "As indicated previously, based on the Corporation's business model a higher FTE per \$100 million of GPW is expected." Currently, as reported, the FTE's per \$100 million of GPW for MPI is 153.54 compared to, for example, the Canadian Personal Auto Group of 103.07.

In general terms, please elaborate and describe the required adjustment to the MPI value to be comparable to the Canadian Personal Auto Group.

#### **RESPONSE:**

CAC (MPI) 1-49 Reference: SM.4 Projected Financial Results Page 11

Preamble: 2014/15 Comparative Statement

The comparative statement presented represents the 2013/14 comparative multiyear statement and not the 2014/15. For the record, please file the correct comparative multi-year statement.

### **RESPONSE:**

Please see attachment with 2014/15 comparative multi-year statement.

# Pro Forma Finanancial Statements Manitoba Public Insurance

Multi-year Statement - 2014/15 Comparative

PF.5 BASIC

(C\$ 000s, except where noted)	2014 GRA 2015P	2015 GRA 2015 Budget	Increase / (Decrease)	Ref.	Increase / (Decrease)
(27 2223, 225, 2222,	\$	\$	\$		%
Net Premiums Written					
Motor Vehicles	805,344	795,233	(10,111)	(1)	(1.26)
Drivers	47,548	46,992	(556)		(1.17)
Reinsurance Ceded	(14,183)	(13,661)	522		(3.68)
Total Net Premiums Written	838,709	828,564	(10,145)		(1.21)
Net Premiums Earned					
Motor Vehicles	783,511	769,872	(13,640)	(2)	(1.74)
Drivers	44,846	44,330	(516)	. ,	(1.15)
Reinsurance Ceded	(14,183)	(13,722)	`461 <sup>°</sup>		(3.25)
Total Net Premiums Earned	814,174	800,480	(13,695)		(1.68)
Service Fees & Other Revenues	20,546	19,799	(747)		(3.64)
Total Earned Revenues	834,720	820,279	(14,442)		(1.73)
Net Claims Incurred					
Net Claim Incurred	644,705	624,777	(19,928)	(3)	(3.09)
Claims Expense	118,414	116,249	(2,164)	(6)	(1.83)
Road Safety/Loss Prevention	11,587	11,350	(237)	(6)	(2.05)
Total Claims Costs	774,706	752,376	(22,329)		(2.88)
Expenses					
Operating	69,942	73,568	3,626	(6)	5.18
Commissions	32,430	33,496	1,066	(4)	3.29
Premium Taxes	24,851	24,426	(425)		(1.71)
Regulatory/Appeal	3,312	3,261	(51)	(6)	(1.55)
Total Expenses	130,535	134,751	4,217		3.23
Underwriting Income (Loss)	(70,520)	(66,849)	3,671		
Investment Income	63,027	28,807	(34,220)	(5)	(54.29)
Net Income (Loss) from Operations	(7,493)	(38,042)	(30,549)		407.69
Claims Expense	(6) 118,414	116,249	(2,164)		(1.83)
Road Safety/Loss Prevention	(6) 118,414 (6) 11,587	110,249	(2,164)		(2.05)
Operating	(6) 11,367 (6) 69,942	73,568	3,626		5.18
Regulatory/Appeal	.,	3,261	(51)		(1.55)
Total Expense	(6) 3,312 203,255	204,429	1,173		0.58
Expenses					
Normal Operations	188,400	196,248	7,848	(6)	4.17
Initiatives Implementation	2,276	5,460	3,184	(6)	139.89
Initiatives Ongoing	12.579	2,720	(9,859)	(6)	(78.38)
Total Expense	203,255	204,428	1,173	(0)	0.58
Total Expelle	200,200	204,420	1,173		0.50

# **Explanation of Significant Variances**

	Catamana		Fundametica
Ref.	Category	(C\$ 000s)	Explanation
(1)	Mater Vehicles written	005 244	2014 CDA Forecost
(1)	Motor Vehicles - written	•	2014 GRA Forecast
			Upgrade Factor
		, ,	Rate change Difference (1.80% vs 0.90%)
			Fleet Rebate differences
		. ,	Immobilizer discounts
			Actual Premium Written from 2013/14 less than expected
		/95,233	2015 GRA Forecast
(2)	Motor Vehicles - earned	783,511	2014 GRA Forecast
, ,		(10,000)	Premium Written less than expected compared to 2014 GRA per above
		, ,	Unearned premium rate slightly higher in 2015 GRA
			2015 GRA Forecast
(3)	Claims Incurred	644,705	2014 GRA Forecast
		14,526	Increase in collision claims based on change of historical trends
		(27,927)	Decrease in PIPP case reserves due to expected increase in interest rates
		2,182	Increase in comprehensive claims based on change of historical trends
		3,532	Increase in unallocated loss adjustment expenses
			due to higher costs from Collaborative Estimating Initiative
		(11,738)	Decrease in Internal Loss Adjustment Expenses due to
			expected increase in interest rate forecast
		(503)	Change in bodily injury claims, property claims, Other.
			Refer to Claims Incurred section in Volume II for a detailed explanation
		624,777	2015 GRA Forecast
(4)	Commissions	32,430	2014 GRA Forecast
		600	Greater than expected unearned premium carry forward from prior year
		466	Slightly greater than expected forecasted effective commission rates
		33,496	2015 GRA Forecast
(5)	Investment Income	63 027	2014 GRA Forecast
(0)	invocation income	•	Higher fixed income loss due to higher interest rates in 2015 GRA for 2014/15
		, ,	Rebalancing occurs in 2014/15 in 2014 GRA but not until 2016/17 in 2015 GRA
		(0,010)	so fewer gains are relized in 2014/15
		(2 925)	Decrease in Real Estate and Infrastructure gain
		(2,323)	due to different market values used to calculate return.
		(803)	Change in assumptions of writedown and allocation to Basic
		(092)	Refer to Investment Income section in, Table 11.3, Vol II for a detailed explanation
		28,807	·
		20,007	2010 01011 0100001

(6) Normal Operations Expense	188,400	2014 GRA Forecast
	991	Salaries increase includes the new Downtown Allowance and Health and Wellbeing Flexible
		Spending Plan, as well as higher salaries allocated to Basic due to updated WCCCR and
		Claims Incurred allocators.
	3,875	Data Processing increase due to IBM Data Centre costs moved from ongoing to normal operations, offset by a decrease in software, maintenance and computer costs
	(1,879)	Amortization of Capital mainly due to 2014 GRA error in Data Processing amortization
	4,625	Increase due to the movement of amortization of Deferred Development for Disaster Recovery
		and HRMS from Initiatives Ongoing (2014 GRA) to Normal Operations (2015 GRA)
	236	Various miscellaneous expense changes
	196,248	2015 GRA Forecast (\$1.8 million higher due to 0.7% higher allocation to Basic)
(6) Initiative Implementation Expense	2,276	2014 GRA Forecast
	1,428	Salaries increase due to updated resource requirements related to various projects
	1,356	Data processing increase mainly due to expected costs for the Security Strategy
	400	Various miscellaneous expense changes
	5,460	2015 GRA Forecast
(6) Initiative Ongoing Expense	12,579	2014 GRA Forecast
	(4,741)	Data processing mainly due to transfer of 80% IBM Data Centre to Normal Operations
	(5,277)	Decrease due to the movement of amortization of Deferred Development for Disaster Recovery
		and HRMS from Initiatives Ongoing (2014 GRA) to Normal Operations (2015 GRA)
		Amortization of BI3/Fineos and Legal Management projects delayed
	(140)	Various miscellaneous expense changes
	2,421	2015 GRA Forecast

CAC (MPI) 1-50 Reference: SM.4 Projected Financial

Results 2015/16 Page 14

Preamble: Downtown Allowance and Health and Wellbeing Flexible Spending Plan.

The normal operating expenses increased by \$2,127,000 due to the new Downtown Allowance and Health and Wellbeing Flexible Spending Plan.

Please provide a detailed explanation and the benefits achieved by the new Downtown Allowance and Health and Wellbeing Flexible Spending Plan.

### **RESPONSE:**

CAC (MPI) 1-51 Reference: Operating Historical

Statistics - CAC (MPI) 1-5

of 2014 GRA

Please prepare and file Operational and Claims Cost History statistics similar to the attachment to CAC (MPI) 1-5 of the 2014 GRA.

### **RESPONSE:**

# CAC (MPI) 1-52

Reference: Summary of Basic Expenses and Compensation Increases –

Basic Share - CAC (MPI) 1-6 and PUB (MPI) 1-74 (a, b and c)

and PUB (MPI) 1-78 of 2014 GRA

Please prepare and file Basic Expenses and Compensation Increases in a format similar to CAC (MPI) 1-6 attachment, PUB (MPI) 1-74 a, b and c attachments and PUB (MPI) 1-78 attachment of the 2014 GRA.

#### **RESPONSE:**

In the current year application, the Corporation took a much more in-depth approach to discussing and explaining the compensation increases. Information is provided in various locations throughout the application, predominately Volume II Expenses.

Specifically, CAC (MPI) 1-6, PUB (MPI) 1-74 a both request the old TI.8 schedule. Please find the relevant information in Volume II Expenses, sections E.2.1.1 and E.2.1.3.

PUB (MPI) 1-74 b) and c) please refer to Volume II Expenses Appendix 1 for the breakdown of the components of compensation expense.

PUB (MPI) 1-78 please refer to Volume II Expenses Appendix 2.

# CAC (MPI) 1-53 Reference: Compensation Reports

Please file a copy of the public compensation report as of December 31, 2013 prepared in accordance with the Compensation Disclosure Act together with the Auditor's report.

## **RESPONSE:**

In accordance with the Public Sector Compensation Disclosure Act, the report is attached.



SCHEDULE OF COMPENSATION
IN ACCORDANCE WITH
THE PUBLIC SECTOR
COMPENSATION DISCLOSURE ACT
TOGETHER WITH AUDITOR'S REPORT

FOR THE CALENDAR YEAR ENDED DECEMBER 31, 2013

# COMPENSATION DISCLOSURE FOR 2013

The Public Sector Compensation Disclosure Act requires Crown Corporations to disclose to the public the total compensation of the Chairperson of the Board, officers and employees who earned \$50,000 or more in a year as well as the aggregate compensation received by the Board of Directors. In compliance with the Act, Manitoba Public Insurance has prepared this disclosure schedule for the year ended December 31, 2013.

For the 2013 income tax year, Manitoba Public Insurance issued 2,215 T4 slips to full-time, part-time and temporary employees and officers. Manitoba Public Insurance had a monthly average of 1,909 employees during 2013. This schedule lists the compensation paid to 1,273 officers and employees in managerial, technical and professional support positions.

The schedule lists the employees and officers in alphabetical order, along with their position and total compensation. In each case, the most recent position that the employee or officer held during 2013 is given. Total compensation includes the officer's and employee's regular salary, taxable benefits, retiring allowances, retroactive pay, vacation pay and severance pay.

This schedule is available to the public upon request. For additional information, contact our Human Resources Department at 204-985-8770 ext. 7653.



May 2, 2014

### **Independent Auditor's Report**

#### To the Directors of Manitoba Public Insurance Corporation

We have audited the accompanying schedule of the 2013 compensation over \$50,000 as well as the compensation in aggregate to Manitoba Public Insurance Corporation (MPI) for the year ended December 31, 2013 (the "financial information") in accordance with The Public Sector Disclosure Act of Manitoba. The financial information has been prepared by MPI management and our responsibility is to express an opinion on this financial information based on our audit.

#### Management's responsibility for the financial information

Management is responsible for the preparation and fair presentation of the financial information in accordance with The Public Sector Compensation Disclosure Act, and for such internal control as management of MPI determines is necessary to enable the preparation of the financial information that is free from material misstatement, whether due to fraud or error.

#### Auditor's responsibility

Our responsibility is to express an opinion on the financial information based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial information is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial information. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial information, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial information in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial information.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Opinion**

In our opinion, the financial information for the year ended December 31, 2013 is prepared, in all material respects, in accordance with The Public Sector Compensation Disclosure Act.

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"PwC" refers to PricewaterhouseCoopers LLP, an Ontario limited liability partnership.



## **Basis of presentation**

Without modifying our opinion, we draw attention to the basis of presentation described in the note to the schedule. The financial information is prepared to assist MPI to comply with the financial reporting requirements of The Public Sector Compensation Disclosure Act of Manitoba. As a result, the financial information may not be suitable for another purpose.

**Chartered Accountants** 

Pricewaterhouse Coopers LLP

PUB (MPI) 1-53 Attachment

<u>Name</u>	Position Title	Total <u>Compensation</u>	<u>l</u>
Abbott, D	Broker Services Administrator	54,717.43	
Abrey, W	Manager, Service Centre Operational Analytics	95,128.14	
Abs, L	Adjuster	54,904.98	
Adams, B	Reviewing Officer	59,539.27	
Addison, I	Adjuster	58,050.69	
Addison, K	Manager, Special Accounts & Subrogation	122,458.74	
Adolphe, L	Senior Collection Officer	54,228.07	
Agland-O'Connor, B	Fleets Administrator	55,857.12	
Agnew, R	Manager, Service Centre	107,100.78	
Aguilar-Manalo, A	Accountant 1	56,611.58	
Ahlbaum, C	Project Manager	101,327.97	
Ahmad, A	Senior Analyst	84,914.52	
Akong, R	Contact Centre Supervisor	60,119.28	
Alarie, M	Business Analyst	72,531.19	
Alarie, R	Adjuster	56,525.16	
Alexander, R	Senior Case Manager	62,534.26	
Ali, H	Senior IT Support Analyst	66,608.22	
Ali, S	Claims Cost Controller	67,873.85	
Alkana, J	Communications Officer 2	59,627.61	
Allan, J	Supervisor, Customer Service Centre	63,778.28	**
Allard, L	Senior Adjuster	59,859.25	
Allardyce, D	Service Centre Representative	52,095.85	
Allarie, G	Estimator-City	67,050.88	
Allen, R	Driver Testing Regional Coordinator	73,250.44	
Amante, C	Customer Care Lead	53,529.04	
Ambalina, F	Analyst	93,580.63	**
Amiotte, M	Associate Underwriter	81,224.27	**
Andersen, G	Manager, Rehabilitation Management	115,885.59	
Anderson, L	Analyst	73,208.36	
Anderson, L	Associate Case Manager	51,265.02	
Anderson, M	Training & Research Tech - Mech/Auto	69,546.51	
Anderson, M	Broker Services Administrator	63,674.05	
Andres, R	Supervisor, Rural Service Centre	76,727.02	
Angus, C	Senior Case Manager	75,966.34	
Antle, J	Adjuster	58,125.95	
Apostolopoulos, K	Senior Instructional Designer	69,241.54	
Appelt, B	Reviewing Officer	56,867.39	
Apperley, K	Buyer	53,024.15	
Arabsky, H	Manager, Service Centre	90,483.52	
Arendt, E	Senior Analyst	96,864.34	
Armour, T	Driver Examiner Lead	64,045.84	
Armstrong, J	Senior Case Manager	75,686.17	
Arnason, D	Manager, Fair Practices & Customer Relations	106,124.44	
Arnold, J	Customer Relations Officer	61,675.27	

<u>Name</u>	Position Title	Total Compensation	<u>1</u>
Arvidson, B	Customer Relations Officer	59,584.52	
Ashley, M	Special Investigator	77,214.56	
Asselstine, C	Supervisor, Salvage Yard	70,115.40	
Au, P	Business Analyst	69,543.35	
Au, R	Road Safety Issues Specialist	67,656.32	
Au, T	Manager, Basic Autopac Special Services	113,407.09	
Babiuk, D	Special Investigator	82,309.68	
Backstrom, J	Estimating Coordinator	81,942.95	
Bailer, K	HR Advisor	88,038.85	
Bailey, S	Executive Director, Product & Policy Management	161,717.85	
Bailey, S	Manager, Service Centre	108,862.30	
Bailey, W	Driver Examiner	55,953.53	
Baker, I	Business Analyst	71,274.27	
Baker, L	Subrogation Specialist	59,546.19	
Banwait, P	Analyst	78,372.29	
Baran, T	Driver Examiner Lead	60,504.06	
Barbour, G	Senior Case Manager	76,506.47	
Barchyn, J	Claims Supervisor	75,926.38	
Barker, D	Manager, Contact Centre Operations	85,056.60	
Barnett, P	Manager, Product Support Insurance, Licensing & Identity	111,000.51	
Barr, B	Estimator-Rural	66,178.43	
Barrault, S	Accountant 2	74,745.02	
Barron, M	Adjuster	55,620.18	
Barske, B	Driver Examiner	56,259.36	
Beaudoin, G	Senior Case Manager	67,659.79	
Beaulieu, G	Legal Processor 2	71,603.16	
Beaulieu, R	Customer Care Lead	55,047.67	
Beaumont, R	Business Analyst	78,337.02	
Beck, C	Manager, Medical Compliance & Assessments	96,715.63	
Bees, J	Accountant 2	83,956.03	**
Bell, R	Fair Practices Analyst	72,813.86	
Bell, R	Clerk 3	52,224.34	**
Bell, S	Community Program Coordinator	60,266.77	
Bender, D	Adjuster	57,243.48	
Bernardin, M	Associate Adjuster/Driver Examiner 2	68,337.79	
Bernhardt, D	Reviewing Officer	59,626.41	
Bernier, M	Training & Research Tech - Mech/Auto	68,668.55	
Berriault, L	Estimator-City	69,753.20	
Berthelette, T	Payroll Coordinator	127,623.54	
Best, C	Estimator-City	73,904.85	
Betker, J	Programmer/Analyst	57,116.02	
Betker, S	Senior Staff Development Consultant	80,588.28	
Beyer, A	Solicitor 2	78,538.37	
Bezte, D	Executive Director, Business Transformation Office	115,004.91	
Bielinski, J	Quality Control Inspector	75,121.50	

<u>Name</u>	Position Title	Total <u>Compensation</u>	
Bileski, J	Staff Development Consultant	69,510.26	
Billard, D	Systems User Analyst	54,455.33	
Birch, G	Manager, Service Centre	96,188.90	
Birss, S	Facilities/Premises Administrator	84,507.98	
Bittner, S	Service Centre Representative	51,274.47	
Bjore, L	Senior Case Manager	78,194.20	
Bjornson, V	Premises Coordinator	54,751.74	
Black, C	Vehicle Standards Officer	63,881.52	
Blackman, B	Reviewing Officer	58,997.38	
Blackmon, W	Administrative Officer	50,909.47	
Blain, S	Contact Centre Supervisor	56,665.32	
Blain, V	Senior Organizational Change Management Consultant	59,624.97	
Blake, R	Senior IT Analyst	65,053.22	
Blerot, G	Case Manager 2	62,236.43	
Blue, B	Commercial Registrations Representative	52,625.90	
Bobbie, J	Senior IT Analyst	121,249.90	
Boblinski, T	Knowledge Management Service Delivery Manager	102,435.69	
Bodanski, M	Payroll Administrator	51,976.52	
Bodnarchuk, G	Estimator-City	60,816.73	
Bodz, V	Injury Management Coordinator	83,167.84	
Bohm, K	Associate Adjuster/Driver Examiner 2	50,489.20	
Bohonos, M	Supervisor, Customer Service Centre	62,418.77	
Boisjoli, J	IT Analyst	82,305.25	
Boiteau, R	Senior Security Advisor	77,336.52	
Boivin, B	Contact Centre Supervisor	73,259.12	**
Bonan, S	Executive Assistant	65,834.24	
Bonazew, K	Manager, Estimating Services	98,340.73	
Bonney, B	Quality Control Inspector	94,655.71	**
Boroditsky, A	Accounts Payable Clerk	66,668.08	**
Borowski, P	IT Support Analyst	60,480.37	
Bouchard, J	Instructional Designer	55,733.70	
Bouchard, K	Adjuster	55,227.29	
Bouchard, R	Case Manager 2	71,700.29	
Bouchard, R	Estimator-Rural	70,878.52	
Bourgeois, S	Estimator-City	66,110.41	
Bourgouin, C	Senior IT Analyst	78,490.78	
Bourrier, M	Subrogation Adjuster	50,512.16	
Bouvier, S	Underwriter 1	53,897.03	
Bowering, J	Claims Controller - Physical Damage	70,324.36	
Bowman, D	Business Analyst	65,387.26	
Boyd, G	Business Analyst	72,320.24	
Bozek, R	Internal Review Officer	77,879.71	
Bradford, K	Assistant Manager, Administrative Services	73,432.55	
Brand, S	Senior Business Analyst	53,830.02	
Brannan, S	Tech Communications Lead	52,548.81	

<u>Name</u>	Position Title	Total <u>Compensation</u>	<u>1</u>
Braun, J	Customer Care Agent 2	50,474.11	
Breault, C	Adjuster	57,735.40	
Breault, L	Manager, Human Resource Services	98,131.14	**
Breedon, E	Supervisor, Rural Service Centre	75,314.86	
Breland, L	Adjuster	59,810.96	
Brennan, T	Injury Management Coordinator	80,722.91	
Brezden, W	Vehicle Standards Officer	66,636.28	
Brin, W	Adjuster	55,378.35	
Briscoe, A	Case Manager 2	68,208.31	
Broder, M	Senior Business Analyst	82,972.91	
Brooker, D	Training & Research Tech - Mech/Auto	68,954.32	
Broughton, D	Estimator-City	67,185.57	**
Brown, A	Senior Case Manager	71,947.29	
Brown, A	Claims Supervisor	59,709.21	
Brown, D	Service Centre Representative	51,417.21	
Brown, J	Accountant 1	54,675.06	
Brown, T	Solicitor 2	109,054.97	
Brownlee, A	Manager, IT Service Management	99,708.73	
Bruce, G	Associate Adjuster/Driver Examiner 2	59,354.39	
Brugger, B	Driver Examiner	56,104.73	
Bruzell, B	Driver Examiner	57,058.67	
Bryden, S	Senior IT Analyst	90,193.78	
Buchan, L	Technical Communications Lead	59,284.94	
Buchanan, B	Injury Claims Adjuster	78,003.97	**
Buchberger, K	Senior Case Manager	73,146.00	
Budgell, D	Customer Relations Officer	67,538.10	
Bueckert, K	Customer Care Lead	51,498.72	
Buendia, M	Legal Processor	60,705.45	
Buie, C	Identity Interview Coordinator	58,806.56	
Buisson, J	Case Manager 2	59,064.38	
Buizer, K	Special Investigator	83,933.66	
Buller, E	Senior Analyst	97,137.50	
Bunko, B	Executive Director, Information Technology	151,184.16	
Bunston, G	Manager, Investments (Secondment)	110,949.19	
Burbella, D	Assistant Manager, Service Centre	75,949.27	
Burdz, M	Senior Business Analyst	62,161.73	
Burke, J	Corporate Application Architect	114,455.87	
Burns, D	Manager, Licensing Services	94,955.86	
Burns, K	IRI Analyst	68,906.73	
Burt, J	Manager, Special Risk Extension	107,143.03	
Burtniak, S	Fleets Administrator	51,452.67	**
Burzuik, G	Estimator-City	80,397.89	* **
Cabral, L	Case Manager 2	63,485.69	
Cairns, B	Special Investigator	78,803.05	
Cairns, K	Instructional Designer	55,763.54	

<u>Name</u>	Position Title	Total <u>Compensation</u>
Calas, P	Auditor 1	55,437.35
Caligiuri, C	Systems User Analyst	58,819.01
Cameron, K	Manager, Vehicle Standards & Inspections	79,189.89
Campbell, C	Executive Director, Finance & Corporate Controller	156,631.76
Campbell, P	Customer Service Representative	52,234.97
Campbell, S	Estimator-City	64,511.74
Campbell, T	Driver Examiner	56,567.59
Carbotte, C	Customer Care Lead	55,666.82
Cardillo, M	Senior Investment Analyst	78,398.26
Carter, T	Customer Care Agent 2	52,253.13
Carton, V	Underwriting Supervisor	83,128.90
Castles-Shinnimin, M	Senior Case Manager	76,112.60
Cavanagh, W	Vehicle Standards Officer	58,695.55
Celones, E	Adjuster	55,002.49
Chalmers, C	Senior Adjuster	65,910.94
Chalmers, J	Service Centre Representative	50,268.69
Chamberlain, C	Quality Control Inspector	76,596.51
Champagne, S	Service Centre Representative	51,136.96
Charles, D	Commercial Specialist	74,699.49
Chartier, N	Service Centre Representative	51,305.44
Chartrand, B	Estimator-Rural	68,904.69
Chartrand, M	Case Manager 2	65,217.34
Chastko, D	Knowledge Management Portfolio Manager	82,900.32
Chaudhuri, A	Business Analyst	64,732.42
Cheadle, A	Business Analyst	69,515.89
Chestley, D	Senior Case Manager	77,451.11
Chicoine, C	Senior IT Analyst	101,611.07
Chimuk, D	Manager, PDC Claims Operations	108,930.70
Cholod, D	Injury Management Coordinator	84,984.94
Chomski, A	Senior Investment Analyst	82,073.69
Chorney, J	Service Centre Representative	52,304.79
Chubaty, D	Case Manager 2	68,002.89
Cielen, B	Adjuster	54,910.13
Claridge, D Clark, C	Service Centre Representative	51,536.81
•	Senior Project Manager	94,583.35
Clark, K Clark, L	Case Manager 2	58,816.39 58,456.80
Clearwater, T	Case Manager 2 Actuarial Analyst	72,015.73
Clemens, D	IT Analyst	89,840.51
Cole, K	Supervisor, Rural Service Centre	69,782.92
Coleman, C	Adjuster	58,161.92
Collins, D	Case Manager 2	61,405.02
Copp, K	Business Analyst	70,912.52
Cordeiro, S	Clerk Typist 2	50,847.99
Cordova, E	Service Centre Representative	54,581.37
30.40.4, 1	23. The define nepresentative	5 1,551.57

<u>Name</u>	<u>Position Title</u>	Total Compensation	<u>1</u>
Corley, J	Adjuster	54,374.71	
Corley, J	Commercial Specialist	53,175.45	
Cormier, C	Manager, Special Investigation Unit	108,601.81	
Correia, K	Service Centre Representative	53,835.01	
Costa, M	Claims Processor	54,069.33	
Cosyns, P	Analyst	67,527.66	
Coulson, C	Quality Control Inspector	77,148.86	
Courchene, S	Accountant 1	59,139.59	
Court, T	Special Investigator	79,053.51	
Craig, C	Driver Examiner	59,454.96	
Crittenden, R	Manager, IT Support & Operations	122,286.43	
Crocker, W	Estimating Coordinator	73,557.23	
Crowston, E	Assistant Manager, Customer Service	91,093.25	
Cudden, F	IRI Analyst	63,608.64	
Cueto, M	Clerk 3	65,349.41	**
Cullen, C	Manager, Service Centre	80,608.42	
Cumming, L	Director, Special Risk Extension	119,638.89	
Cupples, J	Case Manager 2	67,504.99	
Currie, L	Communications Officer 2	55,275.23	**
Curtaz, J	Business Analyst	74,265.09	
Curtis, D	Clerk Typist 2	52,327.43	**
Cyrenne, R	Reviewing Officer	61,166.51	
Daeninck, A	Corporate Application Architect	57,592.10	
Daley, D	Reviewing Officer	59,461.94	
Damasco, M	Business Analyst	67,440.83	
Danais, A	Senior Analyst	86,309.42	
D'Andrea, C	Medical Fitness Administrator	73,375.37	
Darragh, E	Adjuster	55,101.57	
Dattero, G	Senior Adjuster	55,599.41	
Davey, P	Fleet Vehicle Administrator	61,606.37	
Davidson, K	Assistant Manager, Rehabilitation Management	96,626.12	
Dayman, C	Adjuster	52,453.24	
Dayman, R	Vehicle Standards Supervisor	67,436.21	
Dayne, J	Adjuster	57,388.02	
De Cruyenaere, A	Clerical Supervisor	55,139.58	
De Jesus, E	IT Analyst	96,490.70	
Debeuckelaere, T	Senior Case Manager	77,859.29	
Decock, T	Adjuster	61,005.60	
Defolter, A	Manager, Salvage & Holding Compound	107,071.85	
Delamater, N	Quality Control Inspector	73,635.80	
Deluca, C	Systems User Analyst	57,920.42	
Deluna, D	Customer Relations Officer	67,697.83	
Denby, W	Clerk Typist 2	63,342.49	**
Deogun, A	Analyst	74,193.06	
Desautels, A	Driver Examiner	51,711.37	

<u>Name</u>	Position Title	Total <u>Compensation</u>	<u>1</u>
Desmond, T	Special Investigator	114,518.33	**
Deveau, Y	HR Advisor	60,834.96	
Devlin, S	Claims Controller - Injury	88,143.68	
Devodder, J	Senior IT Analyst	111,246.86	
Diduch, C	Senior Case Manager	67,591.39	
Dion, D	Estimator-City	69,641.20	
Dirks, P	Manager, Service Operations Policy & Control	94,371.50	
Dittmar, W	Injury Management Coordinator	86,730.20	
Dixon, N	Autopac Program Coordinator	62,017.53	
Doherty, V	Senior Case Manager	77,945.33	
Dohler, M	Medical Assessment Supervisor	66,789.30	
Dola, J	Senior Adjuster	67,555.15	
Dolski, D	Customer Care Agent 2	53,432.12	
Dominguez, F	Business Analyst	55,056.39	
Domish, C	Senior Case Manager	78,174.07	
Donaldson, D	Buyer	51,519.76	
Donay, M	Customer Care Lead	55,651.88	
Doskoch, M	Accountant 1	50,171.19	
Douglas, A	Claims Supervisor	103,008.15	**
Douglas, M	HRMS Coordinator	99,332.90	
Douglass, T	Senior Instructional Designer	68,713.53	
Downie, K	Adjuster	60,050.74	
Drummond, R	Senior IT Support Analyst	71,486.11	
Dubowits, J	Estimator-City	73,246.01	
Duckett, K	Special Investigator	81,942.99	
Duda, R	Customer Account Representative	59,236.84	
Dufault, J	Driver Ed Liaison Officer	58,103.15	
Dufault, L	Case Manager 1	55,357.37	
Dundas, I	Corporate Application Architect	105,432.02	
Dunlop, D	Vehicle Registrations Coordinator	63,872.22	
Dunstone, D	Assistant Manager, Risk Control & Financial Forecasting	89,346.96	
Dunstone, D	Knowledge Management Portfolio Manager	77,824.40	
Dutchyszen, P	Systems User Analyst	59,886.86	
Duval, J	Supervisor, Salvage Administration	63,466.38	
Dvorak, J	Manager, Product Support BI, PD & Supporting Applications		
Dyck, J	Investigator	83,556.51	
Dyck, L	Case Manager 1	50,666.00	
Dyer, G	Analyst - COTS Applications Commercial Registrations Penrocentative	81,482.42 52,454.58	
Eckberg, B Eden, C	Commercial Registrations Representative Project Manager	90,325.97	
Edginton, G	Corporate Application Architect	99,659.05	
Edwards, A		69,248.43	
Egan, D	Reinspection Estimator Senior Case Manager	77,884.11	
Eger, R	Estimator-City	60,035.43	
Eisener, D	PIPP Benefits Administrator	53,491.29	
LISCHEL, D	THE BENETIES Administrator	JJ, <del>+</del> J1.23	

<u>Name</u>	Position Title	Total <u>Compensation</u>
Eisner, R	Senior Case Manager	74,473.24
Ekdahl, S	Senior Business Analyst	77,649.72
Embury, M	HR Diversity Coordinator	82,535.44
Emes-Macklin, B	Manager, Legislation Management	96,588.88
Empey, G	Service Centre Representative	53,187.08
Engbrecht, A	Senior Instructional Designer	68,237.84
Enns, C	Knowledge Management Portfolio Manager	97,621.13
Enns, L	Medical Fitness Administrator	54,265.24
Esak, M	Customer Care Lead	51,933.03
Esau, G	Driver Examiner	55,056.00
Estares, J	Senior Business Analyst	67,449.28
Eyres, D	Supervisor, Rural Service Centre	90,718.68 **
Fahrenschon, T	Adjuster	55,518.36
Faria, P	Vehicle Registrations Coordinator	67,588.94
Farnsworth, P	Special Investigator	76,308.90
Fast, C	Underwriter 1	56,758.21
Fast, K	Senior Adjuster	66,814.90
Fecyk, K	Customer Care Agent 2	54,136.90
Felbel, A	Special Investigator	77,214.62
Fender, J	Service Centre Representative	51,437.23
Feng, Y	IT Support Analyst	60,631.61
Fenske, K	Manager, Advertising	77,689.62
Fernando, S	Programmer/Analyst	53,761.21
Ferreira, R	Estimating Supervisor	72,961.44
Fiks, M	Manager, Basic Autopac Special Services	88,369.76
Fillion, K	Senior Case Manager	76,304.98
Findlay, D	Manager, Glass Audit and Specialty Valuations	90,306.04
Firman, S	Service Centre Representative	51,263.11
Fish, D	Broker Services Administrator	58,535.35
Fisher, D	Analyst	83,232.09
Fisher, L	Supervisor, Customer Service Centre	52,385.93
Fitzmaurice, T	Senior Test Administrator	59,771.91
Fleming, D	Tow Truck Operator	56,125.65
Flikweert, K	Senior Adjuster	62,124.14
Foley, R	Senior Adjuster	58,975.19 **
Fomgbami, Z	Adjuster	58,002.78
Fontaine, D	Driver Examiner Lead	66,569.00
Forrest, J	Supervisor, Customer Service Centre	58,827.66
Forrest, J	Adjuster	54,640.25
Fosty, B	Manager, Driver Testing Policy & Evaluation	86,163.44
Fosty, P	Driver Training Permit Officer	58,824.11
Fotheringham, B	Identity Verification Supervisor	50,588.93
Foulkes, G	Case Manager 2	58,149.35
Frazer, D	Accountant 2	63,929.21
Frechette, F	Reviewing Officer	51,737.06

<u>Name</u>	Position Title	Total Compensation
Frederickson, F	Senior Instructional Designer	69,577.25
Friesen, J	Senior Case Manager	61,629.59
Friesen, K	Senior Business Continuity Coordinator	74,188.84
Froese, G	Quality Control Coordinator	81,950.36
Froese, W	Senior Case Manager	90,944.62
Fujiwara, T	Estimator-City	66,396.83
Funk, K	Employee & Labour Relations Specialist	82,384.31
Fuz, J	Assistant Manager, Commercial Claims	90,563.75
Gagne, J	Director, Corporate Services & Salvage Operations	122,402.32
Gagne, P	Analyst	84,688.96
Galezowski, L	Driver Examiner Lead	65,859.62
Galka, R	Purchasing Agent	59,427.62
Gallant, N	Claims Supervisor	69,421.71
Garn, P	Senior Analyst	100,260.81
Garofoli, D	Senior Business Analyst	63,118.89
Garwood, M	Senior Case Manager	77,740.38
Gaskin, H	Senior Case Manager	81,143.74
Gatherum, J	Claims Supervisor	80,873.84
Gaucher, M	Knowledge Management Portfolio Manager	69,383.39
Gaudry, G	Assistant Manager, Financial Reporting	85,925.21
Geake, D	Accountant 1	51,670.02
Geiger, C	Service Centre Representative	51,937.50
Gendreau, L	HR Advisor	72,604.55
General, E	Programmer	50,208.43
Germain, D	Manager, Service Centre	102,975.91
German, M	Quality Control Coordinator	80,207.54
Gerullis, G	Community Program Coordinator	57,915.03
Getty, J	Service Centre Representative	50,667.49
Giannico, M	Customer Relations Officer	67,517.96
Giasson, C	Yardman	57,415.64
Gibbs, N	Service Centre Representative	50,267.21
Gibson, K	Underwriter 1	55,073.16
Gibson, T	Business Analyst	52,693.81
Giesbrecht, B	Claims Cost Controller	90,884.54
Giesbrecht, W	Adjuster	56,932.59
Gilbert, S	Business Analyst	50,587.47
Gilmore, C	Driver Examiner	54,537.07
Gingras, M	Adjuster	57,228.60
Glenday, C	Contact Centre Supervisor	59,469.11
Glowa, R	Subrogation Specialist 2	65,094.72
Gobeil, L	Customer Care Agent 2	50,089.34
Goddard, S	Senior Case Manager	75,527.20
Goertzen, C	Internal Review Officer	60,368.57
Goertzen, I	Claims Cost Controller	84,820.56
Golinski, B	Records Management Supervisor	55,066.86

<u>Name</u>	Position Title	Total <u>Compensation</u>	<u>1</u>
Gompf, V	Subrogation Adjuster	52,791.93	
Gonzales, D	Clerk Typist 3	51,256.32	**
Gonzales, T	Associate Business Analyst	51,232.12	
Goos, A	Strategic Communications Coordinator	71,925.20	
Gosnell, M	Associate Adjuster/Driver Examiner 2	50,322.18	
Gospodyn, L	Systems User Analyst	59,017.58	
Gowen, T	Commercial Estimator	63,487.55	
Graham, C	Case Manager 2	64,895.98	
Graham, S	Test Administrator	55,592.64	
Graham, T	Service Centre Representative	50,587.51	
Granger, B	Senior Case Manager	68,309.93	
Grantham, D	Analyst	58,487.82	
Gray, B	Manager, Driver Improvement & Control	93,024.36	
Gray, D	Manager, Contact Centre Operations	114,743.16	**
Greco, F	Heavy Vehicle Service Representative	55,139.45	
Green, B	Driver Examiner	59,288.63	
Greenberg, N	Claims Controller - Injury	90,339.14	
Greig, R	Vehicle Standards Officer	65,192.55	
Grenier, R	Adjuster	57,663.15	
Griffith-Parker, B	Senior Graphic Designer	62,045.41	
Griffith-Parker, J	Senior IT Analyst	64,525.12	
Griffiths, D	Reviewing Officer	82,008.43	**
Grose, T	Driver Examiner	56,617.00	
Grossman, P	Assistant Manager, Customer Service	82,342.11	
Gudz, T	Systems User Analyst	55,425.00	
Guick, A	Estimator-Rural	67,832.54	
Guimond, D	Vice President, Strategy & Innovation and CIO	234,612.54	
Gunn, C	Assistant Manager, Service Centre	90,319.16	
Haaksma, J	Assistant Manager, IT Service Desk	74,264.23	
Hagan, B	Manager, Risk Control & Financial Forecasting	64,730.82	
Haire, S	Tech Communications Lead	60,469.78	
Haithwaite, R	Executive Director, Injury Claims Management	168,889.86	
Halabiski, J	Senior IT Support Analyst	91,481.96	
Hall, L	Systems User Analyst	59,099.31	
Hallock, J	Purchasing Agent	59,263.19	
Hallonquist, J	Director, Insurance & Licensing Operations	144,867.61	
Hanlan, E	Estimator-City	63,987.00	
Hannah, H	Senior Injury Claims Adjuster	74,489.80	
Harasym, C	Adjuster	58,822.87	
Harmacy, S	Estimating Supervisor	65,546.06	
Harron, P	Senior Underwriter	73,124.62	
Hartwich, S	Medical Fitness Administrator	71,897.24	
Harvey, L	Director, Service Operations Control & Compliance	107,241.23	
Harvey, M	Underwriting Supervisor	77,739.14	
Hastings, M	Supervisor, Customer Service Centre	56,557.56	

<u>Name</u>	<u>Position Title</u>	Total <u>Compensation</u>	<u>l</u>
Hauser, T	Senior Case Manager	68,162.00	
Haywood, T	Customer Care Agent 2	51,187.74	
Hazelwood, B	Systems User Analyst	57,686.41	
Heinrichs, C	Supervisor, IT Services	100,188.82	
Heintz, D	Estimating Supervisor	74,665.25	
Heise, H	Estimating Supervisor	84,973.90	**
Helgason, N	Adjuster	50,131.74	
Henderson, J	Adjuster	57,264.14	
Henderson, K	Senior Case Manager	70,019.81	
Hendricks, C	Senior Business Analyst	76,774.73	
Henry, C	Adjuster	56,737.14	
Hermary, M	Vehicle Standards Officer	59,318.25	
Higgins, D	Systems User Analyst	53,084.91	
Higgs, D	Supervisor, Rural Service Centre	72,447.70	
Higham, R	Senior Case Manager	77,496.13	
Hildawa, R	Business Analyst	70,199.27	
Hildebrand, K	Estimating Supervisor	73,641.51	
Hill, P	Respectful Workplace Advisor	78,908.31	
Hindmarsh, C	Supervisor, Customer Service Centre	60,053.46	
Hlady, S	Adjuster	54,995.38	
Hlatkey, R	Adjuster	57,518.44	
Hnatiuk, C	Adjuster	57,117.93	
Hoadley, C	Auditor 2	70,242.70	
Hoban, J	HR Benefits Administrator	51,232.91	
Hobson, K	Claims Controller - Physical Damage	69,043.63	
Hocken, C	Director, Knowledge Management Services	119,477.01	
Hoffman, M	Senior Solicitor	122,155.72	
Hoggan, B	Salvage Supervisor	63,451.83	
Hogue, I	Estimating Systems Administrator	80,236.34	
Holgate, R	Accountant 1	57,691.72	
Holm, D	Manager, Autopac Extension	188,522.75	**
Holmes, K	Driver Examiner	60,803.99	
Holowick, D	Payroll Administrator	59,889.34	
Holter, K	Executive Director, Information Technology	100,664.62	**
Hook, C	Accounting Clerk 2	51,452.66	
Hooper, S	Estimator-City	63,008.11	
Hopkins, D	Manager, Financial Reporting & Budgeting	111,336.89	
Hoppe, D	Estimator-Rural	65,475.69	
Hora, C	Director, Urban Service Centre Operations	105,958.72	
Houston, D	Disability Management Specialist	102,897.23	
Howdle, H	Manager, Health Care Services	104,294.53	
Howe, D	Senior Adjuster	59,012.83	
Hoy, K	Analyst	87,051.40	
Hrabliuk, C	Senior Case Manager	77,613.03	
Huang, L	Actuarial Analyst	72,032.29	

<u>Name</u>	Position Title	Total Compensation
Hudey, J	Supervisor, PIPP Benefits Administration	56,834.83
Hudey, S	Research & Training Coordinator	82,784.04
Hudson, J	Commercial Specialist	67,598.22
Humble, J	Senior Business Analyst	76,698.02
Humphries, E	Special Investigator	80,365.16
Hunt, T	Community Program Coordinator	54,558.87
Huppe, G	Fair Practices Analyst	69,119.75
Hutsal, F	Customer Care Agent 2	52,251.81
Huzel, J	Business Analyst	72,545.71
Hykawy, R	Vehicle Standards Officer	63,870.25
Ingram, J	Emergency Preparedness & Safety Coordinator	74,462.99
Innes, M	Senior IT Support Analyst	54,413.15
Insch, K	Contact Centre Supervisor	52,124.53
Irving, C	Systems User Analyst	62,603.94
Irwin, C	Service Centre Representative	52,627.92
Isaak, J	Service Centre Representative	50,943.71
Isaak, N	Analyst	70,049.41
Isfjord, S	HR Administrator	85,129.64
Isfjord, T	Senior Business Analyst	85,061.47
Isidro, M	Organizational Change Management Consultant	77,390.90
Ismail, M	Assistant Manager, Financial Applications	83,932.91
Izzard, R	Accountant 2	76,228.38
Jackson, W	Commercial Specialist	63,919.19
Jacob-Azevedo, K	Senior Graphic Designer	52,782.84
Jagger, H	Senior Case Manager	80,627.47
Jamieson, S	Systems User Analyst	59,768.52
Janisse, J	Manager, IT Managed Services	103,390.84
Jansen, S	Commercial Registrations Supervisor	55,009.62
Jantz, F	Driver Examiner	54,992.35
Jassal, G	Accountant 2	61,326.60
Jay, R	Programmer/Analyst	59,234.86
Jeanes, G	Driver Examiner	57,799.22
Jeanson, R	Commercial Specialist	58,606.67
Jeffrey, K	Assistant Manager, Claims Services	88,875.86
Jenkyns, M	Adjuster	53,876.66
Jia, H	Senior IT Analyst	96,770.67
Johns, R	Systems User Analyst	59,875.07
Johnson, D	Staff Development Consultant	77,682.97
Johnson, D	Programmer/Analyst	58,013.85
Johnson, J	Clerk 2	50,970.97
Johnson, K	Estimator-City	68,438.80
Johnson, K	Senior Systems User Analyst	64,305.55
Johnston, G	Executive Director, Business Transformation Office	103,692.24
Johnston, L	Executive Director, Pricing & Economics and Chief Actuary	161,540.45
Jones, G	Adjuster	57,759.73

<u>Name</u>	<u>Position Title</u>	Total <u>Compensation</u>	<u>l</u>
Jones, L	Special Activities Services Officer	58,575.84	
Jovanovic, M	Assistant Manager, Accounting Services	89,389.05	
Jubinville, D	Senior IT Administrator - Operations	55,412.67	
Juhnke, M	Case Manager 2	55,006.98	
Jurkowski, L	Business Analyst	56,301.58	
Jurkowski, R	Driver Improvement Supervisor	58,986.13	
Kacher, M	Director, Service Operations Control and Compliance	117,939.83	
Kalinowsky, K	General Counsel & Corporate Secretary	204,324.00	
Kalomiris, H	Analyst - COTS Applications	81,990.92	
Karpenko, S	Assistant Manager, Special Investigations Unit	87,794.71	
Kashuba, L	Assistant Manager, Special Investigation Unit	88,567.15	
Kaspersion, D	Accountant 2	72,395.53	
Kaspick, J	Estimating Supervisor	67,474.87	
Kaushal, M	HR Advisor & Supervisor, HR Support	80,717.49	
Kaushal, R	Driver Examiner	56,623.73	
Kazubek, S	Customer Service Representative	52,404.44	
Keating, D	Adjuster	53,839.65	
Kee, A	Adjuster	56,712.55	
Kehler, R	Supervisor, Rural Service Centre	86,874.75	
Keith, M	Supervisor, PIPP Benefits Administration	58,106.06	
Keith, W	Executive Director, Driver Safety & Regulatory Control	161,151.53	
Keller, D	Estimator-Rural	68,942.94	
Kelly, M	Policy/Procedure Manual Analyst	56,401.84	**
Kempe, M	Vice President, Community & Corporate Relations	244,775.11	
Kernaghan, B	Contact Centre Supervisor	60,318.16	
Keszi, M	Multimedia App Developer	58,819.01	
Ketola, D	Estimator-Rural	76,151.84	
Kibsey, G	Manager, Organizational & Leadership Development	100,757.14	
Kindrat, D	Adjuster	55,168.62	
Kintop, K	Business Analyst	64,308.30	
Kirby, K	Solicitor 2	78,618.88	
Kirkwood, M	Adjuster	55,491.23	
Kjartanson, M	Systems User Analyst	59,666.69	
Klassen, A	Adjuster	50,641.89	
Klassen, C	Analyst	56,813.80	
Klassen, D	Systems User Analyst	57,986.54	
Klassen, H	Estimator-City	92,286.72	**
Klassen, K	Team Leader, Broker Services Administration	63,519.46	
Klingbell, S	Analyst	73,461.42	
Klohn, K	Contact Centre Operations Resource Coordinator	55,697.91	
Kluner, R	Administrative Officer 2	64,348.70	
Kneeshaw, B	Supervisor, Customer Service Centre	61,813.79	
Kobylinski, M	Assistant Manager, Licencing Services	60,196.55	
Kocis, M	Estimator-City	67,562.45	
Koehl, H	Senior Analyst	83,856.34	

<u>Name</u>	Position Title	Total Compensation	
Kokan, D	Analyst	79,031.14	
Kolly, L	Director, Enterprise Project Management Office	116,775.60	
Komadowski, S	Executive Assistant	66,888.12	
Kominowski, P	Adjuster	56,948.50	
Kooiker, C	Analyst	68,781.99	
Koolage, L	Senior Case Manager	72,778.69	
Koots, K	Project Manager	89,748.66	
Kopec, C	Supervisor, Customer Service Centre	58,741.15	
Kopp, D	Fleet Safety Service Representative	54,904.97	
Koroscil, D	Manager, PIPP Support Services	114,104.07	
Korozsi, B	Estimator-City	68,287.29	
Koscielny, K	Underwriter 2	61,824.49	
Kosowan, R	Supervisor, Commercial Claims	81,276.30	
Kowalchuk, M	Case Manager 2	67,704.82	
Krahn, M	Injury Claims Adjuster	56,606.16	
Kramer, L	Estimator-City	67,945.24	
Krasnowski, G	Senior Analyst	100,289.44	
Krawchuk, M	Senior IT Analyst	83,096.22	
Kroeger, W	Special Investigator	78,792.45	
Kroeker, C	Adjuster	54,162.81	
Kroll, R	Director, Physical Damage	100,385.71	**
Krueger, K	Director, Compulsory Insurance & Strategic Standards	121,961.30	
Krueger, K	Associate Adjuster/Driver Examiner 2	61,312.47	
Krupinski, J	Director, Enterprise Portfolio Management Services	116,208.60	
Ksiazek, K	Supervisor, PIPP Benefits Administration	54,366.28	
Kufley, G	Senior Injury Claims Adjuster	77,451.14	.11.
Kulbaba, M	Project Manager	136,964.59	**
Kumka, J	Occupational Therapist	79,161.98	
Kumka, T	Solicitor 2	113,317.35	
Kupchik, L	Senior Case Manager	77,451.12	
Kushnier, E	Adjuster	58,184.36	
Kushnir, A	Analyst	64,201.53	
Kusie, T	Customer Care Agent 2	57,129.57	
Kwiatkowski, B	Corporate Application Architect	110,273.33	
Kyliuk, T	Analyst	82,919.07	
La Page, A	Programmer/Analyst Broker Services Administrator	64,688.29	
La Page, J Lachance, K		55,892.30 67,365.91	
Lacroix, P	Subrogation Specialist 2 Privacy & Information Officer	81,942.93	
Lacroix, F	Analyst	83,440.62	
Lafortune, C	Supervisor, Customer Service Centre	58,982.74	
Lafreniere, R	Senior Adjuster	55,570.63	
Lagace, C	Senior Adjuster	56,220.89	
Laidlaw, D	Project Coordinator	91,831.75	
Lakhno, A	Senior Adjuster	64,576.50	
_anino, / (	JeJ. Aujustei	3 1,37 0.30	

<u>Name</u>	<u>Position Title</u>	Total Compensation	<u>1</u>
Lamb, D	Driver Records Processing Supervisor	55,293.50	
Lambert, J	Adjuster/Driver Examiner	61,108.24	
Lambert, R	Estimator-City	63,008.11	
Lamboo, A	Claims Supervisor	82,414.14	
Lambrecht, K	Analyst	70,853.32	
Lamont, B	Facilities Service Technician	77,556.25	
Lansard, S	Claims Supervisor	76,742.40	
Lapointe, G	Injury Management Coordinator	82,986.55	
Lapointe, J	IT Managed Services Analyst	80,800.13	
Lapratte, P	Estimator-Rural	60,216.96	
Larson, C	Supervisor, Mail and Warehouse	61,693.71	
Lashewicz, L	Customer Care Agent 2	53,108.66	
Lasuik, B	Claims Supervisor	64,166.34	
Lau, C	Solicitor 2	112,750.05	
Lau, R	Information Systems Auditor	83,345.49	
Lavallee, C	Contact Centre Supervisor	59,352.58	
Lawrence, M	Senior IT Support Analyst	86,404.70	
Lawrence, M	Business Analyst	72,990.56	
Lawrence, S	Administrative Officer 2	66,888.12	
Laxdal, G	Business Analyst	73,044.52	
Lazarko, L	Director, IT Infrastructure	118,282.73	
Lea, M	Supervisor, IT Services	113,915.30	
Leach, K	Collection Supervisor	73,189.66	
Lebedeff, T	Clerk 4	52,478.30	
Leblanc, N	Supervisor, Rural Service Centre	61,004.88	
Lebleu, I	Estimating Systems Clerk	53,042.07	**
Lee, R	Business Analyst	72,768.59	
Lee, S	Disaster Recovery Coordinator	65,299.55	
Lee-Ward, B	Senior IT Analyst	70,994.59	
Leganchuk, D	Service Centre Representative	50,825.21	
Lehmann, S	Manager, IT Security, Compliance & Risk	111,117.38	
Lemoine, C	Senior Graphic Designer	56,813.88	
Lemoine, P	Senior MultiMedia Application Developer	57,731.70	
Lennartz, M	Estimator-Rural	66,120.50	
Lepki, G	Estimating Supervisor	71,737.24	
Leppky, S	Executive Director, Human Resources & Staff Development	121,311.55	
Lesage, J	Adjuster	54,240.51	
Letkemann, T	Manager, PDC Claims Operations	108,651.47	
Levy, J	Service Centre Representative	53,446.46	
Lewis, C	Senior IT Administrator - Operations	58,370.70	
Lewis, J	Special Investigator	80,358.26	
Lewis, R	Customer Account Representative	51,284.78	
Leys, E	Commercial Estimator	63,526.24	
Leys, T	Estimator-Rural	60,120.62	
Light, D	Special Investigator	77,214.58	

<u>Name</u>	Position Title	Total <u>Compensatior</u>	<u>1</u>
Link Adams, S	Senior Case Manager	63,830.70	
Link, C	Assistant Manager, Rehabilitation Management	82,686.37	
Litke, D	Accountant 2	72,097.61	
Lobban, E	Senior Case Manager	69,857.84	
Locke, C	Driver Ed Liaison Officer	59,896.66	
Locke, J	Adjuster	58,192.46	
Loechner, M	Assistant Manager, Service Centre	81,818.11	
Loeppky, G	Injury Management Coordinator	83,012.28	
Loewen, D	Training & Research Tech - Mech/Auto	68,892.30	
Lofto, D	Assistant Manager, Special Investigation Unit	85,095.13	
Lokke, A	Business Analyst	66,855.59	
Long, R	Adjuster	59,255.37	
Lopushniuk, S	Accounting Clerk 2	51,625.40	
Lorteau, G	Driver Examiner	57,970.00	
Loster, J	Senior IT Analyst	131,301.36	
Love, D	Driver Examiner Lead	63,146.01	
Lovering, A	Medical Fitness Administrator	72,482.61	
Low, R	Senior Case Manager	77,457.55	
Lueken, C	Accountant 2	55,158.13	**
Luky, C	Glass Audit Supervisor	56,358.38	
Lundy, R	Estimator-City	64,821.68	
Lupky, S	Manager, Serious & Long Term Case Management	100,109.42	
Lyburn, L	Commercial Specialist	65,549.15	
Lyle, K	Claims Supervisor	77,595.67	
Lyons, J	Strategic Communications Coordinator	72,301.06	
Lysy, C	Analyst	78,976.91	
Lysyk, N	Collection Officer	51,419.56	
Macbeth, R	Analyst	68,573.41	
Maccutcheon, S	Internal Review Officer	78,343.68	
Macdonald, K	Vehicle Standards Officer	63,870.24	
Macdonald, T	Adjuster	60,468.46	
Macdonald, V	Medical Assessment Policy Analyst	76,560.13	
Macfarlane, E	Underwriter 2	55,146.07	
Machado, N	Contact Centre Quality Analyst	55,103.57	
Mackay, A	Programmer	50,311.38	
Mackay, G	Business Analyst	72,301.07	
Mackeen, M	Assistant Manager, Customer Relations	73,930.98	
Mackeen, T	Senior IT Administrator	53,924.36	
Mackenzie, A	Customer Care Agent 2	54,040.44	
Macsymach, B	Service Centre Representative	51,995.67	
Madhosingh, T	Business Analyst	63,104.51	
Maeren, D	Driver Records Coordinator	75,896.52	
Maes, D	Estimator-City	67,062.68	
Maharajh, M	Business Analyst	72,301.06	
Maia, E	Driver Ed Liaison Officer	52,862.69	

<u>Name</u>	Position Title	Total <u>Compensation</u>
Manmohan, S	IRI Analyst	70,934.44
Mann, S	Business Analyst	63,588.59
Manthei, H	Medical Fitness Administrator	73,202.96
Marchant, J	Premises Coordinator	63,940.64
Marks, G	Manager, HR Services	75,871.10 **
Marlatt, V	Adjuster	60,135.13
Marsch, T	Service Centre Representative	51,741.67
Martens, K	Senior Payroll Administrator	73,352.19
Martin, C	Vice President, Service Operations	209,773.36
Martin, H	Driver Examiner	54,904.95
Martin, L	Project Manager	62,797.86 **
Maslanka, M	Solicitor 2	96,795.74
Maslow, D	Claims Processor	50,333.35 **
Masnyk, C	Subrogation Adjuster	53,001.96
Mason, K	Customer Care Agent 2	52,739.68
Mather, J	Dealer Inspector	58,833.29
Matkowski, R	Adjuster	59,100.56
Matson, G	Senior Project Manager	96,481.80
Matthewson, C	Road Safety Issues Specialist	66,000.76
Mazzei, C	Policy Research Analyst	75,886.05
Mccaffrey, D	Data Architect	83,434.57
Mccomb, L	Senior Subrogation Specialist	73,582.84
Mcdivitt, M	Senior Accounts Receivable Representative	57,677.69
Mcdonald, J	Estimator-Rural	66,508.32
Mcdonald, W	Senior MultiMedia Application Developer	61,976.97
Mcfadyen, K	Manager, Quality Control & Metrics	97,777.91
Mcgill, C	Senior Case Manager	66,390.95
Mcintyre, H	Senior Analyst	83,182.49
Mckay, G	Analyst - Rate Groups	51,042.03
Mckay, J	Adjuster	57,489.98
Mckee, J	Business Analyst	74,038.37
Mckee, W	Estimator-Rural	70,003.47
Mckinnon, M	Senior Case Manager	62,393.08
Mckinnon, S	Executive Assistant	69,959.76
Mclaren, M	President & CEO	304,819.19
Mclaughlin, C	Subrogation Adjuster	56,088.45
Mclennan, K	Manager, Financial Applications	111,902.25
Mcleod, T	Reinspection Estimator	67,751.14
Mcnabb, D	Adjuster	52,049.11
Mcrae, J	Senior IRI Calculator	53,472.84
Meakin, K	Adjuster	55,583.46
Meakin, L	Vehicle Standards Officer	63,870.21
Meakin, S	Senior Adjuster	60,880.02
Melizza, F	Collection Officer	52,563.58
Melnick, C	Accountant 1	55,623.58

<u>Name</u>	Position Title	Total <u>Compensation</u>
Melnyk, C	Business Analyst	79,938.76
Melnyk, R	Business Analyst	70,045.79
Melo, L	Injury Management Coordinator	81,414.41
Merchant-Foster, P	Clerical Supervisor	59,001.05
Merke, V	Senior Case Manager	75,959.72
Mestdagh, L	Manager, Service Centre	103,571.65
Meyer, A	Electronic Media Coordinator	79,627.73
Meyer, D	Driver Licensing Liaison Officer	59,576.44
Michie, S	Business Analyst	69,803.25
Middlestead, W	Senior Analyst	109,234.06
Middleton, M	Service Centre Representative	51,727.15
Mikawos, J	Claims Supervisor	82,859.27
Milette, C	Case Manager 2	62,702.22
Miller, E	Commercial Specialist	61,461.96 **
Miller, J	Manager, Service Centre	105,965.09
Millman, T	Customer Care Lead	55,500.23
Milner, D	Broker Information Coordinator	51,254.06
Minenna, M	Manager, Driver Education & Training	96,151.79
Mireault, A	Assistant Manager, Internal Audit	91,209.46
Mislan, M	Training & Research Tech - Mech/Auto	67,565.83
Mitra, S	Director, Physical Damage	119,091.15
Moe, C	Analyst	70,215.24
Mohr, T	Senior Analyst	101,710.16
Moins, M	Estimating Supervisor	72,588.73
Moir, K	Road Safety Issues Specialist	63,527.32
Molinski, D	Estimating Supervisor	72,700.23
Molinski, T	Estimator-City	70,279.54
Molotsky, R	Accounting Clerk 2	56,614.56 **
Monchamp, M	Commercial Registrations Representative	52,742.23
Monteith, L	Senior Instructional Designer	78,504.45
Montroy, L	Assistant Manager, Claims Services	91,080.85
Moore, D	Internal Review Officer	78,443.92
Moore, J	Facilities/Premises Administrator	86,088.10
Moore, R	Senior Injury Claims Adjuster	77,484.22
Moorehead, D	Adjuster	55,243.97
Morcos, G	Accountant 1	58,864.92
Morgan, M	Project Coordinator	102,428.52
Morin, L	Paralegal	52,143.67
Morka, R	Manager, Purchasing	80,800.52
Morley, D	Estimator-City Driver Examiner Lead	54,530.77
Moroz, B Morris, R	Estimator-Rural	69,868.77 65,231.48
Morrish, A	Clerk 3 Receiver	51,336.45
Morrison, T	Vehicle Standards Supervisor	70,550.05
Morrissette, R	Administrative Officer 2	55,573.39 **
IVIUITISSELLE, N	Autimistrative Officer 2	33,373.35

<u>Name</u>	Position Title	Total Compensation
Morton, S	Adjuster	55,221.74
Mosiuk, B	Business Analyst	69,472.72
Moski, J	Senior Case Manager	77,665.34
Mowat, B	Senior Analyst	89,871.65
Mulcahy, S	Accountant 1	59,472.70
Mulholland, J	Contact Centre Supervisor	56,362.51
Murphy, C	Facilities/Premises Administrator	77,606.12
Murphy, T	Underwriter 1	54,912.96
Murray, G	Special Investigator	80,465.44
Murray, P	Workplace Safety Advisor	66,449.53
Mutter, J	Accountant 2	73,308.54
Mwanza, O	Manager, Strategic Research	98,295.24
Myshkowsky, S	Executive Assistant	66,114.44
Naldrett, L	Compensation & Benefits Analyst	72,607.51
Naldrett, T	Subrogation Controller	67,875.18
Napier, B	Special Investigator	77,217.91
Natt, G	IT Support Analyst	51,434.68
Nault, J	Estimator-City	63,008.13
Nault, L	Supervisor, Customer Service Centre	61,719.83
Navarro, L	Analyst	64,944.38
Nealin, L	Strategic Communications Coordinator	71,464.81
Neiser, S	Senior Case Manager	81,308.59
Neskar, P	Adjuster Driver Examiner	67,424.48
Neufeld, C	Estimator-City	59,694.04
Neufeld, J	Adjuster	56,028.07
Neufeld, K	Estimator-Rural	68,640.07
Neufeld, P	Senior Systems User Analyst	70,633.07
Neufeld, R	Commercial Estimator	63,213.10
Neufeld, S	Clerk Typist 4	51,452.68
Newman, D	Manager, Premises	111,871.90
Newton, K	Injury Management Coordinator	78,720.93
Newton, T	Underwriting Supervisor	70,872.45
Nickel, D	Senior Business Analyst	73,504.00
Nimmagadda, C	Assistant Manager, Contact Centre Operations	75,045.69
Nixon, L	Special Investigator	81,942.94
Nordstrom, D	Senior Case Manager	79,304.67
Norris, C	Customer Account Representative	52,339.39 80,253.27
Novak, D Nuevo, M	Senior Case Manager Programmer/Analyst	55,101.73
Oberholtzer, J	Senior Adjuster	55,987.24
Odlum, J	Estimator-City	60,193.92
Oertel, E	Facilities Service Technician	69,927.01
Okun, J	Estimating Supervisor	77,529.85
Olijnek, J	Senior Graphic Designer	60,119.28
Olsen, C	Knowledge Management Portfolio Manager	88,466.84
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<u>Name</u>	Position Title	Total <u>Compensation</u>
Olson, A	Adjuster	52,470.22
Onofreychuk, L	Business Analyst	75,285.35
Oravec, D	Project Manager	90,306.06
Orlukiewicz, P	Senior IT Administrator	50,403.37
Orlukiewicz, T	Security Advisor	83,314.04
Osborne, B	Claims Controller - Injury	83,490.93
Owen, R	Senior Case Manager	80,120.80
Owen, S	Legal Processor	60,082.77
Ozouf, R	Senior IT Support Analyst	70,434.37
Pacheco Valente, L	Service Centre Representative	50,661.31
Pagsuyuin, N	Data Entry Supervisor	73,159.44 **
Palatino, R	Auditor 2	70,058.51
Palmer, D	Vice President, Finance & CFO	66,193.64 **
Palsson, S	Accountant 2	72,043.06
Pankratz Wieler, S	Senior Business Analyst	57,545.89
Pariyasamy, K	Manager, Application Services	115,047.54
Park, P	Programmer/Analyst	56,785.56
Partaker, T	Programmer/Analyst	52,033.46
Paton, B	Claims Supervisor	74,195.91
Patton, S	Senior Business Analyst	78,454.80
Paul, B	Case Manager 2	65,445.23
Paul, G	Claims System Analyst	55,087.02
Pauls, T	Systems User Analyst	57,873.62
Paulus, J	Adjuster	58,068.61
Pavluk, T	Adjuster	62,466.80
Pawella, C	Executive Assistant	66,912.27
Pedrosa, J	Case Manager 2	57,727.29
Pellegrino, D	Adjuster	55,563.89
Peloquin, L	Service Centre Representative	50,267.18
Pemkowski, D	Manager, Fair Practices & Customer Relations	109,150.42
Peniuk, K	Adjuster	56,954.50
Penner, H	Vehicle Control Supervisor	71,432.16
Penner, W	Data Architect	109,508.20 **
Pereira, D	Senior Case Manager	80,097.35
Perez, G	Adjuster	58,196.92
Perkins, D	Supervisor, Rural Service Centre	83,128.89
Perreault, S	Service Centre Representative	55,586.51
Peterson, B	Facilities/Premises Administrator	71,774.54
Peterson, D	Senior Case Manager	78,540.58
Peterson, R	Supervisor, Broker Services Audit	51,514.82
Philippot, C	Facilities Service Technician	79,506.73
Phoa, T	Actuarial Analyst	70,637.60
Picard, M	Analyst	73,490.24
Picard, P	Estimator-City	81,198.55
Piec, M	Claims Supervisor	67,907.05

<u>Name</u>	Position Title	Total Compensation
Pilawski, C	Premises Coordinator	63,590.54
Pinette, D	Manager, Physical Damage Technical Services	103,476.02
Pitt, A	Estimator-City	68,878.67
Pitura, L	Manager, Communications	87,664.85
Pitzel, S	Solicitor 2	103,395.68
Place, D	Systems User Analyst	57,719.62
Plenert, H	Estimator-City	63,519.59
Polenski, B	Clerk 4	51,415.98
Pollock, D	Analyst	75,136.73
Pollock, N	Underwriter 2	63,769.87
Poloway, C	Adjuster	55,574.90
Porco, K	Assistant Manager, B I Out of Province	96,626.12
Porter, D	Manager, Regulatory Affairs	93,743.95
Prasek, W	IT Managed Services Analyst	103,251.45
Prendergast, C	Contact Centre Supervisor	58,768.48
Preteau, R	Estimator-City	53,944.11
Price, R	Manager, Service Centre	109,207.59
Proctor, T	Road Safety Issues Specialist	67,597.04
Prozyk, C	Accountant 2	69,233.86
Prysizney, G	Senior Graphic Designer	63,208.67
Puchailo, D	Vehicle Standards Officer	65,646.68
Pura, J	Assistant Manager, Internal Audit	91,209.47
Pura, S	Contact Centre Supervisor	59,372.83
Pursaga, J	Senior Program Delivery Coordinator	84,098.94
Pye, T	Estimator-Rural	68,747.10
Quan, T	Customer Care Lead	53,856.37
Quenelle, G	Estimator-City	65,259.72
Quenelle, R	Fleet Safety Service Representative	53,951.16
Radi, J	Systems User Analyst	61,333.23
Radtke, D	Manager, Application Services	99,609.15
Radwanski, S	Estimating Supervisor	77,062.85
Ragasa, C	Accountant 1	58,300.86
Raimo, G	Systems User Analyst	59,244.60
Rak, A	Senior IT Administrator	51,236.33
Rak, T	Business Analyst	66,000.79
Ramberran, R	Estimator-City	66,498.83
Ramkissoon, C	Organizational Change Management Consultant	73,074.86
Randell, R	Programmer/Analyst	59,737.80
Rapinchuk, B	Manager, Vehicle Standards & Inspections	103,390.84
Redfern, D	Payroll Administrator	65,486.82
Reeves, B	Manager, Service Centre	84,650.49
Reeves, S	Adjuster	54,002.59
Reichert, H	Vice President, Finance & CFO	197,087.17
Reid, L	Senior Analyst	118,309.25
Reilly, C	Corporate Application Architect	97,607.00

<u>Name</u>	Position Title	Total Compensation	<u>1</u>
Reis, D	Senior Case Manager	76,712.33	
Remillard, C	Adjuster	55,213.38	
Remillard, J	Director, Business Strategy	149,426.73	
Rempel, E	Estimator-Rural	68,269.34	
Rempel, S	Clerk Typist 4	52,473.80	
Revet, G	Underwriter 1	54,904.97	
Reznik, L	Associate Adjuster\Driver Examiner 1 - SCO	51,762.43	
Rhodes, A	Commercial Registrations Representative	51,461.67	
Rhodes, T	Senior Business Analyst	75,981.67	
Richard, W	Service Centre Representative	55,414.16	
Richards, E	Special Investigator	78,457.37	
Riel, J	Manager, Internal Audit	116,881.59	
Rieu, D	Senior Systems User Analyst	62,898.75	
Riffel, T	Supervisor, PIPP Benefits Administration	62,914.40	
Ring, M	Assistant Manager, Customer Service	78,084.47	
Ripak, D	Analyst	82,101.48	
Ritchot, G	Claims Supervisor	80,759.68	
Robelo, R	Clerk 2	62,315.82	**
Robert, R	Clerk 4	51,525.28	
Robertson, A	Solicitor 1	74,933.33	
Robertson, R	Senior Business Analyst	86,244.43	
Robidoux, B	Service Centre Representative	52,599.99	
Robins, C	Estimator-Rural	66,881.04	
Robins, D	Vehicle Standards Officer	64,521.99	
Robinson, D	Solicitor 2	112,688.53	
Robinson, P	Risk Management Specialist	91,046.42	
Robson, C	Manager, Broker Support Services	138,693.81	**
Rocan, G	Supervisor, Commercial Claims	85,011.05	
Roed, D	Manager, Road Safety Program	85,786.79	**
Rogers, A	Supervisor, Claims Processing	59,532.66	
Romaniuk, S	Commercial Registrations Representative	55,047.77	
Rosche, R	IT Analyst	84,383.18	
Roschuk, K	Customer Account Representative	52,551.52	
Ross, K	Analyst	77,738.09	
Rosso, J	Driver Examiner	55,210.80	
Rousset, L	Clerk 4	50,152.63	
Rowbotham, P	Court Information Supervisor	50,917.78	
Royal, M	Manager, Safety & Employee & Labour Relations	105,002.43	
Ruffeski, D	Manager, Business Services	89,562.43	
Rutter, C	Business Analyst	68,290.97	
Ryan, S	Service Centre Representative	53,614.17	
Rybachuk, K	Strategic Communications Coordinator	61,027.66	
Ryz, C	Injury Management Coordinator	87,050.62	
Sacher, T	Adjuster	94,868.93	**
Saffie, D	Quality Control Inspector	70,905.93	

<u>Name</u>	Position Title	Total Compensation	<u>l</u>
Safiniuk, B	Senior Business Analyst	78,594.70	
Sahar, N	Executive Director, Service Centre Operations	156,990.97	
Sahar, S	Senior Policy Analyst	51,386.16	**
Salsman, K	Clerk 4	51,476.90	
Saluk, G	Senior Analyst	123,892.12	
Sam, S	Project Manager, Policy & Demand Management	93,486.97	
Samphir, A	Staff Development Consultant	69,822.06	
Sanan, S	Vehicle Standards Officer	63,870.24	
Sarginson, P	Senior Legislation Analyst	59,757.12	
Sass, J	Manager, Service Centre	111,746.23	
Savard, G	Senior Case Manager	76,691.19	
Savard, J	Manager, Budgeting & Accounting	117,491.18	**
Savoie, A	Senior Adjuster	63,044.82	
Sawatsky, D	Special Advisor	107,230.31	
Sawatzky, F	Driver Training Administrator	54,912.79	
Sawatzky, J	Strategic Communications Coordinator	65,914.67	
Sawatzky, L	Training & Research Tech - Mech/Auto	65,034.72	
Sawatzky, N	Road Safety Issues Specialist	58,359.56	
Sawatzky, P	Specialist, Strategic Research	111,612.23	
Scaletta, D	Director, Information & Litigation	138,989.52	
Scarff, N	Senior Adjuster	54,655.42	
Scarfone, S	Solicitor 2	113,286.69	
Schesnuk, D	Senior IT Support Analyst	73,559.36	
Schlag, J	Associate Adjuster	54,046.99	
Schmidt, D	Instructional Designer	64,147.21	
Schmidt, R	Claims Controller - Injury	88,312.34	
Schneiderat, T	Senior Case Manager	72,591.54	
Schroeder, T	Adjuster	54,624.36	
Schulz, G	Assistant Manager, Injury Claims Management	93,525.96	
Schulz, L	Systems User Analyst	56,557.58	
Schwab, D	Senior Business Analyst	81,981.10	
Scott, D	Driver Licensing Liaison Officer	58,832.88	
Scott, J	Senior Adjuster	51,509.98	
Seddon, K	Injury Management Coordinator	87,931.72	
Seddon, T	Case Manager 2	59,492.00	
Sekhon, P	Manager, Knowledge Management Governance/Architectur	•	
Selch, J	Training & Research Tech - Mech/Auto	64,984.16	
Sellar, E	Driver Ed Liaison Officer	56,572.37	
Senden, N	Systems User Analyst	59,883.76	
Seniuk, M	Estimator-City	70,254.07	
Senkowsky, M	Manager, Compulsory Insurance	96,628.33	
Sentner, C	Senior Designer - Online Media	63,431.92	
Senyk, D	Senior Collection Officer	50,622.02	
Serbyniuk, M	Estimator-City	63,308.96	
Serceau, M	Estimator-Rural	66,731.91	

<u>Name</u>	Position Title	Total <u>Compensation</u>
Serceau, R	Estimator-City	62,187.44
Sesay, A	Accountant 2	53,750.17
Setter, M	Buyer	59,332.46 **
Shea, L	Business Analyst	72,631.89
Shemeliuk, T	Associate Adjuster/Driver Examiner 2	59,586.32
Shemeluk, G	Estimator-City	71,230.92
Sheppard, J	Senior Systems User Analyst	67,132.03
Shibata, S	Adjuster	54,638.69
Shields, M	Senior Staff Development Consultant	80,740.63
Shimoda-Loechner, L	IRI Calculator	50,572.53
Shokpeka, E	Assistant Manager, Customer Service	76,860.32
Shostak, M	Instructional Designer	57,040.57
Shum, E	Case Manager 2	57,847.30
Shur, P	Organizational Change Management Consultant	67,761.00
Siepman, K	Training & Research Tech - Mech/Auto	66,914.02
Sigurdson, D	Senior Case Manager	65,367.60
Simard, T	Injury Claims Adjuster	67,850.57
Simmons, A	Senior Case Manager	78,190.71
Single, C	Special Investigator	83,556.52
Skarpias, S	Senior Case Manager	73,907.37
Skelton, C	Senior Case Manager	70,392.69
Skiba, K	IT Analyst	78,927.06
Skibo, W	Commercial Specialist	65,834.19
Skitcko, L	Case Manager 2	56,564.68
Skovgaard, P	Knowledge Management Portfolio Manager	83,819.06
Skrupski, D	Clerk 4	51,273.65
Sladek, J	Estimator-City	73,082.54
Sloggett, P	Medical Fitness Administrator	72,325.93
Smale, P	Customer Account Representative	50,375.97
Smart, S	Vehicle Standards Officer	58,475.92
Smeall, A	Manager, Senior Fleet Safety	69,521.59
Smiley, B	Media Relations Coordinator	108,438.06
Smit, R	Senior Underwriter	74,557.91
Smith, B	Supervisor, Commercial Claims	79,014.49
Smith, C	Claims Supervisor	75,094.59
Smith, R	Supervisor, Customer Service Centre	53,469.05
Snider, D	Out of Province Claims Supervisor	86,138.76
Soares, A	Senior Adjuster	61,036.15
Solinger, R	Reinspection Estimator	67,558.82
Soucy, M	Claims Supervisor	81,075.00
Sparrow, M	Adjuster  Promises Assistant	50,098.98
Spence, C	Premises Assistant	51,436.12
Spence, D	Identity Verification Administrator	51,542.69 80 272 57
Sprenger, W Sproule, R	Manager, Investments Facilities/Premises Administrator	89,373.57 77,859.72
Sprouie, n	i aciiilies/ FTettiises Autililiisti atul	11,039.12

<u>Name</u>	Position Title	Total <u>Compensation</u>	<u>1</u>
Spyracopoulos, T	Assistant Manager, Special Accounts & Subrogation	108,170.95	
St. Germain, P	Data Architect	139,970.06	
St. Godard, C	Injury Management Coordinator	84,860.61	
St. Godard, D	Adjuster	53,303.70	
St. Hilaire, A	Adjuster Driver Examiner	52,183.75	
St. Vincent, K	Case Manager 2	68,785.87	
Stade, R	Analyst	80,963.24	
Stade, S	Senior Case Manager	67,576.74	
Stallard, T	Estimator-Rural	68,791.35	
Stanke, B	Analyst - Rate Groups	50,465.80	
Steeds, K	Internal Review Officer	78,047.98	
Stelma, K	Service Centre Representative	55,997.25	
Stephens, A	Business Analyst	64,632.90	
Stevenson, J	Special Investigator	73,219.07	
Stewart, D	Manager, Bodily Injury Centre	110,928.45	
Stewart, J	Buyer	95,271.71	**
Stock, N	Adjuster	55,167.11	
Stokes, A	Service Centre Representative	50,040.30	
Stoneham, C	Supervisor, Customer Service Centre	56,356.36	
Stonyk, R	Solicitor 2	51,324.99	
Stow, L	Adjuster	60,141.02	
Stoyka, E	IRI Analyst	60,849.04	
Strand, C	Clerk 3 Receiver	58,007.67	
Streib, C	Associate Driver Examiner	50,146.44	
Striefler, D	Lead IT Security Administrator	93,807.79	
Stuart, D	Estimator-City	71,348.79	
Stubbe, K	Clerk 4	51,093.22	
Su, Y	Senior Actuarial Analyst	86,532.49	
Subramaniam, T	Senior Business Analyst	76,262.25	
Sullivan, N	Service Centre Representative	51,987.40	
Surgeoner, S	Purchasing Agent	59,434.62	
Sutherland, P	Customer Care Agent 1	55,442.37	
Swanston, S	Supervisor, Rural Service Centre	73,884.70	
Swayze, C	Service Centre Representative	51,308.81	
Sych, J	Associate Adjuster	50,371.80	
Sykes, R	Estimator-City	66,643.62	
Sylvestre, P	Service Centre Representative	53,640.84	
Syrenne, G	Senior Adjuster	58,904.11 59,719.99	
Sysa, M Tabin, T	Systems User Analyst	•	
	Assistant Manager, Claims Services	73,412.20	
Tackaberry, W	Injury Management Coordinator	83,185.05 64,778,67	
Tackie Anderson, N	Business Analyst	64,778.67	
Tagliaferri, M Talbot, J	Estimator-City Senior Project Manager	64,144.63 86,963.93	
Tam, S	Executive Assistant	56,787.97	
ı aiii, <i>3</i>	Executive Assistant	30,767.37	

<u>Name</u>	Position Title	Total <u>Compensation</u>	
Tan, K	Business Analyst	59,721.57	
Tanchak, P	Senior Analyst, Web Development	88,130.65	
Tapia, R	Driver Examiner	51,379.85	
Tarr, D	Analyst	70,971.53	
Taylor, B	Assistant Manager, Service Centre	89,428.08	
Taylor, B	Senior Case Manager	75,410.56	
Taylor, C	Assistant Manager, Premises	69,424.29	
Taylor, J	Broker Services Administrator	60,724.25	
Taylor, M	Injury Management Coordinator	84,728.89	
Taylor, M	Senior Adjuster	57,424.62	
Taylor, S	Driver Improvement Supervisor	64,533.80	
Tazin, C	Adjuster	52,024.28	
Telfer, D	Business Analyst	72,483.11	
Thiessen, A	Service Centre Representative	51,254.06	
Thomassen, R	Internal Review Officer	78,599.15	
Thompson, J	Adjuster	56,048.18	
Thompson, L	Manager, Change Management	81,509.40	**
Thompson, P	Supervisor, Rural Service Centre	81,013.21	
Thompson, R	Commercial Estimator	60,711.04	
Thompson, T	Adjuster	54,893.31	
Thomson, J	Director, Rural Service Centre Operations	121,310.50	
Thorsteinson, D	Knowledge Management Service Delivery Manager	93,825.15	
Thurston, J	Injury Claims Adjuster	58,952.58	
Tibbs, L	Adjuster	59,073.53	
Tiltman, R	Adjuster	59,605.22	
Timcoe, W	Senior IT Support Analyst	69,368.78	
To, C	IRI Supervisor	85,474.40	
Toms, A	Estimator-City	59,791.45	
Trachtenberg, E	Reviewing Officer	51,094.10	
Travica, D	Case Manager 1	50,062.42	
Trefiak, J	Clerical Supervisor	58,351.36	
Triggs, M	Director, Legal Services Contact Centre Supervisor	165,515.80 58,877.17	
Tripp, S Trivett, D	Senior Underwriter	72,462.96	
Trudeau, J	Senior Case Manager	80,488.76	
Trudeau, K	Senior Project Manager	93,223.12	
Trudel, P	Application Services Advisor	89,662.08	
Tualla, V	Clerk 2	52,833.72	**
Tubman, T	Contact Centre Quality Analyst	55,356.06	
Turcan, L	Adjuster	53,847.16	
Turnley, C	Facilities/Premises Administrator	59,531.10	
Ulicki, K	Corporate Training Facilitator	68,241.07	
Unger, B	Injury Management Coordinator	83,334.88	
Usman Abdi, S	Customer Relations Officer	51,862.57	
Vaccaro, A	Supervisor, Claims Processing	66,363.65	
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<u>Name</u>	Position Title	Total Compensation	<u>1</u>
Van Dam, J	Special Investigator	78,388.30	
Van Den Bosch, B	Manager, Business Analytics	85,095.12	
Van Landeghem, D	Case Manager 2	60,300.86	
Van Oeveren, S	Quality Control Coordinator	77,475.39	
Van Ryckeghem, D	Claims Supervisor	82,129.04	
Vandall, A	HR Advisor	74,361.27	
Vandemosselaer, D	Assistant Manager, IV&DI	60,759.25	
Vandermeulen, K	Corporate Directives Coordinator	53,430.25	
Vandurme, B	Business Analyst	65,582.88	
Varey, A	Estimator-Rural	60,734.53	
Vassart, M	Analyst	65,949.33	
Vaughan, D	Estimator - City	66,958.64	
Veitch, T	Adjuster	58,463.55	
Venton, B	Business Analyst	68,674.35	
Verghetti, A	IT Security Administrator	63,435.52	
Verghetti, T	Senior Subrogation Specialist	71,382.20	
Vermette, C	Adjuster	56,016.92	
Vermette, D	IT Support Analyst	61,584.27	
Vermette, R	Senior IT Analyst	93,327.03	
Vermette, R	Systems User Analyst	78,162.84	
Vernon, T	Analyst	76,650.16	
Viallet, D	Adjuster	55,322.65	
Vital, A	Business Analyst	63,009.94	
Vnuk, J	Service Centre Representative	51,270.63	
Vogel, S	Executive Director, Communications & Community Relations	s 133,295.05	
Von Dohren, R	Accountant 2	74,166.46	
Wachal, K	Manager, Compensation & Benefits	120,031.08	
Waddington, R	IT Analyst	72,217.08	
Wagner, B	Estimating Coordinator	75,262.36	
Wahl, M	Electronic Media Publisher 1	52,346.72	
Wai, E	Analyst	83,342.68	
Walc, M	Assistant Manager, Financial Applications	88,770.51	
Walchuk, M	Vehicle Standards Supervisor	72,424.01	**
Walder, E	Senior IT Administrator - Operations	64,271.13	
Waldner, E	Senior IT Analyst	95,662.49	
Wall, J	Adjuster	55,809.61	
Wang, F	Analyst	68,918.89	
Wang, X	Claims Cost Controller	68,309.24	
Warkentin, L	Service Centre Representative	51,274.48	
Warren, L	Executive Assistant To The President	70,189.74	
Warren, M	Estimator-City	66,546.05	
Waterfield, P	Associate Underwriter	50,662.67	
Watson, D	Community Program Coordinator	59,154.71	
Watson, D	Tech Communications Officer 1	54,646.80	
Way, C	Senior Business Analyst	72,891.18	

<u>Name</u>	Position Title	Total Compensation	<u> </u>
Webb, H	Identity Verification Administrator	51,403.01	
Weger, J	Estimator-Rural	74,079.99	
Weitman, H	Service Centre Representative	72,886.01	**
Wells, H	Case Manager 2	52,600.56	
Welsh, O	Adjuster	55,805.21	
Werbicki, K	Supervisor, IT Services	138,742.97	
Weselake, S	Manager, Community Relations	85,024.89	
Whalen, G	Assistant Manager, Rehabilitation Management	97,661.42	
Wheeler, J	Supervisor, Customer Service Centre	55,755.16	
Whettell, C	Customer Care Agent 2	53,238.95	
White, C	Injury Claims Adjuster	67,432.78	
White, T	Estimator-Rural	69,280.49	
Wiebe, B	Manager, Service Centre	103,768.03	
Wiebe, N	Subrogation Adjuster	54,657.12	
Wiebe, R	Injury Claims Adjuster	59,341.86	
Wiedmer, R	Supervisor, Customer Service Centre	53,724.05	
Wieler, D	Senior IT Support Analyst	66,430.80	
Wilchowy, C	Manager, Web & Multimedia Development	75,907.92	
Wilkinson, M	Security Operations Coordinator	53,770.76	
Williams, A	Senior Analyst	82,740.47	
Williamson, M	Associate Underwriter	50,114.11	
Winter, J	Driver Ed Curr Dev and Trng Support Spec	66,283.88	
Wityshyn, W	Programmer	53,331.08	
Wojtowicz, M	IT Analyst	75,229.60	
Wolch, M	Supervisor, IT Services	88,920.88	
Woloshyn, C	Service Centre Representative	50,743.19	
Woodhurst, D	Driver Ed Liaison Officer	52,366.67	
Woodley, J	Driver Records Coordinator	55,688.93	**
Worboys, C	Analyst	62,459.54	
Wu, R	Estimating Supervisor	63,061.01	
Wurtak, C	Estimator-Rural	74,483.49	
Wycislak, F	Senior Case Manager	67,169.66	
Wynne, R	HRMS Coordinator	128,308.18	**
Wyrzykowski, C	Programmer/Analyst	61,776.45	
Yakel, J	Manager, Vendor Management	85,454.78	
Yanisiw, D	Technical Communications Editor	63,070.79	
Yee, Y	Estimator-City	69,641.83	
Yewdall, H	Senior Injury Claims Adjuster	74,846.46	
Youell, D	Senior Business Analyst	72,884.93	
Young, S	Senior Business Analyst	51,444.99	
Younger, B	Premises Coordinator	58,208.30	
Yu, E	Senior Project Manager	96,808.18	
Zacharias, J	Estimator-Rural	65,716.78	
Zacharias, L	Customer Account Supervisor	54,808.64	
Zadnepreannii, L	Senior IT Support Analyst	78,948.23	

<u>Name</u>	Position Title	Total <u>Compensation</u>
Zajac, B	Adjuster	56,384.17
Zales-Fiolek, L	Supervisor, Rural Service Centre	88,009.04
Zarrillo, D	Senior Business Analyst	79,218.96
Zeaton, G	Manager, Service Centre	90,889.21
Zheng, J	Clerk 2	102,286.45
Aggregate Total Board of Directors		94,978.78

<sup>\*\*</sup> Denotes inclusion of severance pay/retiring allowance

# **NOTE TO SCHEDULE**

## Basis of presentation

The schedule lists employees or individuals affiliated with Manitoba Public Insurance Corporation who received compensation and benefits in excess of \$50,000 for the year ended December 31, 2013. The amounts reported were calculated in accordance with the definition of compensation provided in Section 1 of The Public Sector Compensation Disclosure Act.

# MANITOBA PUBLIC INSURANCE CORPORATION NOTE TO SCHEDULE OF COMPENSATION IN ACCORDANCE WITH THE PUBLIC SECTOR COMPENSATION DISCLOSURE ACT FOR THE YEAR ENDED DECEMBER 31, 2013

The Public Sector Compensation Disclosure Act requires public sector bodies to disclose:

- the compensation paid to the Chairperson of its Board of Directors, if the Chairperson's compensation is \$50,000 or more;
- the aggregate of the benefits paid to the members of the Board of Directors;
- the individual compensation paid to its officers and employees whose compensation is \$50,000 or more.

The compensation amount is calculated in accordance with the requirements of The Public Sector Compensation Disclosure Act.

Compensation includes but is not limited to:

- regular salary;
- all payments for overtime, acting pay, statutory holiday pay, retirement/severance payments, lump sum payments and vacation pay-outs; and
- value of the taxable benefits to board members, officers and employees.

# CAC (MPI) 1-54 Reference: Organization

- a) Please file a copy of the current corporate organization chart, detail and explain any changes that have occurred since last year.
- b) Please prepare and file an analysis describing the duties and responsibilities of each division/function highlighting any changes from last year.

# **RESPONSE:**

a) and b)

# CAC (MPI) 1-55 Reference: Consultants

a) Please complete the following table, by fiscal year, for consultants engaged at MPI:

	2012/13 Actual	2013/14 Actual	2014/15 Budget
Number of Consultants			
Consulting fees incurred	\$	\$	\$
Divisional Area of Engagement			

- b) Please provide a detailed analysis, by project, and area of engagement of the listed consultants.
- c) Please advise which firms currently provide IT consulting services to MPI.

#### **RESPONSE:**

a) b) and c)

CAC (MPI) 1-56 Reference: External Audit and Actuary fees

a) Please complete the following table by fiscal year:

	2012/13 Actual	2013/14 Actual	2014/15 Budget
External Auditor:			
Audit fees			
Consulting/other fees			
Appointed Actuary:			
Valuation fees			
Consulting/other fees			

- b) For both the external auditor and the appointed actuary please explain the purpose and reports produced or opinions rendered for their engagement and fees paid for consulting and other services, if any.
- c) Please file a copy of the engagement letter (service contract) for both the external auditor and actuary as it relates to their services for 2013/14.
- d) Please file a copy of the most recent external auditor search RFP.

#### **RESPONSE:**

a) to d)

CAC (MPI) 1-57 Reference: MPI Internal Indicators –

CAC (MPI) 1-17 of

**2014 GRA** 

Please reproduce the attachment to CAC (MPI) 1-17 from the 2014 GRA, updating it to include 2014 with Loss/Prevention/Road Safety costs removed from Claims Expenses and included with Operating expenses.

### **RESPONSE:**

# CAC (MPI) 1-58

Reference: Trend Analysis – CAC (MPI) 1-18, PUB (MPI) 1-32 (c) and PUB (MPI) 1-52 (a) and (b) from the 2014 GRA

Please reproduce Schedules 1, 2 and 3 in response to PUB (MPI) 1-32(c) and PUB (MPI) 1-52 (a) and (b) from the 2014 GRA, updating it to include 2018/19.

### **RESPONSE:**

# CAC (MPI) 1-59 Reference: Secondment

Has the government seconded any of MPI's staff for whom MPI pays their salary and benefits? If yes, please quantify the operating expense relating to basic insurance.

### **RESPONSE:**

CAC (MPI) 1-60 Reference: Donations and

**Sponsorships** 

Please provide a detailed schedule of donations and sponsorships made by MPI during 2013/14 compared to 2012/13.

## **RESPONSE:**

CAC (MPI) 1-61 Reference: 2014 GRA CAC (MPI) 1-20

The following indicators and calculations were confirmed by MPI in information requests CAC (MPI) 1-20 in the 2014 GRA.

Indicator	2006/7	2007/8	2008/9	2009/10	2010/11
i. Operating Expense Ratio	14.2%	15.0%	15.0%	16.0%	16.2%
ii. Claims Expense Ratio	14.1%	14.7%	14.8%	14.8%	15.2%
iii. Loss Ratio	82.8%	79.0%	74.5%	70.9%	44.4%
iv. Combined Ratio	111.1%	108.6%	104.3%	101.8%	75.8%
v. Investment Income Ratio	16.1%	16.4%	0.5%	11.6%	11.2%
vi. Investment Yield	6.3%	4.0%	(5.8)%	13.7%	8.4%
vii. Operating Expense/Policy	\$48	\$50	\$48	\$54	\$65
viii. Claims Expense/Claims	\$409	\$416	\$487	\$482	\$487
ix. Policies/Support Employee	2,485	2,499	2,556	2,446	2,590
x. Claims/Claims Employee	253	266	233	234	245
xi. Premiums/Policy	\$776	\$777	\$794	\$807	\$804
xii. Insurance Costs/Capita	\$553	\$566	\$593	\$606	\$615

Indicator	2011/12	2012/13	2013/14	2014/15	2015/16
i. Operating Expense Ratio	16.4%	17.1%	16.4%	16.0%	15.6%
ii. Claims Expense Ratio	16.1%	16.5%	16.1%	16.0%	15.3%
iii. Loss Ratio	80.4%	87.4%	84.5%	79.2%	76.8%
iv. Combined Ratio	112.8%	121.0%	117.0%	111.2%	107.6%
v. Investment Income Ratio	13.3%	9.0%	15.0%	7.7%	5.3%
vi. Investment Yield	6.4%	6.9%	6.2%	3.5%	2.6%
vii. Operating Expense/Policy	\$61	\$67	\$67	\$69	\$68
viii. Claims Expense/Claims	\$541	\$521	\$514	\$543	\$549
ix. Policies/Support Employee	2,560	2,409	2,368	2,426	2,468
x. Claims/Claims Employee	241	255	257	259	259
xi. Premiums/Policy	\$790	\$736	\$764	\$801	\$823
xii. Insurance Costs/Capita	\$624	\$589	\$614	\$646	\$668

Indicator	2016/17	2017/18	2018/19
i. Operating Expense Ratio	%	%	%
ii. Claims Expense Ratio	%	%	%
iii. Loss Ratio	%	%	%
iv. Combined Ratio	%	%	%
v. Investment Income Ratio	%	%	%
vi. Investment Yield	%	%	%
vii. Operating Expense/Policy	\$	\$	\$
viii. Claims Expense/Claims	\$	\$	\$
ix. Policies/Support Employee			
x. Claims/Claims Employee			
xi. Premiums/Policy	\$	\$	\$
xii. Insurance Costs/Capita	\$	\$	\$614

(i) Operating Expense Ratio (%) (The numerator to include the following—commissions, operating expenses, premium taxes and regulatory/appeal expenses.)

The ratio of operating expenses to net premiums earned measures the company's operational efficiency in underwriting its book of business.

(ii) Claims Expense Ratio (%) (The numerator to include claims expenses and loss prevention/road safety expenses.)

The ratio of claims expense to net premium earned measures the company's efficiency in adjudicating claims.

(iii) Loss Ratio (%)

The ratio of claims incurred to net premiums earned measures the company's underlying profitability, or loss experience, on its book of business.

(iv) Combined Ratio (%)

The sum of the loss, operating expense and claims expense ratios, not reflecting investment income or income taxes, measures the company's overall underwriting profitability, and a combined ratio of less than 100 indicates an underwriting profit.

(v) Investment Income Ratio (%)

The ratio of investment income to net premiums earned measures the contribution of investment income toward the combined ratio in measuring the company's overall net profitability.

(vi) Investment Yield (%)

To be calculated on current market value basis as per Annual Reports.

(vii) Operating Expense/Policy (\$)

The operating expense/policy dollar value measures the cost efficiency or activity cost of issuing a policy.

(viii) Claims Expense/Claims (\$)

The claims expense/claims dollar value measures the cost efficiency or activity cost of adjudicating a claim.



(ix) Policies/Support Employee (#)

The policies/support employee number value measures the number of policies a support employee can handle or the number of support employees required to manage policies effectively and efficiently.

(x) Claims/Claims Employee (#)

The claims/claims employee number value measures the number of claims a claims employee can handle or the number of claims employees required to manage claims effectively and efficiently.

(xi) Premiums/Policy (\$)

The premiums/policy dollar value measures net premiums written changes per policy, year over year, even if there is no premium rate increases or decreases.

(xii) Insurance Costs/Capita (\$)

The insurance costs/capita dollar value measures net premiums written (basic insurance) changes per capita based on the provincial population providing a social or public cost indicator.

- a) Please update the tables with the 2013/14 actual indicators and reference the source data in the 2015 GRA and provide detailed calculations.
- b) Please update the tables with 2014/15 through to 2018/19 with updated forecasted indicators and reference the source data in the 2015 GRA and provide detailed calculations.
- c) Please elaborate on any significant differences in the indicators from last year.

#### **RESPONSE:**

a) to c)

# CAC (MPI) 1-62

Reference: Claims and Operating Expenses statistics – CAC (MPI) 1-21 from the 2014 GRA.

- a) Please update and file Tables 1 to 4 as per CAC (MPI) 1-21 (a) from the 2014 GRA with 2015 GRA "actual" and "forecasted" information.
- b) Please elaborate on any significant differences from last year values.

# **RESPONSE:**

- a) Please refer to CAC (MPI) 1-2 a) and b).
- b) Please refer to CAC (MPI) 1-2 a) and b).

# CAC (MPI) 1-63

Reference: Annual Audited Financial Statements Ended February 28, 2014 pages 27 and 28.

Preamble: Provision for Employee Current and Future Benefits

Please file a copy of the December 31, 2013 external actuary's report relating to the actuarial valuation of future employee benefits.

## **RESPONSE:**

Please see PUB(MPI)1-28.

CAC (MPI) 1-64 Reference: Pro Formas Volume II page 7

Preamble: Normal operations expenses indicate a higher external labour costs required to support project delivery of \$2,223,000 and initiative implementation expense indicate an additional external labour expense for unbudgeted projects (ITO transition) of \$1,470,000.

Please provide a detailed analysis of these increased external labour costs which were over and above the forecast provided in the 2014 GRA.

## **RESPONSE:**

CAC (MPI) 1-65 Reference: Volume II Expenses
E.2.1.1 page 14

Preamble: "Management will undertake a careful analysis of each vacated position to assess the value to the Corporation and will look to eliminate up to 30 positions."

- a) Please advise if the 30 positions have been removed from the staffing compliment for the forecasting period. If not, why not?
- b) If not 30, please advise of the number of positions that have been removed from the staffing compliment for the forecasting period. Please explain why they were removed.

# **RESPONSE:**

a) and b)

The specific positions the Corporation will look to eliminate have not been identified.

CAC (MPI) 1-66 Reference: Volume II Expenses
E.4 page 23

Preamble: Capital expenditures:

(\$000)	13/14A	14/15P	15/16P	16/17P	17/18P	18/19P
Land & Buildings	\$2,507	\$2,245	\$2,504	\$741	\$1,182	\$717
Automobiles	569	609	1,253	748	1,105	1,158
Furniture & Equipment	1,034	1,215	1,518	999	999	999
Total	\$4,110	\$4,069	\$5,275	\$2,488	\$3,286	\$2,874

- a) Please provide a detailed analysis of the items purchased for 2013/14 for Land & Buildings, Automobiles and Furniture and Equipment.
- b) Please explain the significant increase in Automobile expenditures in 15/16, 17/18 and 18/19.

#### **RESPONSE:**

- a) Please refer to CAC (MPI) 1-2 a) and b).
- b) The corporate guideline is to replace vehicles every seven years or 160,000 kms. The need to replace vehicles is dependent on these factors as well as the type of vehicle and its use. As a result, each year the fleet is reviewed and estimates made on replacements based on these factors which does not result in smooth growth factors but rather is based on usage. The policy is reviewed every two years and is scheduled for a review in 2014/15.

# CAC (MPI) 1-67

Reference: Volume I Pre-Filed Testimony PowerPoint Presentation
Corporate Priorities page 2

Preamble: "Prepare the organization for the digital economy; adapt to meet new operating realities"

Please elaborate if the Corporation anticipates a reduction in the use of physical space as it moves to a digital economy. If yes, is the Corporation anticipating leasing some of its Service Centre plant space to commercial tenants? Please elaborate. If not, please explain.

#### **RESPONSE:**

CAC (MPI) 1-68 Reference: Volume II Expenses

Appendix 1 page 4.

Preamble: Data Processing Variance of \$4 million 2013/14. "\$4.0 million increase over the 2014 GRA related to greater than forecasted expenses for initiative implementation external labour costs."

Please provide a breakdown of the variance related to external labour costs by initiative.

### **RESPONSE:**

CAC (MPI) 1-69 Reference: Volume II Expenses

Appendix 1 page 3.

Preamble: Special Services for basic insurance.

Please provide a detailed account analysis of the special services amount of \$5,164,000 for basic insurance or corporate for 2013/14.

### **RESPONSE:**

CAC (MPI) 1-70 Reference: Volume II Expenses

Appendix 1 page 10.

Preamble: Postage for basic insurance.

Please elaborate on the zero allocation of postage expenses to claims expense in the 2015 GRA for years 2014/15 through to 2017/18.

#### **RESPONSE:**

For the 2014/15 budget, the Corporation centralized all postage expenses within the Administrative Services unit. This unit is allocated 100% to operating expenses. This approach remains consistent throughout the forecast period.

CAC (MPI) 1-71 Reference: Volume II Expenses

Appendix 9 page 40.

Preamble: IBM Data Centre vs. IT Compensation.

Please elaborate as to the continuing IT compensation expense of about \$10 to \$12 million per year from 2014 through to 2018 vs. the IBM Data Centre managed service model expense of about \$7 million per year – one would expect the IT compensation expense amount to decline as a certain amount of work has been transferred to IBM.

## **RESPONSE:**

Staff impacted by the transition have been redeployed/retrained to support corporate priorities.

CAC (MPI) 1-72 Reference: Volume III Benchmarking
Appendices Page 1 and 7

Preamble: Operational Efficiency and Claims Performance

Please provide targets for MPI's Corporate Performance Measures for years 2013, 2014 and 2015 for each Metric for Operational Efficiency and Claims Performance. If targets have not been developed, please elaborate as to when they will be developed.

## **RESPONSE:**

# CAC (MPI) 1-73 Reference: SM.2

Preamble: On page 19 of Section SM.2 a comparison is made between MPI and other auto groups.

Please specify which insurers are included in the Canadian Personal Auto Group, the Canadian Benchmark Group and the US Personal Auto Group.

### **RESPONSE:**

CAC (MPI) 1-74 Reference: SM.2

Preamble: On page 21 of section SM.2 a comparison is made of insurance rates in Winnipeg, Calgary and Toronto.

What companies are being used in this comparison?

### **RESPONSE:**

# CAC (MPI) 1-75 Reference: SM.1 Value to Manitobans

Preamble: Bodily Injury Improvement Initiative (BI3) page 26.

The Corporation has realized savings of \$16 of the \$41.9 million projected. Of the \$16 million saved to-date, please provide a detailed analysis showing the amount relating to reductions in claims leakage and productivity improvements.

### **RESPONSE:**

Please refer to 2012 Rate Application, Post Implementation Review, Volume III AI.12 PIPP Infrastructure Study.

CAC (MPI) 1-76 Reference: Volume II Expenses E.4.2 page 26.

Preamble: HRMS project and ongoing expenses for basic insurance are expected to be:

Year	Amount Phase 1 & 2 (\$000)	Amount Phase 3 & 4 (\$000)	Total (\$000)
2015P	\$1,984	\$0	\$1,984
2016P	2,000	196	2,196
2017P	1,993	196	2,189
2018P	1,982	196	2,178
2019P	1,982	196	2,178
Total	\$9,941	\$784	\$10,725

- a) Please provide a detailed analysis of the total project expenditure to implement the HRMS system, by account category, compared to the initial business case estimates and explain any significant difference.
- b) Please file a copy of the post-implementation review report for the HRMS project.
- Please detail and elaborate on the benefits achieved to-date, for basic insurance, by implementing the HRMS system.

### **RESPONSE:**

- a) This analysis is not available at this time as all phases of the project are not yet complete.
- b) and c) Following the completion of phases 3 and 4, a post implementation review report will be completed and is expected to be filed with the 2017 GRA.

CAC (MPI) 1-77 Reference: Volume II Expenses E.4.2 page 24.

Preamble: Total Provision for Future Projects is as follows:

(\$000)	2016P	2017P	2018P	2019P
Deferred	\$4,793	\$10,384	\$11,183	\$11,183
Capital	399	799	799	799
Expense	2,397	3,195	3,994	3,994
Total	\$7,589	\$14,378	\$15,976	\$15,976

- a) Please confirm that the Provision for Future Projects do not impact the proposed rate change of 3.4% effective March 1, 2015. If the provision for future projects impacts the rate change, please quantify the financial impact.
- b) Please explain, in general terms, the projects/initiatives anticipated requiring a total provision for the years 2016 through to 2019 of \$53,919,000.

#### **RESPONSE:**

- a) Refer to PUB (MPI) 1-74 (b).
- b) Refer to PUB (MPI) 1-74 (b).

CAC (MPI) 1-78 Reference: Volume II Expenses

E.4.3.1 page 25 and 28.

Preamble: BI3/FINEOS Upgrade

Please elaborate on the costs of (\$289,000 plus \$1,257,000) \$1,546,000 to upgrade the BI3/FINEOS. Please provide a copy of the upgrade cost benefit analysis and project plan.

#### **RESPONSE:**

The upgrade is a contractual requirement arising from the initial MPI/Fineos agreement.

CAC (MPI) 1-79 Reference: Volume II Expenses

Appendix 1 page 16.

Preamble: Security Strategy & Roadmap initiative

Please provide a description of the Security Strategy & Roadmap initiative, including a cost benefit analysis, if available.

## **RESPONSE:**

Please see PUB (MPI) 1-78.

CAC (MPI) 1-80 Reference: Volume III AI.10 Charter PDR page 6.

Preamble: "The following two pilots are related to the Collaborative Estimating and are expected to start in fourth quarter 2013 and the third quarter 2014."

Please elaborate on the success of the 'pilots' to-date and provide the results of the Collaborative Estimating pilot from the fourth quarter 2013.

#### **RESPONSE:**

A post implementation review report will be completed once the Collaborative Estimating initiative is concluded.

CAC (MPI) 1-81 Reference: Volume III AI.10 Charter PDR page 8.

Preamble: Loss Prevention Project RFP

Please file a copy of the Loss Prevention Project predictive analytics software RFP.

### **RESPONSE:**

CAC (MPI) 1-82 Reference: Volume III AI.10 Charter PDR page 8.

Preamble: PD Re-engineering Program Charter budget of \$65,485,774

Please provide a copy of the detailed budget, by cost category/project, and broken down by fiscal year for the Physical Damage Re-engineering Program.

### **RESPONSE:**

Please refer to PUB (MPI) 1-75.

CAC (MPI) 1-83 Reference: Pre-Filed Testimony page 13

Preamble: MPI states on page 13 of the Pre-Filed Testimony section that "No driver is discriminated against on the basis of age, gender or marital status."

Is it not true that some drivers in Manitoba pay more for their auto insurance than they would if rates were set using a more granular rating algorithm? Stated another way, is it not true that subsidization exists between drivers in Manitoba?

## **RESPONSE:**

Not true.

# CAC (MPI) 1-84 Reference: SM.2

Preamble: On page 28 of section SM.2 a comparison is made between MPI, SGI and ICBC on how the consumer feels when dealing with the three corporations.

Has the Corporation looked at these types of comparisons with private insurers? If not, why not?

### **RESPONSE:**

CAC (MPI) 1-85 Reference: SM.2

Preamble: On page 33 of section SM.2 it insinuates that SGI may have higher public support because they also offer home insurance.

Please give supporting documents for this insinuation.

### **RESPONSE:**

# CAC (MPI) 1-86 Reference: PUB Orders SM.6 Page 6

Preamble: Five-Year IT Strategic Plan. "Second, the Board and Management committee will be developing an overall vision and strategy for the next five years."

Please elaborate whether the mentioned vision and strategy relates to the Five-Year IT Strategic Plan or the Corporate Strategic Plan. If the mentioned vision and strategy relates to the IT Strategic Plan, please elaborate on the expected content of the plan.

## **RESPONSE:**

# CAC (MPI) 1-87 Reference: PUB Orders SM.6 Page 7

Preamble: "With respect to information and technology support for the overall business strategy, the Business Transformation Office has developed a structured methodology whereby a portfolio of technology enabled business transformation initiatives is developed which support the stated business strategy."

Please file a copy of the structured methodology referred to in the preamble.

#### **RESPONSE:**

# CAC (MPI) 1-88 Reference: Audit Committee Minutes

Please file a copy of the Audit Committee of the Board of Directors Minutes for the 2013/14 fiscal year.

## **RESPONSE:**

## CAC (MPI) 1-89

Please indicate, list and explain any technical, process, information technology or management constraints that the PUB should take into consideration in issuing its 2015 GRA ruling effective March 1, 2015.

#### **RESPONSE:**

Rates are set within the classification system defined within the regulations. The classification system has been established over a very long period of time and is therefore imbedded in systems and processes that cannot easily be changed. The customer-based system that began to be in place with the introduction of Autopac On-Line in 1995 is imbedded in the classification system in Regulation and that is what defines how customers are grouped into various rating classification cells. For example, the system is customer-driven and therefore the same DSR rate must apply to all the policies owned by that customer because that is the specifications included in the Regulations to the *Manitoba Public Insurance Corporation Act*. Also, ordering a rate file for part of an insurance year and a different rate file for the balance of an insurance year is not possible because of constraints related to the requirements of system version controls and the March 1 insurance year start date as well as the long standing policy consideration to ensure all customers receive the same rating treatment.

The foregoing is intended to provide a context regarding the potential issues that could be encountered and is not, in any way, intended to be a comprehensive and complete identification of potential problem areas. To avoid these problems, it is preferred that potential changes be explored during the hearing process, in order that the Corporation be given an opportunity to comment, on the public record, regarding the feasibility.

To allow sufficient time to reflect changes in Basic rates it is imperative that the PUB order be received by the Corporation by Monday, December 1, 2014.

# CAC (MPI) 1-90

Please indicate, list and explain any financial transactions under consideration or in progress that have not been explicitly reported in the 2015 GRA, either by management, the Board of Directors or Government, which could impact the 2015 GRA proposed rates.

#### **RESPONSE:**

There is nothing to report.

# CAC (MPI) 1-91 Reference: Crown Corporation Council

Please file copies of the last four quarterly reports prepared by the Crown Corporations Council relating to MPI.

## **RESPONSE:**

Please see the reports at the website of the Crown Corporations Council at:

http://www.crowncc.mb.ca/en/about/reports/

# CAC (MPI) 1-92 Reference: Compliance to Legislation

Please file a copy of the most recent Compliance to Legislation Authority Audit report.

## **RESPONSE:**

# CAC (MPI) 1-93 Reference: Risk Profile

- a) Please indicate whether there have been any material changes to the Corporation's risk profile since last year's GRA, with respect to financial risk, operational risk, continuation of service risk, unpaid claims risk, information technology risk or with respect to any other risk factors. If so, please elaborate and provide details.
- b) Please indicate whether the Corporation expects any changes to its risk profile going forward through the outlook period. If so, please elaborate and provide details.

#### **RESPONSE:**

- a) No material changes to the risk profile, other than as discussed in the Rate Application regarding interest rate forecasting risk which together with a net loss in 2013/14 and inadequate capital reserves has increased our overall financial risk.
- b) See response to a).

CAC (MPI) 1-94 Reference: 2013 Annual Report
AI.6 Part 1B pages 31.

Preamble: In the Risk Management section of the 2013 Annual Report the Corporation describes the corporate Risk Management Framework and risk mitigation strategies.

- a) Please elaborate on the Risk Management Framework.
- b) Have there been any changes to the Risk Management Framework since last year.

#### **RESPONSE:**

CAC (MPI) 1-95 Reference: 2013 Annual Report

AI.6 Part 1B pages 31.

Preamble: "Much of the risk management process is focused on Goal 1. Rates, on average, will be lower than those charged by private insurance companies for comparable coverage and services." The key risk mitigation areas are listed on page 31.

Please list or elaborate on the key risk mitigation areas for Goals 2 to 7 described in the Corporate Strategic Plan 2014-2018 Volume III AI.6 Part2 pages 12 to 17.

## **RESPONSE:**

CAC (MPI) 1-96 Reference: Value to Manitobans – SM.1

On page 42 of section SM.1 of the rate application it states "Manitoba Public Insurance relies on the Canadian Loss Experience Automobile Rating (CLEAR) system". Since the CLEAR tables were not published in 2013 what CLEAR table did the Corporation rely upon for this year's rate application?

#### **RESPONSE:**

As reported in the 2014 GRA (Volume III, AI.4 Vehicle Classification System, section AI.4.3.A), for 2014/15, CLEAR recommendations were not available on time from IBC. As a result, the Corporation transitioned to a one year lag in using CLEAR rating recommendations. For 2015/16, the Corporation used the CLEAR recommendations published on July 29, 2013.

CAC (MPI) 1-97 Reference: AI.4

With reference to Section AI.4.1 has the Corporation completed any territorial analysis to validate the current rating territories? If not, why not? If so, when was this analysis completed? Please provide the results.

#### **RESPONSE:**

The Corporation does not consider changes to Basic coverage and territories as this is the exclusive purview of the Legislature of Manitoba through amendments to *The Manitoba Public Insurance Corporation Act* and regulations thereunder. The Corporation administers the universal compulsory automobile insurance plan and implements changes as legislated by government.

CAC (MPI) 1-98 Reference: Volume I Overview page 25

Preamble: 2015/16 and 2016/17 Average Rating Period Forecast – 2015 GRA versus 2014 GRA ('000's)

 a) Please file the detailed operating statements comprising the 2015 GRA and 2014 GRA averages.

Preamble: Per the table on page 25 of the Overview, when summing the Earned Revenues, Claim Costs, Expenses and Investment Income the resulting Net (Loss) is as follows:

	2015GRA	2014GRA	Difference
Per table	(\$15,880)	\$11,339	(\$27,219)
CAC Summation	(\$35,150)	\$15,398	(\$50,548)

b) Please explain the reason for the difference between the table and the CAC Summation.

#### **RESPONSE:**

a) Refer to PUB (MPI) 1-4 b) for the 2015 GRA operating statement before any 2015 rate increases.

Refer to 2014 GRA Volume I Pro Forma section for the 2014 operating statement.

b) The total average net loss and income for the respective GRAs in the Overview table are correct. The overview table included the 2015/16 investment income amounts only for both the 2014 GRA and the 2015 GRA, not the average of 2015/16 and 2016/17. This is why the columns do not add to the totals shown. The subsequent explanation of the variance in the overview also relates to the

one year difference, not the average. A full explanation of investment income differences from last year's GRA for the 2014/15, 2015/16, 2016/17 and 2017/18 years can be found in Volume II Investment Income, Section II.11.

CAC (MPI) 1-99 Reference: 2013 Annual Report

AI.6 Part 1B page 23

Preamble: The rate comparison chart in the Annual Report measures Winnipeg, Calgary and Toronto.

Please prepare and file an updated chart including Halifax, Regina and Vancouver.

## **RESPONSE:**

CAC (MPI) 1-100 Reference: Volume II Pro Formas page 9

Preamble: Actual premiums written from 2013/14 are less than expected by \$3,990,000.

Please provide a detailed analysis of the decrease in premiums written compared to the forecast in the 2014 GRA.

#### **RESPONSE:**

The decrease in premiums written was primarily due to a lower than anticipated volume increase and a higher than anticipated fleet rebate.

CAC (MPI) 1-101 Reference: Volume II R.1.3 Net Fleet

Rebates page 13

Preamble: "The loss experience is the ratio between all losses paid by the Corporation and fleet premiums."

For greater clarity, please elaborate on the loss experience: is the ratio between all 'losses paid' or all 'losses incurred'?

#### **RESPONSE:**

All losses incurred by the Corporation subject to the cap on individual losses of \$25,000.

CAC (MPI) 1-102 Reference: Volume II R.4 Service

**Fees and Other Revenue** 

page 25

Preamble: "This year's forecast is higher than last year's forecast mainly as a result of...ignition interlock program."

Please explain the ignition interlock program and the fees earned from this program.

#### **RESPONSE:**

The forecast of Service Fees and Other Revenues was developed on the basis that a portion of fees from the Ignition Interlock Program are allocated to Basic. This is an error and will be corrected in the 2016 GRA. The restatement for 2015 is less than \$120,000 and an amended allocation will not be forthcoming.

CAC (MPI) 1-103 Reference: Volume II R.4 Service

**Fees and Other Revenue** 

page 31

Preamble: "Miscellaneous fees include ... lemon law revenue...."

Please elaborate on the lemon law revenue and the amount of fees collected from this source for the last fiscal year.

#### **RESPONSE:**

Lemon law revenue was incorrectly included in the examples of miscellaneous fees provided in Volume II Revenues, section R.4 Service Fees and Other Revenues (page 31). These revenues are not allocated to Basic.

CAC (MPI) 1-104 Reference: Volume II R.4 Service

**Fees and Other Revenue** 

page 31

Preamble: "Unclaimed cheque forecasts are based on an analysis of the current amount of outstanding premium rebate cheques plus the expected amount of normal operations write offs."

Please file a copy of the 'analysis' referred to in the preamble.

#### **RESPONSE:**

The forecasted unclaimed cheques for 2014/15 are based on 2013/14 actual write offs. In 2013/14 the basic portion of actual write offs excluding rebate checques was approximately \$425,000. This amount is reflected in the forecasted miscellaneous fees. The forecasted amount for unclaimed cheques is \$500,000 per year and remains static throughout the forecast.

CAC (MPI) 1-105 Reference: Volume II Revenues

Appendix A page 1

Preamble: Driver Premium Forecast by DSR Level.

Please update and extend the table on page 1 of Appendix A to include Driver Premiums Written by DSR Level for fiscal years 2013 through to 2017.

#### **RESPONSE:**

Please see attached.

# Manitoba Public Insurance Driver Premium Forecast by DSR Level

	Written Premium				
DSR LeveL	2013(a)	2014	2015	2016	2017
15	\$2,711,130	\$2,699,015	\$3,759,573	\$4,053,450	\$4,131,263
14	\$253,840	\$1,874,188	\$834,659	\$540,457	\$845,024
13	\$2,126,172	\$914,061	\$595,803	\$947,717	\$575,365
12	\$919,405	\$573,824	\$944,247	\$508,399	\$490,582
11	\$643,002	\$1,000,828	\$539,911	\$534,163	\$827,012
10	\$1,080,240	\$582,827	\$593,340	\$926,502	\$614,002
9	\$579,154	\$629,225	\$1,054,814	\$574,084	\$591,652
8	\$831,017	\$1,332,793	\$717,423	\$768,977	\$966,615
7	\$1,348,521	\$699,335	\$805,755	\$991,681	\$697,739
6	\$647,752	\$817,085	\$979,204	\$690,982	\$767,171
5	\$890,535	\$1,033,795	\$743,839	\$843,528	\$962,238
4	\$1,010,292	\$720,820	\$854,190	\$961,629	\$854,366
3	\$896,157	\$1,088,125	\$1,204,640	\$1,104,554	\$1,202,909
2	\$1,196,182	\$1,305,233	\$1,244,622	\$1,361,428	\$1,446,360
1	\$1,618,722	\$1,615,788	\$1,766,599	\$1,869,838	\$1,897,074
0	\$2,606,769	\$2,829,695	\$2,988,388	\$3,086,830	\$3,222,765
-1	\$1,023,501	\$1,140,653	\$1,158,962	\$1,264,021	\$1,353,500
-2	\$952,605	\$944,627	\$1,048,231	\$1,118,026	\$1,144,214
-3	\$1,162,765	\$1,354,238	\$1,467,625	\$1,515,874	\$1,642,047
-4	\$1,519,561	\$1,708,895	\$1,832,467	\$2,020,477	\$2,156,328
-5	\$1,698,056	\$1,853,271	\$2,053,634	\$2,171,992	\$2,292,409
-6	\$1,023,403	\$1,213,578	\$1,325,722	\$1,439,209	\$1,565,009
-7	\$1,385,600	\$1,581,307	\$1,764,297	\$1,949,301	\$2,090,133
-8	\$897,142	\$1,043,409	\$1,204,515	\$1,326,653	\$1,449,751
-9	\$1,082,224	\$1,288,428	\$1,436,669	\$1,577,644	\$1,713,211
-10	\$954,748	\$1,111,771	\$1,271,628	\$1,417,884	\$1,542,246
-11	\$892,320	\$1,071,104	\$1,237,247	\$1,367,003	\$1,494,427
-12	\$1,015,508	\$1,267,566	\$1,462,595	\$1,649,028	\$1,815,217
-13	\$1,107,170	\$1,460,960	\$1,803,773	\$2,113,635	\$2,392,233
-14	\$835,714	\$1,038,052	\$1,208,873	\$1,356,272	\$1,493,916
-15	\$878,677	\$1,099,557	\$1,299,883	\$1,492,068	\$1,661,901
-16	\$927,523	\$1,184,140	\$1,416,597	\$1,618,185	\$1,799,791
-17	\$649,226	\$837,932	\$1,003,506	\$1,152,176	\$1,288,620
-18	\$613,002	\$810,603	\$994,238	\$1,161,314	\$1,310,051
-19	\$598,094	\$765,030	\$916,518	\$1,049,111	\$1,168,535
-20	\$3,159,974	\$4,500,137	\$5,750,479	\$6,902,774	\$7,952,169
Total	\$41,735,704	\$46,991,897	\$51,284,467	\$55,426,865	\$59,417,843
Finance Adjustment*	(\$215,704)	\$0	\$0	\$0	\$0
ProForma Total	\$41,520,000	\$46,991,897	\$51,284,467	\$55,426,865	\$59,417,843

 $<sup>\</sup>boldsymbol{\ast}$  The actual amount of premium collected from customers is slightly lower than estimated by the DSR

model because of customer appeals and other factors.



CAC (MPI) 1-106 Reference: Referring to page 13 of

the Revenues section

Please give the loss ratios for fleets for 2011/12 through 2013/14.

#### **RESPONSE:**

Refer to the table below.

Fiscal	Total	Net	Net	Reported	Factor to	Ultimate	Claims	Loss
Year	Premium	Rebates	Premium	Losses	Ultimate	Losses	Expense	Ratio
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
2011/12	57,168	13,251	43,917	25,943	1.0428	27,053	4,761	72.4%
2012/13	59,045	14,384	44,661	26,055	1.0628	27,691	4,874	72.9%
2013/14	57,983	11,930	46,053	26,726	1.1820	31,590	5,560	80.7%
Total	336,984	79,433	257,551	147,884		156,725	27,584	71.6%

#### Notes:

[2] & [3]: Per Volume II, Revenues, Page 14

[4] = [2] - [3]

[6]: Per Volume III, Al.7, Actuary's Report as at Feb 14, Exhibit 2, Sheet 14, Column 7 / Column 5

[7] = [5] \* [6]

[8] = [7] \* 17.6% (Ratio of Claims Expense to Claims per RM.4, Page 37)

[9] = ([7] + [8]) / [4]

CAC (MPI) 1-107 Reference: Referring to page 16 of

the Revenues section

Please give the actual anti-theft discounts for the years 2010/11 to 2013/14.

# **RESPONSE:**

Anti-Theft Discounts (\$000)

Actuals					
2010/11	2011/12	2012/13	2013/14		
6,819	6,148	5,591	5,065		

CAC (MPI) 1-108 Reference: Revenues page 23

Preamble: On page 23 of the Revenues section it is noted that the table shows that the vehicle units per earned driver unit is higher for those drivers in the higher DSR levels.

Has the Corporation considered that those in the higher DSR levels may be insuring vehicles that they do not actually drive? That is, could it be that some of those drivers in the higher DSR levels insure vehicles for their family members or friends?

#### **RESPONSE:**

This issue was discussed at length in the DSR hearing held in 2009.

# CAC (MPI) 1-109 Reference: Revenues page 31

Preamble: On page 31 of the Revenues section there is reference to "lemon law revenue".

Please explain what that refers to.

#### **RESPONSE:**

CAC (MPI) 1-110 Reference: Pre-Filed Testimony page 23

Preamble: "..I ask that the Board work with me to come to agreement on ...A risk based interest rate forecasting methodology..."

- a) In general terms, please elaborate on what would constitute a risk based interest rate forecasting methodology.
- b) Please compare and contrast the proposed risk based interest rate forecasting methodology to the current methodology.
- c) Please elaborate on the P & C Industry use of the risk based interest rate forecasting methodology.
- d) Please elaborate on the use by SGI and ICBC of the risk based interest rate forecasting methodology.

#### **RESPONSE:**

a) , b), c), & d)

During the 2014 GRA hearings, the Corporation indicated that it had adjusted the results of the standard interest rate forecasting methodology it had been using (i.e., taking the average of the five major banks and Global Insights) and adjusted it based on the Corporation's risk tolerance (essentially, it took the banks' and Global forecast and stretched the forecasted increase over ten years instead of five). It is this adjusted forecast that is referred to as the "risk based interest rate forecasting methodology"

# CAC (MPI) 1-111 Reference: Volume I Overview page 29

Preamble: "...while we wait for the results of the asset liability matching study..."

- a) Please advise when the asset liability matching study will be completed and, when completed will the study be filed with PUB?
- b) Please file a copy of the asset liability study Request for Proposal, Terms of Reference and the service agreement with the consulting firm engaged to perform the study.

#### **RESPONSE:**

a) and b)

CAC (MPI) 1-112 Reference: Volume III 2013 Annual

Report AI.6 Part 1B

page 28 and 37

Preamble: The Corporation reported an operating net loss of \$44.8 million. "The total fair value of the Corporation's investments portfolio was \$2.4 billion at February 28, 2014, an increase of 5.3 per cent or \$123.7 million from the previous year."

Please elaborate and contrast the growth in the investment portfolio to the net operating loss.

#### **RESPONSE:**

The growth in investments is consistent with the statement of cash flows on page 37. The net loss is caused in large part by an increase in unpaid claims of approximately \$150.0 million. Total assets increased while total liabilities increased more resulting in a net loss for the year.

CAC (MPI) 1-113 Reference: Volume II Pro Formas page 11

Preamble: MPI is projecting, for 2015/16, higher CDN equities gain due to higher forecasted return assumptions of \$5,035,000.

Please elaborate on the change to higher return assumptions. Please provide the source supporting the higher return assumptions.

#### **RESPONSE:**

Please see Volume II Investment Income, section II.5.3 pages 34 and 35.

CAC (MPI) 1-114 Reference: Volume II Investment
Income II.1.1

Preamble: "There is a significant forecasting risk if the interest rate forecast does not materialize: the proposed premium rate increase would be deficient by approximately 2%."

- a) Please elaborate on the risk and quantify the percentage by which the premium rate would be deficient if the claims incurred forecast does not materialize, if any.
- b) Please elaborate on the risk and quantify the percentage by which the premium rate would be deficient if the revenue forecast does not materialize, if any.

#### **RESPONSE:**

(a) and (b)

The claims forecast (prior to the impact of interest rate changes) and the revenue forecasts are made on a best estimate basis and are well supported by the information provided in the Claims Incurred and Revenue sections of the Rate Application. The forecasts underlying the overall claims and revenue forecasts all have a degree of variability around the best estimate assumptions. However, "best estimate" forecasts imply that the expected value of any deviations from budget will be very close to zero (i.e., roughly an equal chance that the actual results will be below or above budget depending on the skewness of the distribution of outcomes).

In regards to interest rates, the chart on page 12 of Volume II Investment Income, section II.1.1, shows that the interest rate forecasts made by the major banks have underperformed significantly in recent years. Based on this historical experience and given the significant risk that interest rates have on the Basic financial results, the Corporation believes that it is reasonable to question whether these forecast are truly "best estimates". Unlike the (undiscounted) claims and revenue forecasts, which are based heavily on recent historical experience, the Corporation is projecting changes to interest rates that are (i) significantly different than the current interest

rates and (ii) not at all supported by the recent historical data. The context around the quoted statement is that if interest rates simply stay the same, then the Corporation would require an additional 2.0% rate increase.

CAC (MPI) 1-115 Reference: Volume II Investment
Income II.5 page 33

Preamble: "The Canadian equity portfolio is managed by three active managers and one passive manager under contract with the Department of Finance."

Please file a copy of each equity manager's Mandate.

#### **RESPONSE:**

CAC (MPI) 1-116 Reference: Investment Performance Report

Please file a copy of the February 28, 2014 and May 31, 2014 investment performance reports provided to the Investment Committee of the Board of Directors.

#### **RESPONSE:**

Please refer to PUB (MPI) 1-19

CAC (MPI) 1-117 Reference: Investment Income II.9.5 page 53

Please file a copy of the most recent investment income allocation formulas.

## **RESPONSE:**

Please see PUB(MPI) 1-17(a).

CAC (MPI) 1-118 Reference: Value to Manitobans – SM.1, Page 38

Please list the properties that the Corporation owns or rents for its own use.

## **RESPONSE:**

# CAC (MPI) 1-119

Reference: Volume II, Investment Income, Page 75 Portfolio Asset
Classes, Page 21 Cash and Short Term

Preamble: Page 75 indicates a range of 0% to 3% with a 1% target for the Cash and Short Term asset class. Page 21 indicates that the portfolio allocation will increase from 1% to the maximum 3% by 2018/19, well above the 1% target.

- a) Since higher rates of return are forecast to be available in other asset classes, why are you modeling an increased allocation above the target rate?
- b) Please describe and quantify the benefit to consumers of this allocation as opposed to a target allocation of 1%

#### **RESPONSE:**

- a) It is unrealistic to assume a constant 1% flat value for cash over the five year forecast. The model is dynamic and can handle rebalancing based on the minimum and maximums for each asset class. For this rebalancing to occur, each asset class, including cash, cannot be artificially kept at target weight in the model. As long as cash remains within the Investment Policy Statement tolerance range (Section 7.1 of the Attachment A)), then cash levels within the defined tolerance range is acceptable.
- b) Cash remains at 1% over the rating years (2015/16 and 2016/17). Cash reaches 3% in the final two years of the forecast, but these two years are not used to set rates for consumers.

Reference: Volume II, Investment Income, Page 75 Portfolio Asset
Classes, Page 22 Marketable Bonds

Preamble: Page 75 indicates three separate bond asset classes or mandates, Marketable Universe Bonds, Marketable Long Term Bonds, and Real Return Bonds, each with separate minimum maximum and target allocations. In aggregate these three separate bond asset classes or mandates range from a minimum of 30% to a maximum of 58% with a 39% target. That target of 39% for those three asset classes also appears subject to an overall total of 80% when Cash and Short term instruments and Non-Marketable Bonds are included, as the aggregate maximum of those 5 asset classes would add to 86%. Table 3.1 on Page 22 indicates that the portfolio allocation for Marketable Bonds will fall from 38.7% as at 2013/14 year end to 37.5% in 2014/15, well above the 30% target, and 32.3% in 2015/16.

- a) In light of the concerns expressed throughout the application relating to interest rate risks, and significant realized and unrealized gains and losses in the period 2014/15 to 2017/18, and the apparent liquidity indicated by the turnover rates indicated on page 24, please indicate why the marketable bond portfolio duration risk is not being more rapidly reduced.
- b) Please describe and quantify the benefit (or costs) to consumers of the forecast allocations as opposed to a target allocation.
- c) Please describe and quantify the benefit (or costs) to consumers of the forecast allocations as opposed to a minimum allocation.
- d) Please provide a table in form similar to Table 3.1 for each of the three separate bond asset classes or mandates, Marketable Universe Bonds, Marketable Long Term Bonds, and Real Return Bonds.

#### **RESPONSE:**

- a) The marketable bond duration is dependent on the claims duration. As per section 8.4 of the Investment Policy Statement, the total fixed income duration is required to be within +/- 1 year from the claims duration.
- b) It is unrealistic to assume a constant target weight for each asset class. Real estate's target allocation is 13%, and the allocation to the asset allocation was 10.1% as of February 28, 2014. To assume that real estate would be 13% or Canadian equities would be 15% for the entire five year forecast is clearly unrealistic.

The model is dynamic and can handle rebalancing and alternative asset class funding. For this rebalancing and alternative asset class funding to occur in the model, each asset class cannot be artificially kept at target weight in the model. As long as the various asset classes remain within the Investment Policy Statement tolerance range (Section 7.1 of the Attachment A), and are rebalanced accordingly in the model, then dynamic values for the asset classes represents a more realistic modeling of the asset values for each asset class.

- c) This question is unrealistic. If all asset classes were held at the minimum allocation, the total portfolio percentage value would be 68% (45% fixed income, 15% equities, 8% alternatives as per Section 7.1 of the Investment Policy Statement). Even if the equities and alternative asset classes were at their maximum weights the total allocation would be only 93.5%.
- d) Marketable bonds are forecast as one asset class in the model and are not forecasted as three separate mandates as described in the question.

Reference: Volume II, Investment Income, Attachment A PDF Page 5,

Investment Income Page 24 line8 and Table 3.3.1.2,

**Marketable Bonds** 

Preamble: Attachment A PDF Page 5 appears to indicate that the fixed income assets should "be passively managed in a 'buy and hold' strategy". Table 3.3.1.2 appears to indicate the marketable bond turnover of up to 101% over the last seven years.

- a) Please explain the apparent contradiction of "buy and hold" and annual rates above in recent years
- b) Please identify the last year the turnover rate was below 20% and provide annual data for each of the intervening years.

- a) The Corporation's Investment Policy Statement states: "When it is advantageous, the Department may trade bonds to take advantage of various bonds that appear undervalued and to take advantage of the changing shape of the yield curve." Therefore, the fixed income manager is permitted to buy and sell bonds in order to add value relative to the benchmark. The Corporation's fixed income portfolio has consistently outperformed its benchmark, adding 27 basis points annualized from December, 1997 to February, 2014, which places the portfolio at the 36<sup>th</sup> percentile, meaning that it outperformed 64% of the fixed income portfolios in API's (Asset Performance Inc.) universe of institutional investors.
- b) As indicated in Table 3.3.1.2, the turnover rate has not been below 20% in the last seven years.

Reference: Volume II, Investment Income, Page 22 Table 3.1, Page 26
Table 3.3.1.4, Marketable Bonds

Preamble: Table 3.1 appears to indicate that the spread of marketable bonds will decrease from 61 basis points in 2014/15 to 48 basis points in 2018/19. Table 3.3.1.4 appears to indicate the marketable bond duration and spread are related, and implies that the duration will fall from over 9 years to under 8 years during the periods indicated.

Please compare each of the Marketable bonds duration, and, the duration of the debt portfolio by individual asset class to the forecast liability or overall claims duration.

#### **RESPONSE:**

#### **Fixed Income and Claims Duration Forecast**

Date	Cash	MUSH	Marketable	Total	Claims	Duration Gap
	Duration	Bond	Bond	Fixed	Duration	
		Duration	Duration	Income		
				Duration		
				(as per		
				IPS)		
Feb-15	0.1	6.7	9.3	8.1	9.0	(0.9)
Feb-16	0.1	6.7	8.6	7.6	8.7	(1.1)
Feb-17	0.1	6.7	8.2	7.4	8.5	(1.1)
Feb-18	0.1	6.7	7.8	6.9	8.2	(1.2)
Feb-19	0.1	6.7	7.8	7.0	8.1	(1.1)

Reference: Volume II, Investment Income, Page 22 Table 3.1, PDF Page 5 Attachment A

Preamble: Table 3.1 appears to indicate that the spread of marketable bonds will decrease from 61 basis points in 2014/15 to 48 basis points in 2018/19. PDF Page 5 Attachment A appears to indicate that the fixed income portfolio is to be diversified amongst federal, Manitoba, other provincial, municipal and corporate issues and amongst a variety of maturities.

Please quantify the extent to which the decline in the spread forecast is due to changes

- a) in the allocation of purchases to higher quality government credits relative to relative to corporate issues.
- b) In the maturities forecast to be purchased, or
- c) Other assumptions

#### **RESPONSE:**

a) The decline in the marketable bond spread over the five year forecast is solely based on the declining marketable bond duration forecast. As per Table 3.3.2.1, the claims duration decreases over the forecast period from a rising interest rate forecast, causing the marketable bond duration to decrease as well. As per Table 3.3.1.4, the lower the marketable bond duration, the lower the marketable bond spread.

The marketable bond spread is calculated by separating the spread of provincial AA bonds over the GoC 10 year bond rate as of February 28, 2014 at various levels of duration (i.e. seven years, ten years, etc.) and applying this spread to

the forecasted GoC 10 year bond rate. No corporate issues were used in the analysis.

There is a direct relationship between the duration of a bond and the maturity of a bond. All else being equal, the longer the term of a bond, the higher the duration of the bond. As of February 28, 2014, the yield curve was upward sloping. Therefore, bonds with a longer maturity/duration had a higher spread over the Government of Canada 10 year bond than bonds with a lower maturity/duration.

- b) Please see the response in a).
- c) Please see the response in a).

# CAC (MPI) 1-124 Reference: Volume II, Investment Income, Page 28 Section II.3.3.2.2, Convexity

Preamble: Section II.3.3.2.2, mentions the topic of Convexity and provides a February 2014 value, but does not provide any historical values to allow readers to appreciate the trend in Convexity for 2010 through 2013. Section II.3.3.2.2 does not discuss how and in what manner the Convexity calculation assists the Board in understanding the interest rate and matching risks faced by MPI.

- a) Please provide the comparable data points for February 2010 through 2013.
- b) Please explain why this measure for this single date should be forecast as constant and its importance in the discussion of investment income.

#### **RESPONSE:**

a) The table below shows the comparable data points from February 2010 to February 2013.

Convexity	(	*	)	
Convexity	(	*	)	

1.34
1.52
1.57
1.70

(\*) Valuation as of July 2014

b) As part of the financial model testing, the sensitivity of investment income to changes in convexity was assessed (Volume III AI.11 - Financial Model Test Report, section 2.2.3). As that section shows, significant changes in convexity (i.e. 0.5) do not have a major impact on investment income. For that reason, the simplifying assumption of a constant convexity for the forecasted period was applied.

Reference: Volume II, Investment Income, Page 6 Table of Ending
Values and Allocations, PDF Page 5 Attachment A

Preamble: The Table of Ending Values and Allocations appears to indicate that the size of the allocation to Canadian Fixed Income decreased from nearly \$1.3 billion to s forecast of \$792 million 2015/16. MUSH, another class of Fixed income assets will increase from \$461 million to \$657 million. PDF Page 5 Attachment A appears to indicate that the Corporation expects to book approximately \$5 million in gains or losses from fixed income assets.

- a) Please provide the annual gains or losses from the fixed income assets to which this guideline refers for the actual and forecast periods in the Table of Ending Values and Allocations.
- b) Please discuss the relevance of the \$5 million level relative to fixed income assets of over \$1 billion, and the substantial changes in the value of fixed income portfolio over the 2009/10 to forecast 2018/19 period.

- a) The actual and forecasted annual gains or losses from the fixed income assets can be found in Volume II Investment Income, page 5, lines 10 and 11.
- b) Gains and losses on the fixed income assets are volatile and difficult to accurately predict as they depend on many factors, including changes in interest rates (both quantum and direction) and the degree of turnover within the bond portfolio. Therefore, in the past the Corporation previously assumed \$5 million of realized gains, however, this practice is not currently used. The financial model is now used to predict the amount of gains that will be generated based on the factors mentioned above.

Reference: Volume II, Investment Income, Page 6 Table of Ending
Values and Allocations, PDF Page 19 Attachment A

Preamble: The Table of Ending Values and Allocations appears to indicate that the ending rebalanced allocations, but aggregates sub categories of Canadian Equities and US equities. Paragraphs 7.3 and 7.4 of PDF Page 19 Attachment A appear to grant certain discretionary authority to allocate assets into sub mandates.

- a) Please enhance the Table of Ending Values and Allocations by providing the split of the various equity categories into their component parts.
- b) Does paragraph 7.3 place a maximum cap on Canadian Small Cap of 3%?
- c) If paragraph 7.3 places a maximum cap on Canadian Small Cap of 3%, is this maximum subject to the same leisurely rebalancing as other asset classes?
- d) Were the Working Group to have allocated 3% of the total fund to Canadian Small Cap mandate, and as a result of adverse market conditions, the Canadian Small Cap allocation exceeded 20% of total allocation to Canadian Equities, would a rebalancing be required?
- e) Please discuss why the allocation discretion is 20% in Canadian equities and 30% in the US equity asset classes.

#### **RESPONSE:**

a) The following table shows the component parts for Canadian and U.S. equities for fiscal years 2009/10 to 2013/14 in both dollars and percent. The forecast generated by the financial model (for fiscal years 2014/15 to 2018/19) does not separate Canadian and U.S. equities into the component parts.

Fiscal Year	2009/10	2009/10 2010/11		2012/13	2013/14	
Canadian Equities	315	397	369	401	381	
Large	280	354	324	324	265	
Core	-	-	-	23	58	
Small	35	43	45	54	59	
US Equities	72	130	133	163	138	
Large	53	103	107	131	110	
MID	10	-	-	-	-	
Small	10	27	26	32	28	

#### Ending Allocations (%)

Fiscal Year	2009/10	2010/11	2011/12	2012/13	2013/14			
Canadian Equities %	100%	100%	100%	100%	100%			
Large	89%	89%	88%	81%	69%			
Core	0%	0%	0%	6%	15%			
Small	11%	11%	12%	14%	15%			
US Equities %	100%	100%	100%	100%	100%			
Large	73%	80%	80%	80%	80%			
MID	13%	0%	0%	0%	0%			
Small	13%	20%	20%	20%	20%			

- b) Section 7.3 states that the Working Group, at its discretion, can allocate up to 20.0% from the Canadian Large Cap equity asset class to the Canadian Small to Mid Cap equity asset class, not to exceed 3.0% of the total fund's allocation.
- c) The Canadian small cap exposure is monitored on a regular, ongoing basis. As section 7.5 of the Investment Policy Statement states, the Working Group will monitor the target asset allocation of the fund on a quarterly basis, at a minimum, and rebalance if necessary in accordance with the Working Group's rebalancing policy. The Working Group's rebalancing policy states that:

Whenever an asset class is outside of its target range, it will be reported to the Investment Committee during the Investment Activity and Performance Report. If the weight of any asset class falls outside the allowable range, then that asset class will be rebalanced back into the target range for that asset class within six (6) months.

d) Yes. Please see section 7.5 of the Investment Policy Statement and the rebalancing policy in Section 16 of the Investment Income Document (page 75).

e) The Canadian equity small-mid cap allocation of 20% is lower than the U.S. allocation of 30% because the liquidity of the Canadian small cap market is significantly lower than the U.S. small cap market. The Canadian equity portfolio represents a significantly larger weight than the U.S. equity allocation (15% target vs. 5% target). Small-mid cap limit of 20% of the Canadian equity fund translates to 3% of the total Investment Fund; if the exposure was increased to 30% then small-mid cap would represent 4.5% of the total Investment Fund. In contrast, U.S. small-mid cap exposure of 30% of the U.S. equity fund translates to only 1.5% of the total Investment Fund.

CAC (MPI) 1-127 Reference: Volume II, Investment

**Income, PDF Page 20** 

**Attachment A** 

Preamble: Paragraph 8.4 of PDF Page 20 Attachment A appears to grant certain discretionary authority to remove fixed income assets from the duration calculation.

- a) Has the Working Group exercised that authority at any time, and if so, please discuss the reason for the decision?
- b) Are any of the duration calculations actual or forecast in this application based on the exercise of that authority, and if so, please provide the unaffected calculation?

# **RESPONSE:**

a) and b)

CAC (MPI) 1-128 Reference: Volume II, Investment

**Income, Page 27 Duration,** 

lines 7, 12 and 15

Preamble: Line 12 indicates that the overall claims duration is recalculated at each "fiscal year end". The model adjusts the duration of the marketable bond portfolio on a "quarterly basis".

In real life, are the various debt managers required individually or in aggregate, or with the assistance of finance to adjust the duration of the marketable bond portfolio on a "quarterly basis"? If not when is the portfolio compared to the "bandwidth"?

#### **RESPONSE:**

The Corporation's Investment Department calculates the duration of the total fixed income portfolio at every month-end and compares this to the most recent duration of the liabilities. This information is provided to the fixed income manager on a monthly basis. In addition, the fixed income manager can use Bloomberg to calculate the duration of the marketable bond portfolio at any time.

Reference: Volume II, Investment Income, Page 29 Table 4.1, MUSH,

Page 55 MUSH, Page 75 Portfolio Asset Classes, PDF Page 14

Attachment F

Preamble: Page 75 indicates a range of 15% to 25% with a 20% target for the MUSH asset class. Page 55 indicates that the "minimum and maximum allocation is considered when new MUSH bonds are to be purchased. Table 4.1 indicates that in forecast 2014/15 and 2015/16 MUSH will represent more than 25% of the portfolio. PDF Page 14 Attachment A indicates that the annual commitment to MUSH will be determined "the Department".

- a) Why are we modeling a level of MUSH purchases in excess of the Investment Policy maximum allocation to this asset class?
- b) Was there a problem in forecasting purchases of approximately \$7 million fewer purchases of MUSH, such that the MUSH proportion would not exceed 25%?
- c) Is it the intention of "the Department" to cause MPI to invest in MUSH bonds in excess of the Investment Policy maximum allocation to this asset class?
- d) Please describe and quantify the benefit (or costs) to consumers of the forecast asset allocation being greater than the maximum.
- e) Please provide and enhanced table 4.1 which contains the forecast duration of MUSH in each of the years 2014/15 through 2018/19

#### **RESPONSE:**

a) The maximum weight for MUSH bonds in the portfolio is 25%. If the beginning value for MUSH in a quarter is greater than 25.0%, then new MUSH purchases

for that quarter are decreased such that the MUSH portfolio remains within the 25% maximum. See section 4.4 for reference to this mechanism in the model.

The MUSH new purchase adjustment is based on the beginning values in the quarter. When interest rates increase and are applied to the marketable bond portfolio during the quarter, the marketable bond values fall, increasing relative size of the MUSH portfolio at the end of the quarter (known as the denominator effect). Changes in market values for other asset classes during the quarter can also generate a MUSH proportion that exceeds the 25% upper limit at the end of the quarter. As shown in the table below, the MUSH allocation does not stay above the 25% past Q4 2015/16.

	MUSH Allocation
Q1 2014/15	24.2%
Q2 2014/15	24.6%
Q3 2014/15	25.0%
Q4 2014/15	25.3%
Q1 2015/16	25.4%
Q2 2015/16	25.3%
Q3 2015/16	25.1%
Q4 2015/16	25.1%
Q1 2016/17	24.9%
Q2 2016/17	24.9%
Q3 2016/17	24.9%
Q4 2016/17	24.8%
Q1 2017/18	24.8%
Q2 2017/18	24.7%
Q3 2017/18	24.5%
Q4 2017/18	24.3%
Q1 2018/19	24.0%
Q2 2018/19	23.8%
Q3 2018/19	23.5%
Q4 2018/19	23.2%

b) There was no "problem". Please see the response in a).

- c) Please see CAC (MPI) 1-2 a) and b).
- d) As per the table in response a), MUSH bonds were outside the limit for one quarter in 2014/15 and four quarters in 2015/16. The benefits to consumers of the forecast asset allocation being greater than the maximum is estimated to be an increase in investment income of \$23 thousand for 2014/15 and \$70 thousand for 2015/16.

e)

**Table 4.1 MUSH** 

	2014/15	2015/16	2016/17	2017/18	2018/19
		Foreca	ast (End of	Period)	
MUSH Book Value	606,826	613,548	632,779	647,150	657,311
Total Investment Income	30,293	31,079	31,667	32,999	34,352
New MUSH Purchase Rate*	10.3%	7.3%	9.8%	9.5%	9.3%
End of Period MUSH Yield	5.22%	5.20%	5.23%	5.32%	5.43%
MUSH Duration (years)	6.7	6.7	6.7	6.7	6.7
% of Portfolio	25.3%	25.1%	24.8%	24.3%	23.2%

<sup>\*</sup>total annual MUSH purchases / total value of MUSH bond portfolio

CAC (MPI) 1-130 Reference: Volume II, Investment

**Income, PDF Page 14** 

**Attachment A** 

Preamble: PDF Page 14 Attachment A indicates that the threshold for investment in MUSH is that there be "no degradation in yield or grade" in comparison to a 10 year Canada bond. As Canada bonds frequently have a higher rating or grade than other issuers, and trade at lower rates than provincial bonds of similar term to maturity, we are unclear how the prevention of degradation is achieved, particularly in light of the underperformance of this asset category compared to the benchmark chosen by MPI.

- a) Does "no degradation in yield or grade" mean MUSH bonds must only meet the 10 year Canada rate?
- b) Does "no degradation in yield or grade" mean MUSH bonds must only meet the Manitoba 10 year rate at the time of purchase by MPI, or are there other enhancements provided, and if so please quantify.

- a) The minimum acceptable yield for a MUSH bond is the yield on a 10 year Government of Canada bond. However, in practice the bonds provide a positive spread to Province of Manitoba bonds of a similar term.
- b) When issued, MUSH bonds provide a yield that exceeds the yield on both the Government of Canada 10 year bond and also the Province of Manitoba 10 year bond. The actual yield spread relative to the Government of Canada 10 year bond averaged 192 basis points over the 5 years ended at February 28, 2014, as indicated in Volume II, Investment Income, pages 30 & 31.

CAC (MPI) 1-131 Reference: Volume II, Investment

**Income, PDF Page 12** 

Attachment A

Preamble: PDF Page 12 Attachment A indicates that the benchmark for MUSH is the DEX Provincial Total Return Bond Index. We are unclear how the characteristics of the benchmark match the characteristics of the MUSH portfolio.

Please compare or contrast the characteristics of the MUSH portfolio to the characteristics of the DEX Provincial Total Return Bond Index?

#### **RESPONSE:**

# CAC (MPI) 1-132 Reference: Volume II, Investment Income, PDF Page 16 Attachment A

Preamble: PDF Page 16 Attachment A indicates that Fund may purchase derivatives and enter into forward transactions, futures or "swaps" consistent with risk management. Interest rate swaps can alter the duration of a bond portfolio. The Board will be aware from previous Manitoba Hydro hearing that MH has entered into interest rate swap transactions.

- a) Has the Fund ever entered into an interest rate swap forward or future transaction, and if so please provide the details of the transaction and the purpose for which it was entered into?
- b) Has the management or the Working Group considered a derivative or swap transaction as a method to reduce the interest rate risk or duration variance identified in this application, and if so, please provide details of the transaction considered?
- c) Has the management or the Working Group considered a derivative or swap transaction as a method to reduce the interest rate risk or duration variance identified in this application, and if not, in what if any circumstances would considering such a transaction, clearly considered reasonable in section 6.12 of Attachment A, be appropriate?

#### **RESPONSE:**

a) to c)

CAC (MPI) 1-133 Reference: Volume II, Investment

**Income, PDF Page 19** 

**Attachment A** 

Preamble: PDF Page 19 Attachment A, in section 7.2 removes a sentence which indicates the date of the last allocation review without providing a new date.

- a) What was the date of the last allocation review?
- b) When is the next allocation review contemplated?
- c) If there is no specific date for review of asset allocation, has a threshold been identified to trigger such a review?

## **RESPONSE:**

a) to c)

Reference: Volume II, Investment Income, Page 29 lines 18 and 19, MUSH, Attachment F

Preamble: Lines 18 and 19, indicate that the MUSH bonds provide additional yield over a 10 year Canada bond, but do not provide any information as to the term, amortization, or other features of the MUSH bonds. Attachment F indicates that the Non-marketable bonds underperformed the benchmark in several years, including 2012 and 2010.

- a) For the 3 most recent MUSH bonds purchased for MPI please provide term sheets setting out the maturity, coupon, repayment terms and average life, and the spread to the relevant or most comparable Canada bond at date of purchase.
- b) Please extend the annual performance information in Attachment F back in time to allow the calculation of the compound annual return in MUSH and its benchmark for a period of 10 years.
- c) Please discuss the factors which lead to the 7.7% underperformance in 2012 and the 2.5% underperformance in 2010.

#### RESPONSE:

a) to c)

CAC (MPI) 1-135 Reference: Volume II, Investment

**Income, Page 75 Portfolio** 

**Asset Classes** 

Preamble: Page 75 indicates that real Return Bonds are a permitted asset class, but there is no discussion as to the Real Return bonds in the preceding pages.

- a) Please provide details of the percentage of the portfolio that is currently made up of Real Return Bonds or is anticipated to be included in the portfolio in the period 2014/15 through 2018/19.
- b) To the extent that there are no Real Return Bonds, in the portfolio, why has it not been opportune to purchase those bonds?
- c) Please discuss the market conditions in which it is anticipated that it may be opportune to acquire assets in that asset class.
- d) In anticipation of the acquisition of Real Return bonds, please provide a discussion as to the anticipated yields, the spreads related to Canada bonds of similar maturities, the accounting treatment with respect to interest paid and accretion of value., turnover, and, a discussion of how assets of that class will impact the calculation of duration of the fixed income or bond portfolio.

- a) The portfolio currently does not hold any real return bonds. The future allocation to all asset classes, including real return bonds, will be determined by the upcoming asset liability management study.
- b) c) and d)
  Please refer to CAC (MPI) 1-2 a) and b).

Reference: Volume II, Investment Income, PDF Page 5 Attachment A,
Page 3 Attachment E

Preamble: PDF Page 5 in Attachment A indicates that the Corporation may request the external equity investment managers to realize capital gains. Page 3 in Attachment E appears to indicate that as at February 28, 2014, the aggregate unrealized gain in the Canadian portfolio was over \$76 million on an asset value of \$380 million. The table on page 5 of the Investment Income section shows a forecast drop in realized Canadian Equity gains from \$58 million in 2014 to \$16 million in 2015.

Has the Corporation ever requested [other than as part of a rebalancing] the realization of equity capital gains of its asset managers, and if so, please describe the circumstances?

#### **RESPONSE:**

CAC (MPI) 1-137 Reference: Volume II, Investment

Income, Pages 33-38
Canadian Equities

Preamble: Information about 4 Canadian Equities mandates is supplied, including some information related to accounting treatment, expectations for market return assumptions, realization of gains, dividend yield, and sales or turnover. There appears to be no modeling of any value being added by any of the managers in the future. In each case the assumed future turnover rate range of each active Manager appears to lower than one might expect based on the data presented

- a) Please provide the weighted average total turnover, for each to the years 2006-2013 for the three active managers only.
- b) For each of 4 managers, please provide the date at which that mandate was originally funded.
- As firms such as RBC Investor Services provide comparative performance statistics on fund managers, if MPI has employed such a service,
  - (i) Please provide a table showing the active managers percentile ranking compared to other Canadian equity managers in that mandate category [e.g. Canadian equity, Canadian small cap, real estate, infrastructure] for each of the years 2006-2013.
  - (ii) If the benchmarks are other than those set out in section 5.5 of Investment Objectives in Attachment A, please enhance the table in Attachment F by identifying the benchmark used for each mandate category [e.g. Non-Marketable Bonds, Canadian equity, Canadian small cap, real estate, infrastructure],
  - (iii) Please segment Canadian Equities data in the Table in Attachment F by manager, for each of the years.

- (iv) Please clarify how, if at all, the SSGA MA S&P/TSX Index fund identified in Attachment E, is reflected in the table in Attachment F.
- d) With respect to Manager A, as table 5.6.1 provides data showing an average turnover of approximately 23.75% for the years 2006-2013, please explain why its expected future turnover is the range of 15% to 20%?
- e) With respect to Manager B, as table 5.6.1 provides data showing an average turnover of approximately 23.63% for the years 2006-2013, please explain why its expected future turnover is the range of 15% to 25%?
- f) The 2013 turnover rate for Manager B is materially higher than the other data points. Please discuss the reason for this value, perhaps a change in investment philosophy, change of staff, or change of manager?
- g) With respect to Manager C, as table 5.6.1 provides data showing an average turnover of approximately 39.25% for the years, 2006-2013, please explain why its expected future turnover is the range of 25% to 35%?

#### **RESPONSE:**

a) The table below contains the weighted average total turnover for the last five years for the three active managers only.

**Historical Weighted Average Canadian Equity Portfolio Turnover** 

Manager	2009	2010	2011	2012	2013
Manager A	19%	29%	4%	6%	42%
Manager B	9%	13%	13%	22%	72%
Manager C	36%	24%	35%	25%	25%
Weighted Average Total Turnover	18%	22%	13%	15%	49%

c)

- i. Please refer to CAC (MPI) 1-2 a) and b).
- ii. Please refer to CAC (MPI) 1-2 a) and b).
- iii. Please refer to CAC (MPI) 1-2 a) and b).
- iv. The SSGA MA S&P/TSX Index fund identified in Attachment E is reflected in the table in Attachment F within Canadian Large Capitalization Equities.
- d) As per line 15 on page 38, the forecasted equity turnover ratio is based on the five year average. Each manager was requested to provide their expected turnover for their fund going forward, and this information is provided for additional context.
- e) Please see the response in d).
- f) Please see CAC (MPI) 1-2 a) and b).
- g) Please see the response in d).

CAC (MPI) 1-138 Reference: Volume II, Investment

Income, Pages 33-38
Canadian Equities

Preamble: Information about 4 Canadian Equities mandates is supplied, including some information related to accounting treatment, expectations for market return assumptions, realization of gains, dividend yield, and sales or turnover.

Table 5.6.1 indicates zero turnovers for the S&P Index investment Mandate for the period 2006-2013. This has the effect of reducing the overall turnover average and therefore reducing the current forecast year net income from equities.

Press releases from S&P Dow Jones Indices

http://ca.spindices.com/indices/equity/sp-tsx-composite-index show frequent changes in the index portfolio. For example on June 13, 2014, AutoCanada, Canaccord, Canyon Services, Painted Pony, Parex, Primero, RMP, TORC, were added and Silvercop was removed from the Composite Index. A similar announcement with 6 additions and 2 deletions to the Composite was made March 14, 2014. Various reorganizations also trigger adjustments to the Index as may be seen with the March 25, 2014 Shoppers Drug Mart and June 9, 2014 Osisko Mining, and similar releases. Substantial new issues may trigger weighting adjustments to the Index as may be seen with the November 14, 2013 release related to Barrick Gold.

- a) Under what circumstances is it correct to view the Index mandate as having zero turnover?
- b) If it is correct to view this mandate as having zero turnover, why is it appropriate to include it in the calculation of the average turnover of the equity portfolio?
- c) Please indicate whether any of the companies listed in the preamble are or have been in the portfolios since 2012. If yes, please specify each company and the year(s) they were in the portfolios.

- a) The turnover ratio is used to calculate realized gains/losses in the equity portfolios. For forecasting purposes, the index mandate has a zero turnover.
- b) As mentioned in response a), the turnover ratio is used in the model to calculate realized gains in the equity portfolio. If 15% or 50% or 75% of the portfolio had 0% turnover, then this number should be included in the weighted average turnover calculation for the entire Canadian equity portfolio.
- c) The index portfolio is effectively a full replication portfolio. Therefore, whenever a stock is added or deleted from the index, the index portfolio adds or deletes the stock from the portfolio.

Reference: Volume II, Investment Income, PDF Pages 12 and 24
Attachment A, and, Attachment F

Preamble: PDF Page 12 in Attachment A, provides an annual expected return that differs from the benchmark found on page 24 of Attachment A for Canadian equities, and, Attachment F, provides an annual expected return benchmark in percentage terms.

If the annual expected return benchmark in Attachment F, is not the benchmark as the term is used on page 24 of Attachment A, please explain the adjustment to the value, and provide the raw benchmarks for Canadian equities for the periods indicated in Attachment F.

#### **RESPONSE:**

The annual expected return for active Canadian equity managers is the annualized return of the respective benchmarks over a rolling four year period plus the alpha target of 150 basis points. For the large cap mandate, the benchmark is the S&P/TSX Capped Composite Total Return Index and for the small/mid cap mandate the benchmark is the BMO Small Cap (Un-weighted) Blended Index. The alpha target is the value added that active equity managers are expected to provide over and above the return of the benchmark.

The table below shows the benchmark's annual performance for periods 2010 to 2014.

	Annual Return Ending February						
	2014	2013	2012	2011	2010		
S&P/TSX Capped Composite Total							
Return Index	14.3%	4.6%	-8.1%	24.8%	47.6%		
BMO Small Cap (Un-weighted)							
Blended Index	13.1%	-12.1%	-10.0%	39.2%	102.4%		

Reference: Volume II, Investment Income, Page 39 Table 6.1, Page 41

Line 18 Turnover Ratio

Preamble: Table 6.1 on page 39 indicates a \$17 million realization in 2018/19. Line 18 on page 41 indicates that there are "no sales of U. S. equities projected over the five year forecast period".

- a) Please reconcile the \$17 million realization in 2018/19, with Line 18 on page 41.
- b) As the EFT managers may be required to rebalance their portfolios as the index changes, and distribute a portion of income other than dividends to unit holders, please discuss how MPI will account for income other than dividends realized from a US EFT.

- a) The U.S. equity portfolio was rebalanced in 2018/19 because the asset class was outside of the maximum limit of 7.0% for two quarters. This rebalancing caused \$17.6 million in unrealized gains to be realized in 2018/19.
- b) The U.S. listed ETF funds held in the portfolio have never distributed any capital gains. Based on conversations with the ETF manager, going forward it is not expected that there will be any distribution of capital gains in the future. These particular ETF funds are managed to minimize capital gains.

Reference: Volume II, Investment Income, Attachment A, PDF Page18,

Line 20 page 42 Accounting Treatment of Real Estate Pooled

Fund, Line 13 page 45, Accounting Treatment Cityplace

Preamble: Attachment A, PDF Page18, indicates that all real estate will be accounted for on a Fair Value Through Profit and Loss basis. Line 20 page 42 Accounting Treatment of Real Estate Pooled Fund appears to indicate that all unrealized losses and gains flow through the profit and loss statement. Line 13 page 45 Accounting Treatment Cityplace appears to indicate that changes in the market value are not reflected in the profit and loss statement

Please explain the apparently conflicting treatment in Attachment A, and pages 42 and 45.

#### **RESPONSE:**

The accounting class column in Attachment A refers to the accounting treatment of financial instruments. The unrealized and realized gains and losses of financial instruments that are classified as Fair Value Through Profit flow through the profit and loss statement (statement of operations). Cityplace is an investment property for accounting purposes, not a financial instrument and is recorded at amortized cost, although the fair value is disclosed in the financial statement notes. The accounting treatments noted are consistent with our audited financial statements.

Reference: Volume II, Investment Income, Page 43, Return Assumption,
Real Estate Pooled Fund.

Preamble: At line 17, page 43, the corporation indicates that recent returns for the real estate pooled fund have been in the 11.5% to 12.3% range. Chart 7.3 provides the Index return, which in recent years has been between 5% and 7%.

Please discuss the specific factors if any in the recent performance of the pooled fund, that would suggest that the average performance of this manager [say for the same 2009-13 period] should not be a better guide to future performance than the less attractive recent rates found in the benchmark index, to which the mangers results appear to have a low correlation.

#### **RESPONSE:**

Chart 7.3 provides the income return for the index, which does not include capital appreciation. The reference to the real estate pooled fund returns are total return, which include both capital appreciation and income. Therefore, the income return of the index and the last two years of total returns for the real estate pooled fund are not comparable.

Reference: Tab, Page 45, Return Assumption, Cityplace, Page 5 Summary of Investment Income

Preamble: While page 5 Summary of Investment Income provides information as to the Forecast Pooled fund in line 7A, it does not have a line 7B to reflect the \$3 million per year income from Cityplace.

- a) Does the information in line 7A of the Summary of Investment Income, include both the Cityplace and Pooled Fund results?
  - (i) and if not, please amend the table on Page 5, or
  - (ii) if it does, please provide a segmenting the Pooled Fund results
- b) In forecasting future rental income, was the current lease renewal schedule considered, or, are the preponderance of leases extending beyond the 2019 forecast period?

- a) The information in line 7A of the Summary of Investment Income includes the Pooled Fund results only. Information on Cityplace is shown on line 7B, which is located 7 rows above line 7A, between U.S. equities and infrastructure.
- b) The current lease schedule and rental rates were considered in estimating future rental revenues.

Reference: Tab , Page 55 to 57, Rebalancing, Page 75 Table providing

'Target' values for asset classes, Attachment A, Statement of

**Investment Beliefs.** 

Preamble: The discussion of rebalancing describes actions that will be modeled in certain circumstances when the value of certain asset classes cross certain thresholds. For example at page 56 line 16 and line 22, when certain classes of equities remain "outside the maximum or minimum" for "two consecutive quarters" they will be adjusted to "the target weight in the following quarter" and the proceeds will be placed in marketable bonds. In Attachment A, Statement of Investment Beliefs, the first point is that "Asset allocation is the most important factor in determining the performance of the Fund'.

- a) Is this modeling description of the Rebalancing policy, under which the portfolio allocation to the various asset classes will be adjusted, an accurate representation of the policy?
- b) What is the reason for requiring that any particular asset class need be outside the min-max range for half a year before action would be taken to rebalance within the min-max ranges?
- c) If asset allocation is the "most important factor" in performance, and asset classes have wide ranges, such as 5% to 13% for Long Term Bonds, how is it consistent to wait two quarters to rebalance?
- d) Were these rebalancing ranges developed as a result of an analysis of the relative performance of the asset classes and the extent to which the asset classes results are counterbalancing risk and optimizing return, and if so, may we see that analysis?
- e) Having regard to the forecast of returns of each of the asset classes, what is the rational of rebalancing from the point of excess or deficiency [say 18.5% or

11.5% for Canadian equities] to the midpoint of the range [15% for Canadian equities] rather than some other point within the range that represents a less substantial change in portfolio allocation, which would represent a change of allocation of over 3%, or about 20% of the 'Target' allocation, as indicated on page 75?

f) For the purposes of these rebalancing rules are GOC, or Provincial real return bonds, treated as "marketable bonds" as that term appears in line 2 on page 56, or if not, what is the rebalancing policy for real return bonds?

#### **RESPONSE:**

a) and b)

The investment model is calculated on a quarterly basis. As a result, the model requires rules for rebalancing asset classes that match the capabilities of the quarterly model. Therefore, the description of the rebalancing assumptions on page 55 is a reasonable representation of the Rebalancing Policy on page 75, within the constraints of a quarterly model.

- c) There is a simple tradeoff when deciding to rebalance a portfolio the cost of rebalancing compared to the cost of not rebalancing. Transaction costs can either partially or fully offset the benefits of rebalancing. For instance, if every asset class in the portfolio was rebalanced to target weight once a fiscal quarter, it would cause a significant cost drag to the investment portfolio.
- d) No, the analysis as described in the question was not performed.
- e) If the model rebalanced Canadian equities back to maximum weight instead of to target, then the Canadian equities would require a rebalance soon thereafter. The target weight was chosen to ensure that the model would not be required to rebalance the same asset class within a short period of time.

f) There is no allocation to real return bonds in the portfolio. Also, there are no real return bonds held in the portfolio.

## CAC (MPI) 1-145

Reference: Volume II, Investment Income, Page 56, Rebalancing, Page

75 Table providing "Target" values for asset classes, Page 76 noting that the "asset class will be rebalanced back" into the

target range for that asset class within six (6) months"."

Preamble: The discussion of rebalancing on page 56, describes actions that will be modeled in certain circumstances when the value of certain asset classes cross certain thresholds. For example at page 56 line 16 and line 22, when certain classes of equities remain "outside the maximum or minimum" for "two consecutive quarters" they "will be adjusted to the target weight in the following quarter" and the proceeds will be placed in marketable bonds.

- a) Does the rebalancing policy require rebalancing "to the target weight in the following quarter" as indicated on page 56, or "into the target range for that asset class within six (6) months", as indicated on page 76?
- b) Which of the two alternatives does the forecast model embrace?

### **RESPONSE:**

a) & b)

The investment model is calculated on a quarterly basis. As a result, the model requires rules for rebalancing asset classes that are matched to the capabilities of the quarterly model. The discussion of rebalancing on page 56 describes how the financial model will rebalance various asset classes for forecasting purposes.

The Investment Committee Working Group's Rebalancing Policy (page 75) is used for actual situations requiring rebalancing. The difference between rebalancing assumptions in the model and the Rebalancing Policy is explained on page 55, lines 3 to 5.

# CAC (MPI) 1-146

Reference: Volume II, Investment Income, Page 7 line 23-28, 'significant

forecasting risk' and 'benefits', and Duration Matching

**Discussion Paper** 

Preamble: MPI notes that a negative duration gap between fixed income and claims may give rises to "benefits from a rising interest rate forecast". In its discussion of "duration" MPI appears to use the duration of the entire fixed income holdings. To better understand the use of marching assets and liabilities to reduce risk, we have observed that the Saskatchewan Auto Fund appears to segment its portfolios into a "Matching Portfolio" and a "Return Seeking Portfolio". Within the Saskatchewan Auto Fund "Matching Portfolio" into 6 buckets of different ranges terms, e.g. "Over 1 to 3 years", and "Over 5 to 10 years", and "Over 15 years ...". See page 222/279 of the pdf found at <a href="http://www.saskratereview.ca/images/docs/sgi-2013/saf-minimum-filing-requirements-srrp-website.pdf">http://www.saskratereview.ca/images/docs/sgi-2013/saf-minimum-filing-requirements-srrp-website.pdf</a>

- a) Please confirm that the assumption underlying your duration calculation of "parallel shifts in the yield curve", is that each point on the interest rate curve [including, 3 months, 1 year, 3 years, 5 years, 10 years, 20 years, 30 years] is increased, or decreased, by an equal measure [say 1%]., or if unable to confirm provide the correct assumption.
- b) Please confirm that the changes in the interest rate curves rarely if ever move in a parallel shift.
- c) Please confirm that the changes in interest rates forecast in Tables 13.2.2 and 13.2.3 suggest that markets will move from a relatively steep T-bill to 10 year yield curve to a relatively flat T-bill to 10 year yield curve.
- d) Would we be correct in thinking that by segmenting its portfolios into "buckets" of a few years duration, all other things being equal, there is more reduce the financial risk of non-parallel changes in interest rates in one portion of the yield curve, or, if not why not?

- e) Saskatchewan indicates it will match "Buckets with terms over 1 year" to "within +/- 5% of the estimated liability cash flow for each bucket", does this represent a more precise matching range providing consumers with greater protection from interest rate risk than a +/- 1 year matching range or duration bandwidth, and if not why not?
- f) At line 27 of page 2 of the Duration Matching Discussion Paper, MPI indicates that the "duration bandwidth ... was increased from +/- 1.5 years to +/- 2 years which increased the Corporation's exposure to interest rate risk."
  - (i) Was it the change of policy alone that "increased the Corporation's exposure to interest rate risk", or did the Corporation have to act to use this larger range to increase the risk?
  - (ii) Please discuss the internal actions that lead to this policy change, including the administrative studies that indicated the benefits outweighed the cost, the process that lead to the recommendation to the decision maker or decision making body, and rational for the decision.
  - (iii) Please provide a table showing the claims duration and fixed income portfolio duration on a quarterly basis from November 2009 and the variance, to permit one to see the extent to which the newly permitted bandwidth expansion increased risk, and the amount of aggregate claims liability and amount of the fixed income portfolio.
  - (iv) Since in Attachment C, at page 18, the authors observe that "MPI duration mismatch must be within +/- 2 years" and that organizations "with shorter term liabilities had higher tolerance for mismatch", please discuss the underlying factors that resulted in the apparent reversal of the policy change increasing the bandwidth to +/- 2 to now +/- 1.
- g) Please confirm that it is possible that a \$500 million and a \$1 billion bond portfolio could each have the same duration, but neither would immunize or

match the risk of \$750 million liability portfolio owing to the size mismatch, or, if unable to confirm provide the correct statement.

- h) Since in Attachment C, at page 17, the authors observe that the "majority" appear to use buckets, does MPI use buckets, and if not, please provide the reasoning for holding this minority position?
- i) Please provide the duration for fixed income assets and claims liabilities for each of the following periods.
  - (i) Up to one year
  - (ii) Over 1 to 3 years
  - (iii) Over 3 to 5 years
  - (iv) Over 5 to 10 years
  - (v) Over 10 to 15 years
  - (vi) Over 15 years

#### **RESPONSE:**

- a) Confirmed. Parallel shifts in the yield curve occur when the yield of all maturities on the yield curve move by an equal amount.
- b) Confirmed. As defined in a), parallel shifts in the yield curve rarely occur in reality.
- c) Confirmed.

- d) This issue of segmenting the asset and liability portfolios into "buckets" will be studied and the benefits, if any, quantified during the upcoming ALM study. Until the results to the ALM study are received we cannot comment on this question.
- e) See the response to Part d) above.

f)

- (i) The Corporation was not compelled to use the larger range.
- (ii) This change to the duration bandwidth was made for several reasons. First, because the definition of the liabilities was changed from total liabilities to claims liabilities. Second, because the bond portfolio was in transition with the elimination of real return bonds and the addition of long bonds. Third, interest rates were forecasted to increase.
- (iii) The requested data is provided in the following table.

	Fixed			Fixed Income	Aggregate
	Income	Liability	Variance	Assets (\$	Claims
Date	Duration	Duration*	Duration **	Billion) ***	Liability
Nov-09	7.4	7.6	-0.2	1.77	1.66
Feb-10	7.2	9.0	-1.8	1.80	1.62
May-10	6.6	9.0	-2.4	1.82	1.56
Aug-10	6.7	9.4	-2.7	1.85	1.67
Nov-10	7.6	9.4	-1.8	1.54	1.66
Feb-11	7.6	9.4	-1.9	1.50	1.44
May-11	7.5	9.4	-1.9	1.39	1.43
Aug-11	7.4	9.1	-1.7	1.40	1.48
Nov-11	7.5	9.1	-1.6	1.41	1.51
Feb-12	8.3	9.1	-0.9	1.33	1.48
May-12	8.3	9.1	-0.8	1.34	1.48
Aug-12	6.9	8.9	-2.0	1.53	1.52
Nov-12	6.6	8.9	-2.3	1.53	1.54
Feb-13	7.4	8.9	-1.5	1.51	1.55
May-13	7.2	8.9	-1.7	1.48	1.59
Aug-13	8.1	8.9	-0.8	1.48	1.56
Nov-13	6.7	8.9	-2.2	1.61	1.59
Feb-14	7.3	9.4	-2.1	1.61	1.70
May-14	8.1	9.4	-1.3	1.65	1.69

- \* Prior to February 2010, liability duration was total liability duration
- \* After February 2010, liability duration was claim liability duration
- \*\* Variance Duration = Fixed Income Duration Liability Duration
- \*\*\* Fixed Income Assets utilized to calculate fixed income duration
  - I. Please see Attachment B Duration Matching Discussion Paper for a full discussion of the reasons why the duration bandwidth was changed from +/- 2.0 years to +/-1.0 year.
- g) Immunization requires that<sup>1</sup>:
  - 1. Average duration of assets and liabilities are equal at all times.

<sup>&</sup>lt;sup>1</sup> Source: The Handbook of Fixed Income Securities fourth Edition Edited by Frank J. Fabozzi and T.Dessa Fabozzi, Page 901



- 2. The market value of assets must be greater than or equal to the present value of liabilities.
- 3. The dispersion of assets be greater than or equal to the dispersion of liabilities.

In the above example only the \$1.0 billion bond portfolio can potentially immunize or match the risk of \$750 million liability portfolio. The \$500 million bond portfolio does not have sufficient funds to fund the liability and has a large current deficit (of \$250.0 million).

- h) The Corporation does not currently use time buckets to segment its liabilities or bond portfolio. However, the upcoming ALM study will address this issue and the consultant has been asked to quantify the benefits of adopting a cash flow matching strategy to manage interest rate risk.
- i) Please see CAC (MPI) 1-2 a) and b).

CAC (MPI) 1-147 Reference: Volume II, Investment

**Income, Attachment E** 

Preamble: Included in the list of Canadian Equities are 3 Canadian T bills with an aggregate value of \$3.9 million.

Are these amounts uninvested cash held by active equity managers, and if not, please explain?

### **RESPONSE:**

Please refer to CAC (MPI) 1-2 a) and b).

CAC (MPI) 1-148 Reference: Volume II, Investment

**Income, PDF Page 2** 

**Attachment A, Governance** 

Preamble: Page 2 Attachment A, Governance appears to indicate that the next review date is "April 2013" and thereafter, the policy is to be reviewed on an annual basis.

- a) Was the April 2013 review completed?
- b) What is the status of the April 2014 review?
- c) If the April 2014 review has been completed, please supply any policy revisions resulting there from.

## **RESPONSE:**

a) to c)

Please refer to CAC (MPI) 1-2 a) and b).

## CAC (MPI) 1-149

Reference: Volume 2, Investment Income, II.5.3, Total Return
Assumptions, pages 34 – 36.

In preparing its analysis, has Manitoba Public Insurance considered the analysis including equity risk premium found in any of the following reports or proceedings:

- Alberta Utilities Commission, 2011 Generic Cost of Capital decision 2011-474,
   December 8, 2011;
- Concentric Advisors Authorized Return on Equity for Canadian Gas and Electric Distributors and Select Comparators, Volume 1, October 1, 2013
- Concentric Advisors Authorized Return on Equity for Canadian Gas and Electric Distributors and Select Comparators, Volume II, May 8, 2014
- TESTIMONY ON COST OF CAPITAL FOR The Alberta Utilities Commission
   Prepared by KATHLEEN C. MCSHANE FOSTER ASSOCIATES, INC., January 2014;
- BEFORE THE ALBERTA UTILITIES COMMISSION IN THE MATTER OF: ALBERTA
  UTILITIES COMMISSION (AUC) 2014 GENERIC COST OF CAPITAL
  APPLICATION NO. 1608918 PROCEEDING ID 2191, EVIDENCE OF DR. SEAN
  CLEARY, CFA, BMO PROFESSOR OF FINANCE
- FAIR RETURN AND COMMON EQUITY RATIO FOR ATCO PIPE . EVIDENCE OF Laurence D. Booth BEFORE THE ALBERTA UTILITIES COMMISSION , January 2014

#### **RESPONSE:**

No. The Corporation has described in Volume II Investment Income (Section II.5) how it has forecasted equity returns based on PUB Order 157/12.



CAC (MPI) 1-150 Reference: Volume 2, Investment Income, II.5.3

Preamble: Total Return Assumptions, page 34. "Table 5.3.2 provides the percentile returns over 5, 10 and 20 year annualized periods."

Please provide the underlying data and calculations in support of Table 5.3.2.

### **RESPONSE:**

The underlying data and calculations in support of Table 5.3.2 are attached.

S&P/TSX Composite Total Annualized Rolling Returns from 1956 to Present (\*)

Percentile	5 Year Annualized	10 Year Annualized	20 Year Annualized
Min	-1.9%	2.8%	6.2%
1%	-0.5%	3.9%	6.6%
5%	1.2%	5.0%	7.3%
10%	2.2%	6.1%	8.2%
20%	5.1%	7.7%	8.8%
25%	5.7%	8.0%	9.1%
50%	8.7%	9.4%	10.0%
Max	27.8%	19.5%	14.1%

<sup>(\*)</sup> January 31, 1956 to February 28, 2014



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
		•									
1/31/1956	246.77										
2/29/1956	256.42	3.91%	1.039								2/29/1956
3/30/1956	278.04	8.43%	1.084								3/30/1956
4/30/1956	276.03	-0.72%	0.993								4/30/1956
5/31/1956	265.26	-3.90%	0.961								5/31/1956
6/29/1956	273.65	3.16%	1.032								6/29/1956
7/31/1956	294.41	7.59%	1.076								7/31/1956
8/31/1956	288.2	-2.11%	0.979								8/31/1956
9/28/1956	271.73	-5.71%	0.943								9/28/1956
10/31/1956	266.09	-2.08%	0.979								10/31/1956
11/30/1956	252.16	-5.24%	0.948								11/30/1956
12/31/1956	273.42	8.43%	1.084								12/31/1956
1/31/1957	275.72	0.84%	1.008	11.73%							1/31/1957
2/28/1957	265.21	-3.81%	0.962	3.43%							2/28/1957
3/29/1957	275.35	3.82%	1.038	-0.97%							3/29/1957
4/30/1957	288.42	4.75%	1.047	4.49%							4/30/1957
5/31/1957	297.03	2.99%	1.030	11.98%							5/31/1957
6/28/1957	291.66	-1.81%	0.982	6.58%							6/28/1957
7/31/1957	284.78	-2.36%	0.976	-3.27%							7/31/1957
8/30/1957	257.03	-9.74%	0.903	-10.82%							8/30/1957
9/30/1957	239.95	-6.65%	0.934	-11.70%							9/30/1957
10/31/1957	222.99	-7.07%	0.929	-16.20%							10/31/1957
11/29/1957	228.43	2.44%	1.024	-9.41%							11/29/1957
12/31/1957	217.14	-4.94%	0.951	-20.58%							12/31/1957
1/31/1958	226.37	4.25%	1.043	-17.90%							1/31/1958
2/28/1958	224.46	-0.84%	0.992	-15.37%							2/28/1958
3/31/1958	232.31	3.50%	1.035	-15.63%							3/31/1958
4/30/1958	231.22	-0.47%	0.995	-19.83%							4/30/1958
5/30/1958	241.05	4.25%	1.043	-18.85%							5/30/1958
6/30/1958	248.08	2.92%	1.029	-14.94%							6/30/1958
7/31/1958	260.92	5.18%	1.052	-8.38%							7/31/1958
8/29/1958	264.79	1.48%	1.015	3.02%							8/29/1958
9/30/1958	274.55	3.69%	1.037	14.42%							9/30/1958
10/31/1958	278.12	1.30%	1.013	24.72%							10/31/1958
11/28/1958	279.7	0.57%	1.006	22.44%							11/28/1958
12/31/1958	284.99	1.89%	1.019	31.25%							12/31/1958
1/30/1959	293.48	2.98%	1.019	29.65%							1/30/1959
1/50/1353	233.40	2.30/0	1.030	23.03/0							1/50/1353



S&P Composite TR Index	Index	Monthly	Product	1 Year	5 Year	5 Year	10 Year	10 Year	20 Year	20 Year	D. C.
Date	PX_LAST	Return (%)	Return	Total Return	Total Return	Annualized Return	Total Return	Annualized Return	Total Return	Annualized Return	Date
2/27/1959	296.18	0.92%	1.009	31.95%							2/27/1959
3/31/1959	295.19	-0.33%	0.997	27.07%							3/31/1959
4/30/1959	298.6	1.16%	1.012	29.14%							4/30/1959
5/29/1959	299.41	0.27%	1.003	24.21%							5/29/1959
6/30/1959	302.81	1.14%	1.011	22.06%							6/30/1959
7/31/1959	317.12	4.73%	1.047	21.54%							7/31/1959
8/31/1959	301.47	-4.94%	0.951	13.85%							8/31/1959
9/30/1959	288.11	-4.43%	0.956	4.94%							9/30/1959
10/30/1959	288.78	0.23%	1.002	3.83%							10/30/1959
11/30/1959	287.53	-0.43%	0.996	2.80%							11/30/1959
12/31/1959	298.06	3.66%	1.037	4.59%							12/31/1959
1/29/1960	285.31	-4.28%	0.957	-2.78%							1/29/1960
2/29/1960	276.46	-3.10%	0.969	-6.66%							2/29/1960
3/31/1960	277.52	0.38%	1.004	-5.99%							3/31/1960
4/29/1960	273.38	-1.49%	0.985	-8.45%							4/29/1960
5/31/1960	281.77	3.07%	1.031	-5.89%							5/31/1960
6/30/1960	276.03	-2.04%	0.980	-8.84%							6/30/1960
7/29/1960	270.85	-1.88%	0.981	-14.59%							7/29/1960
8/31/1960	289.21	6.78%	1.068	-4.07%							8/31/1960
9/30/1960	276	-4.57%	0.954	-4.20%							9/30/1960
10/31/1960	276.66	0.24%	1.002	-4.20%							10/31/1960
11/30/1960	287.62	3.96%	1.040	0.03%							11/30/1960
12/30/1960	303.37	5.48%	1.055	1.78%							12/30/1960
1/31/1961	321.39	5.94%	1.059	12.65%	30.24%	5.43%					1/31/1961
2/28/1961	332.57	3.48%	1.035	20.30%	29.70%						2/28/1961
3/31/1961	340.11	2.27%	1.023	22.55%	22.32%						3/31/1961
4/28/1961	356.51	4.82%	1.048	30.41%	29.16%						4/28/1961
5/31/1961	364.01	2.10%	1.021	29.19%	37.23%						5/31/1961
6/30/1961	367.96	1.09%	1.011	33.30%	34.46%						6/30/1961
7/31/1961	375.49	2.05%	1.020	38.63%	27.54%						7/31/1961
8/31/1961	381.77	1.67%	1.017	32.00%	32.47%						8/31/1961
9/29/1961	376.89	-1.28%	0.987	36.55%	38.70%						9/29/1961
10/31/1961	379.96	0.81%	1.008	37.34%	42.79%						10/31/1961
11/30/1961	391.82	3.12%	1.031	36.23%	55.39%						11/30/1961
12/29/1961	402.71	2.78%	1.028	32.75%	47.29%						12/29/1961
1/31/1962	393.28	-2.34%	0.977	22.37%	42.64%	7.36%					1/31/1962
2/28/1962	396.21	0.75%	1.007	19.14%	49.39%						2/28/1962



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
3/30/1962	397.06	0.21%	1.002	16.74%	44.20%	7.60%					3/30/1962
4/30/1962	387.27	-2.47%	0.975	8.63%	34.27%	6.07%					4/30/1962
5/31/1962	355.65	-8.16%	0.918	-2.30%	19.74%	3.67%					5/31/1962
6/29/1962	334.16	-6.04%	0.940	-9.19%	14.57%	2.76%					6/29/1962
7/31/1962	343.14	2.69%	1.027	-8.62%	20.49%	3.80%					7/31/1962
8/31/1962	352.16	2.63%	1.026	-7.76%	37.01%	6.50%					8/31/1962
9/28/1962	336.76	-4.37%	0.956	-10.65%	40.35%	7.01%					9/28/1962
10/31/1962	342.95	1.84%	1.018	-9.74%	53.80%	8.99%					10/31/1962
11/30/1962	370.21	7.95%	1.079	-5.52%	62.07%	10.14%					11/30/1962
12/31/1962	374.14	1.06%	1.011	-7.09%	72.30%	11.50%					12/31/1962
1/31/1963	393.65	5.21%	1.052	0.09%							1/31/1963
2/28/1963	381.51	-3.08%	0.969	-3.71%							2/28/1963
3/29/1963	394.45	3.39%	1.034	-0.66%		11.17%					3/29/1963
4/30/1963	414.56	5.10%	1.051	7.05%		12.39%					4/30/1963
5/31/1963	421.77	1.74%	1.017	18.59%	74.97%	11.84%					5/31/1963
6/28/1963	407.89	-3.29%	0.967	22.06%	64.42%	10.46%					6/28/1963
7/31/1963	398.11	-2.40%	0.976	16.02%							7/31/1963
8/30/1963	401.47	0.84%	1.008	14.00%		8.68%					8/30/1963
9/30/1963	415.11	3.40%	1.034	23.27%		8.62%					9/30/1963
10/31/1963	419.49	1.06%	1.011	22.32%							10/31/1963
11/29/1963	415.83	-0.87%	0.991	12.32%							11/29/1963
12/31/1963	432.51	4.01%	1.040	15.60%							12/31/1963
1/31/1964	445.28	2.95%	1.030	13.12%		8.70%					1/31/1964
2/28/1964	442.34	-0.66%	0.993	15.94%		8.35%					2/28/1964
3/31/1964	461.23	4.27%	1.043	16.93%							3/31/1964
4/30/1964	479.38	3.94%	1.039	15.64%							4/30/1964
5/29/1964	496.53	3.58%	1.036	17.73%							5/29/1964
6/30/1964	497.63	0.22%	1.002	22.00%							6/30/1964
7/31/1964	510.63	2.61%	1.026	28.26%		10.00%					7/31/1964
8/31/1964	508.06	-0.50%	0.995	26.55%							8/31/1964
9/30/1964	531.69	4.65%	1.047	28.08%							9/30/1964
10/30/1964	534.86	0.60%	1.006	27.50%							10/30/1964
11/30/1964	537.63	0.52%	1.005	29.29%		13.33%					11/30/1964
12/31/1964	542.51	0.91%	1.009	25.43%							12/31/1964
1/29/1965	574.34	5.87%	1.059	28.98%							1/29/1965
2/26/1965	572.96	-0.24%	0.998	29.53%		15.69%					2/26/1965
3/31/1965	570.05	-0.51%	0.995	23.59%							3/31/1965



S&P Composite TR Index	Index	Monthly	Product	1 Year	5 Year	5 Year	10 Year	10 Year	20 Year	20 Year	Dete
Date	PX_LAST	Return (%)	Return	rotai Keturn	Total Return	Annualized Return	rotal Return	Annualized Return	Total Return	Annualized Return	Date
4/30/1965	585.26	2.67%	1.027	22.09%	114.08%	16.44%					4/30/1965
5/31/1965	584.59	-0.11%	0.999	17.74%							5/31/1965
6/30/1965	546.83	-6.46%	0.935	9.89%		14.65%					6/30/1965
7/30/1965	542.64	-0.77%	0.992	6.27%							7/30/1965
8/31/1965	557.04	2.65%	1.027	9.64%							8/31/1965
9/30/1965	568.53	2.06%	1.021	6.93%		15.55%					9/30/1965
10/29/1965	580.04	2.02%	1.020	8.45%		15.96%					10/29/1965
11/30/1965	564.46	-2.69%	0.973	4.99%							11/30/1965
12/31/1965	578.76	2.53%	1.025	6.68%							12/31/1965
1/31/1966	604.39	4.43%	1.044	5.23%			144.92%	9.37%			1/31/1966
2/28/1966	590.76	-2.26%	0.977	3.11%				8.70%			2/28/1966
3/31/1966	585.1	-0.96%	0.990	2.64%				7.72%			3/31/1966
4/29/1966	592	1.18%	1.012	1.15%		10.68%		7.93%			4/29/1966
5/31/1966	573.16	-3.18%	0.968	-1.96%		9.50%		8.01%			5/31/1966
6/30/1966	572.38	-0.14%	0.999	4.67%				7.66%			6/30/1966
7/29/1966	564.55	-1.37%	0.986	4.04%				6.73%			7/29/1966
8/31/1966	523.94	-7.19%	0.928	-5.94%				6.16%			8/31/1966
9/30/1966	513.34	-2.02%	0.980	-9.71%		6.37%	88.92%	6.57%			9/30/1966
10/31/1966	524.97	2.27%	1.023	-9.49%	38.16%	6.68%	97.29%	7.03%			10/31/1966
11/30/1966	522.32	-0.50%	0.995	-7.47%	33.31%	5.92%	107.14%	7.55%			11/30/1966
12/30/1966	537.86	2.98%	1.030	-7.07%	33.56%	5.96%	96.72%	7.00%			12/30/1966
1/31/1967	576.48	7.18%	1.072	-4.62%	46.58%	7.95%	109.08%	7.65%			1/31/1967
2/28/1967	583.22	1.17%	1.012	-1.28%		8.04%	119.91%	8.20%			2/28/1967
3/31/1967	605.26	3.78%	1.038	3.45%	52.44%	8.80%	119.81%	8.19%			3/31/1967
4/28/1967	619.42	2.34%	1.023	4.63%	59.95%	9.85%	114.76%	7.94%			4/28/1967
5/31/1967	597.15	-3.60%	0.964	4.19%	67.90%	10.92%	101.04%	7.23%			5/31/1967
6/30/1967	615.23	3.03%	1.030	7.49%		12.98%		7.75%			6/30/1967
7/31/1967	636.82	3.51%	1.035	12.80%	85.59%	13.16%	123.62%	8.38%			7/31/1967
8/31/1967	630.53	-0.99%	0.990	20.34%	79.05%	12.36%	145.31%	9.39%			8/31/1967
9/29/1967	645.6	2.39%	1.024	25.76%	91.71%	13.90%	169.06%	10.40%			9/29/1967
10/31/1967	609.7	-5.56%	0.944	16.14%	77.78%	12.20%	173.42%	10.58%			10/31/1967
11/30/1967	626.1	2.69%	1.027	19.87%	69.12%	11.08%	174.09%	10.61%			11/30/1967
12/29/1967	635.15	1.45%	1.014	18.09%	69.76%	11.17%	192.51%	11.33%			12/29/1967
1/31/1968	619.06	-2.53%	0.975	7.39%	57.26%	9.48%	173.47%	10.58%			1/31/1968
2/29/1968	593.28	-4.16%	0.958	1.72%	55.51%	9.23%	164.31%	10.21%			2/29/1968
3/29/1968	581.37	-2.01%	0.980	-3.95%	47.39%	8.07%	150.26%	9.61%			3/29/1968
4/30/1968	634.95	9.22%	1.092	2.51%				10.63%			4/30/1968



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
		(10)									
5/31/1968	629.91	-0.79%	0.992	5.49%		8.35%	161.32%	10.08%			5/31/1968
6/28/1968	665.81	5.70%	1.057	8.22%	63.23%	10.30%	168.39%	10.38%			6/28/1968
7/31/1968	663.87	-0.29%	0.997	4.25%	66.76%	10.77%	154.43%	9.79%			7/31/1968
8/30/1968	682.47	2.80%	1.028	8.24%	69.99%	11.20%	157.74%	9.93%			8/30/1968
9/30/1968	717.69	5.16%	1.052	11.17%	72.89%	11.57%	161.41%	10.09%			9/30/1968
10/31/1968	730.39	1.77%	1.018	19.79%		11.73%	162.62%	10.14%			10/31/1968
11/29/1968	758.78	3.89%	1.039	21.19%	82.47%	12.78%	171.28%	10.49%			11/29/1968
12/31/1968	777.71	2.49%	1.025	22.45%	79.81%	12.45%	172.89%	10.56%			12/31/1968
1/31/1969	799.95	2.86%	1.029	29.22%	79.65%	12.43%	172.57%	10.55%			1/31/1969
2/28/1969	763.47	-4.56%	0.954	28.69%	72.60%	11.53%	157.77%	9.93%			2/28/1969
3/31/1969	790.57	3.55%	1.035	35.98%	71.40%	11.38%	167.82%	10.35%			3/31/1969
4/30/1969	814.65	3.05%	1.030	28.30%	69.94%	11.19%	172.82%	10.56%			4/30/1969
5/30/1969	836.87	2.73%	1.027	32.86%	68.54%	11.00%	179.51%	10.83%			5/30/1969
6/30/1969	749.48	-10.44%	0.896	12.57%	50.61%	8.54%	147.51%	9.49%			6/30/1969
7/31/1969	708.94	-5.41%	0.946	6.79%	38.84%	6.78%	123.56%	8.38%			7/31/1969
8/29/1969	745.52	5.16%	1.052	9.24%	46.74%	7.97%	147.29%	9.48%			8/29/1969
9/30/1969	743.29	-0.30%	0.997	3.57%	39.80%	6.93%	157.99%	9.94%			9/30/1969
10/31/1969	756.17	1.73%	1.017	3.53%	41.38%	7.17%	161.85%	10.10%			10/31/1969
11/28/1969	776.43	2.68%	1.027	2.33%	44.42%	7.63%	170.03%	10.44%			11/28/1969
12/31/1969	771.42	-0.65%	0.994	-0.81%	42.19%	7.29%	158.81%	9.98%			12/31/1969
1/30/1970	743.83	-3.58%	0.964	-7.02%	29.51%	5.31%	160.71%	10.06%			1/30/1970
2/27/1970	764.7	2.81%	1.028	0.16%	33.46%	5.94%	176.60%	10.71%			2/27/1970
3/31/1970	767.41	0.35%	1.004	-2.93%	34.62%	6.13%	176.52%	10.71%			3/31/1970
4/30/1970	701.78	-8.55%	0.914	-13.86%	19.91%	3.70%	156.70%	9.89%			4/30/1970
5/29/1970	634.44	-9.60%	0.904	-24.19%	8.53%	1.65%	125.16%	8.46%			5/29/1970
6/30/1970	624.46	-1.57%	0.984	-16.68%	14.20%	2.69%	126.23%	8.51%			6/30/1970
7/31/1970	655.4	4.95%	1.050	-7.55%				9.24%			7/31/1970
8/31/1970	673.63	2.78%	1.028	-9.64%	20.93%	3.87%	132.92%	8.82%			8/31/1970
9/30/1970	706.91	4.94%	1.049	-4.89%	24.34%	4.45%	156.13%	9.86%			9/30/1970
10/30/1970	688.98	-2.54%	0.975	-8.89%	18.78%	3.50%	149.03%	9.55%			10/30/1970
11/30/1970	720.17	4.53%	1.045	-7.25%	27.59%	4.99%	150.39%	9.61%			11/30/1970
12/31/1970	743.91	3.30%	1.033	-3.57%		5.15%		9.38%			12/31/1970
1/29/1971	768.13	3.26%	1.033	3.27%	27.09%	4.91%	139.00%	9.10%			1/29/1971
2/26/1971	768.66	0.07%	1.001	0.52%	30.11%	5.41%	131.13%	8.74%			2/26/1971
3/31/1971	802.39	4.39%	1.044	4.56%		6.52%	135.92%	8.96%			3/31/1971
4/30/1971	794.09	-1.03%	0.990	13.15%	34.14%	6.05%	122.74%	8.34%			4/30/1971
5/31/1971	778.74	-1.93%	0.981	22.74%				7.90%			5/31/1971



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year	5 Year	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
Date	I X_LAUI	Return (70)	Return	Total Neturn	Total Neturn	Alliualized Netalli	Total Neturn	Alliudiized Return	Total Netalli	Aimuanzea Neturn	Date
6/30/1971	795.96	2.21%	1.022	27.46%	39.06%	6.82%	116.32%	8.02%			6/30/1971
7/30/1971	787.11	-1.11%	0.989	20.10%		6.87%		7.68%			7/30/1971
8/31/1971	783.56	-0.45%	0.995	16.32%		8.38%		7.46%			8/31/1971
9/30/1971	758.44	-3.21%	0.968	7.29%				7.24%			9/30/1971
10/29/1971	710.9	-6.27%	0.937	3.18%	35.42%	6.25%	87.10%	6.47%			10/29/1971
11/30/1971	731.75	2.93%	1.029	1.61%	40.10%	6.98%	86.76%	6.45%			11/30/1971
12/31/1971	803.48	9.80%	1.098	8.01%	49.38%	8.36%	99.52%	7.15%			12/31/1971
1/31/1972	877	9.15%	1.092	14.17%	52.13%	8.75%	123.00%	8.35%			1/31/1972
2/29/1972	909.65	3.72%	1.037	18.34%	55.97%	9.30%	129.59%	8.67%			2/29/1972
3/31/1972	888.65	-2.31%	0.977	10.75%	46.82%	7.98%	123.81%	8.39%			3/31/1972
4/28/1972	900.1	1.29%	1.013	13.35%	45.31%	7.76%	132.42%	8.80%			4/28/1972
5/31/1972	917.17	1.90%	1.019	17.78%	53.59%	8.96%	157.89%	9.94%			5/31/1972
6/30/1972	908.47	-0.95%	0.991	14.14%	47.66%	8.11%	171.87%	10.52%			6/30/1972
7/31/1972	932.88	2.69%	1.027	18.52%	46.49%	7.93%	171.87%	10.52%			7/31/1972
8/31/1972	978.63	4.90%	1.049	24.90%	55.21%	9.19%	177.89%	10.76%			8/31/1972
9/29/1972	967.21	-1.17%	0.988	27.53%	49.82%	8.42%	187.21%	11.13%			9/29/1972
10/31/1972	933.31	-3.50%	0.965	31.29%	53.08%	8.89%	172.14%	10.53%			10/31/1972
11/30/1972	995.88	6.70%	1.067	36.10%	59.06%	9.73%	169.00%	10.40%			11/30/1972
12/29/1972	1023.5	2.77%	1.028	27.38%		10.01%		10.59%			12/29/1972
1/31/1973	1044.42	2.04%	1.020	19.09%		11.03%	165.32%	10.25%			1/31/1973
2/28/1973	1029.03	-1.47%	0.985	13.12%				10.43%			2/28/1973
3/30/1973	1040.96	1.16%	1.012	17.14%				10.19%			3/30/1973
4/30/1973	1000.6	-3.88%	0.961	11.17%		9.52%		9.21%			4/30/1973
5/31/1973	956.91	-4.37%	0.956	4.33%	51.91%	8.72%	126.88%	8.54%			5/31/1973
6/29/1973	972.25	1.60%	1.016	7.02%				9.07%			6/29/1973
7/31/1973	1034.76	6.43%	1.064	10.92%				10.02%			7/31/1973
8/31/1973	1017.08	-1.71%	0.983	3.93%		8.31%		9.74%			8/31/1973
9/28/1973	1065.89	4.80%	1.048	10.20%		8.23%		9.89%			9/28/1973
10/31/1973	1135.71	6.55%	1.066	21.69%		9.23%	170.74%	10.47%			10/31/1973
11/30/1973	1011.86	-10.91%	0.891	1.60%				9.30%			11/30/1973
12/31/1973	1026.3	1.43%	1.014	0.27%				9.03%			12/31/1973
1/31/1974	1052.72	2.57%	1.026	0.79%				8.99%			1/31/1974
2/28/1974	1084.59	3.03%	1.030	5.40%				9.38%			2/28/1974
3/29/1974	1053.51	-2.87%	0.971	1.21%		5.91%		8.61%			3/29/1974
4/30/1974	959.39	-8.93%	0.911	-4.12%		3.32%		7.18%			4/30/1974
5/31/1974	899	-6.29%	0.937	-6.05%		1.44%		6.12%			5/31/1974
6/28/1974	884.15	-1.65%	0.983	-9.06%	17.97%	3.36%	77.67%	5.92%			6/28/1974



S&P Composite TR Index Date	Index PX LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
Date	PA_LAST	Return (%)	Retuin	Total Return	Total Return	Alliualizeu Return	Total Return	Alliualizeu Return	Total Return	Alliualizeu Return	Date
7/31/1974	901.59	1.97%	1.020	-12.87%	27.17%	4.93%	76.56%	5.85%			7/31/1974
8/30/1974	811.6	-9.98%	0.900	-20.20%		1.71%		4.80%			8/30/1974
9/30/1974	738.66	-8.99%	0.910	-30.70%		-0.12%		3.34%			9/30/1974
10/31/1974	811.65	9.88%	1.099	-28.53%				4.26%			10/31/1974
11/29/1974	759.12	-6.47%	0.935	-24.98%				3.51%			11/29/1974
12/31/1974	760.21	0.14%	1.001	-25.93%				3.43%			12/31/1974
1/31/1975	885.96	16.54%	1.165	-15.84%		3.56%		4.43%			1/31/1975
2/28/1975	912.71	3.02%	1.030	-15.85%		3.60%		4.77%			2/28/1975
3/31/1975	901.76	-1.20%	0.988	-14.40%				4.69%			3/31/1975
4/30/1975	922.57	2.31%	1.023	-3.84%	31.46%	5.62%	57.63%	4.66%			4/30/1975
5/30/1975	945.03	2.43%	1.024	5.12%		8.30%		4.92%			5/30/1975
6/30/1975	972.61	2.92%	1.029	10.01%		9.27%	77.86%	5.93%			6/30/1975
7/31/1975	974.11	0.15%	1.002	8.04%	48.63%	8.25%	79.51%	6.03%			7/31/1975
8/29/1975	964.09	-1.03%	0.990	18.79%				5.64%			8/29/1975
9/30/1975	910.29	-5.58%	0.944	23.24%		5.19%		4.82%			9/30/1975
10/31/1975	872.15	-4.19%	0.958	7.45%		4.83%		4.16%			10/31/1975
11/28/1975	920.68	5.56%	1.056	21.28%			63.11%	5.01%			11/28/1975
12/31/1975	900.72	-2.17%	0.978	18.48%	21.08%	3.90%	55.63%	4.52%			12/31/1975
1/30/1976	987.24	9.61%	1.096	11.43%		5.15%	63.34%	5.03%		7.18%	1/30/1976
2/27/1976	1022.24	3.55%	1.035	12.00%	32.99%	5.87%	73.04%	5.64%	298.66%	7.16%	2/27/1976
3/31/1976	1006.7	-1.52%	0.985	11.64%	25.46%	4.64%	72.06%	5.58%	262.07%	6.64%	3/31/1976
4/30/1976	1031.13	2.43%	1.024	11.77%	29.85%	5.36%	74.18%	5.71%	273.56%	6.81%	4/30/1976
5/31/1976	1033.91	0.27%	1.003	9.40%	32.77%	5.83%	80.39%	6.08%	289.77%	7.04%	5/31/1976
6/30/1976	1018.99	-1.44%	0.986	4.77%	28.02%	5.06%	78.03%	5.94%	272.37%	6.79%	6/30/1976
7/30/1976	1019.02	0.00%	1.000	4.61%	29.46%	5.30%	80.50%	6.08%	246.12%	6.40%	7/30/1976
8/31/1976	1019.27	0.02%	1.000	5.72%	30.08%	5.40%	94.54%	6.88%	253.67%	6.52%	8/31/1976
9/30/1976	1003.73	-1.52%	0.985	10.26%	32.34%	5.76%	95.53%	6.94%	269.39%	6.75%	9/30/1976
10/29/1976	970.65	-3.30%	0.967	11.29%		6.43%		6.34%		6.68%	10/29/1976
11/30/1976	904.56	-6.81%	0.932	-1.75%	23.62%	4.33%	73.18%	5.65%	258.72%	6.60%	11/30/1976
12/31/1976	1000	10.55%	1.106	11.02%	24.46%	4.47%	85.92%	6.40%	265.74%	6.70%	12/31/1976
1/31/1977	992.88	-0.71%	0.993	0.57%	13.21%	2.51%	72.23%	5.59%	260.10%	6.62%	1/31/1977
2/28/1977	1009.55	1.68%	1.017	-1.24%	10.98%	2.11%	73.10%	5.64%	280.66%	6.91%	2/28/1977
3/31/1977	1028.14	1.84%	1.018	2.13%	15.70%	2.96%	69.87%	5.44%	273.39%	6.81%	3/31/1977
4/29/1977	1002.94	-2.45%	0.975	-2.73%	11.43%	2.19%	61.92%	4.94%	247.74%	6.43%	4/29/1977
5/31/1977	993.16	-0.98%	0.990	-3.94%	8.29%	1.60%	66.32%	5.22%	234.36%	6.22%	5/31/1977
6/30/1977	1050.85	5.81%	1.058	3.13%	15.67%	2.95%	70.81%	5.50%	260.30%	6.62%	6/30/1977
7/29/1977	1055.55	0.45%	1.004	3.58%	13.15%	2.50%	65.75%	5.18%	270.65%	6.77%	7/29/1977



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
8/31/1977	1028.45	-2.57%	0.974	0.90%	5.09%	1.00%	63.11%	5.01%	200 420/	7.18%	8/31/1977
9/30/1977	1026.45	-2.57% 0.22%	1.002	2.69%				4.79%		7.16% 7.56%	
	1030.73									7.50% 7.80%	9/30/1977 10/31/1977
10/31/1977	1002.32	-2.76%	0.972 1.053	3.26%		1.44%		5.10%		7.80% 7.95%	11/30/1977
11/30/1977 12/30/1977	1107.06	5.30% 4.89%	1.053	16.68% 10.71%				5.36% 5.71%		7.95% 8.49%	12/30/1977
1/31/1978	107.06	4.69% -5.65%	0.944	5.20%				5.71%		7.95%	1/31/1978
2/28/1978	1044.55	-5.65% 1.15%		5.20% 4.65%				5.37% 5.94%		7.95% 8.05%	2/28/1978
3/31/1978			1.011								3/31/1978
	1124.21	6.40%	1.064	9.34%		1.55%		6.82%		8.20%	
4/28/1978	1145.62	1.90%	1.019	14.23%				6.08%		8.33%	4/28/1978
5/31/1978	1200.09	4.75%	1.048	20.84%				6.66%		8.36%	5/31/1978
6/30/1978	1205.44	0.45%	1.004	14.71%		4.39%		6.12%		8.23%	6/30/1978
7/31/1978	1280.39	6.22%	1.062	21.30%				6.79%		8.28%	7/31/1978
8/31/1978	1325.42	3.52%	1.035	28.88%		5.44%		6.86%		8.39%	8/31/1978
9/29/1978	1388.49	4.76%	1.048	34.71%		5.43%		6.82%		8.44%	9/29/1978
10/31/1978	1316.75	-5.17%	0.948	31.37%				6.07%		8.08%	10/31/1978
11/30/1978	1382.25	4.97%	1.050	30.96%				6.18%		8.32%	11/30/1978
12/29/1978	1436.08	3.89%	1.039	29.72%		6.95%		6.33%		8.42%	12/29/1978
1/31/1979	1488.17	3.63%	1.036	42.47%		7.17%		6.40%		8.46%	1/31/1979
2/28/1979	1526.03	2.54%	1.025	44.44%		7.07%		7.17%		8.54%	2/28/1979
3/30/1979	1623.65	6.40%	1.064	44.43%				7.46%		8.90%	3/30/1979
4/30/1979	1646.32	1.40%	1.014	43.71%				7.29%		8.91%	4/30/1979
5/31/1979	1692.56	2.81%	1.028	41.04%		13.49%		7.30%		9.05%	5/31/1979
6/29/1979	1813.17	7.13%	1.071	50.42%	105.07%	15.45%	141.92%	9.24%	498.78%	9.36%	6/29/1979
7/31/1979	1748.91	-3.54%	0.965	36.59%	93.98%	14.17%	146.69%	9.45%	451.50%	8.91%	7/31/1979
8/31/1979	1911.69	9.31%	1.093	44.23%	135.55%	18.69%	156.42%	9.87%	534.12%	9.68%	8/31/1979
9/28/1979	1983.15	3.74%	1.037	42.83%	168.48%	21.84%	166.81%	10.31%	588.33%	10.13%	9/28/1979
10/31/1979	1791.16	-9.68%	0.903	36.03%	120.68%	17.15%	136.87%	9.01%	520.25%	9.55%	10/31/1979
11/30/1979	1937.24	8.16%	1.082	40.15%	155.20%	20.61%	149.51%	9.57%	573.75%	10.01%	11/30/1979
12/31/1979	2079.01	7.32%	1.073	44.77%	173.48%	22.29%	169.50%	10.42%	597.51%	10.20%	12/31/1979
1/31/1980	2327.62	11.96%	1.120	56.41%	162.72%	21.31%	212.92%	12.08%	715.82%	11.07%	1/31/1980
2/29/1980	2524.47	8.46%	1.085	65.43%				12.69%		11.69%	2/29/1980
3/31/1980	2079.19	-17.64%	0.824	28.06%		18.18%		10.48%		10.59%	3/31/1980
4/30/1980	2167.01	4.22%	1.042	31.63%		18.62%		11.94%		10.91%	4/30/1980
5/30/1980	2294.76	5.90%	1.059	35.58%		19.41%		13.72%		11.06%	5/30/1980
6/30/1980	2411.25	5.08%	1.051	32.99%		19.91%		14.47%		11.45%	6/30/1980
7/31/1980	2577.58	6.90%	1.069	47.38%		21.48%		14.68%		11.92%	7/31/1980
8/29/1980	2609.33	1.23%	1.012	36.49%		22.03%		14.50%		11.63%	8/29/1980



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
9/30/1980	2668.43	2.26%	1.023	34.56%	193.14%	24.00%	277.48%	14.21%	866.82%	12.01%	9/30/1980
10/31/1980	2648.72	-0.74%	0.993	47.88%	203.70%			14.41%		11.96%	10/31/1980
11/28/1980	2850.94	7.63%	1.076	47.17%	209.66%	25.36%	295.87%	14.75%		12.15%	11/28/1980
12/31/1980	2705.51	-5.10%	0.949	30.13%		24.60%	263.69%	13.78%		11.56%	12/31/1980
1/30/1981	2658.9	-1.72%	0.983	14.23%				13.22%		11.14%	1/30/1981
2/27/1981	2611.5	-1.78%	0.982	3.45%				13.01%		10.85%	2/27/1981
3/31/1981	2807.3	7.50%	1.075	35.02%			249.87%	13.34%		11.13%	3/31/1981
4/30/1981	2778.4	-1.03%	0.990	28.21%		21.93%	249.88%	13.34%		10.81%	4/30/1981
5/29/1981	2867	3.19%	1.032	24.94%	177.30%	22.63%		13.92%		10.87%	5/29/1981
6/30/1981	2869.3	0.08%	1.001	19.00%			260.48%	13.68%		10.82%	6/30/1981
7/31/1981	2745.3	-4.32%	0.957	6.51%			248.78%	13.31%		10.46%	7/31/1981
8/31/1981	2659.8	-4.32 % -3.11%	0.969	1.93%				13.00%		10.40%	8/31/1981
9/30/1981	2311.5	-13.09%	0.869	-13.38%	130.29%	18.16%	204.77%	11.79%		9.49%	9/30/1981
10/30/1981	2265.9	-1.97%	0.980	-13.36 % -14.45%	133.44%		218.74%	12.29%		9.49%	10/30/1981
11/30/1981	2486.2	9.72%	1.097	-14.43 %			239.76%	13.01%		9.68%	11/30/1981
12/31/1981	2428.3	-2.33%	0.977	-12.79%				11.69%		9.40%	12/31/1981
1/29/1982	2224.23	-8.40%	0.916	-16.35%				9.75%		9.05%	1/29/1982
2/26/1982	2087.86	-6.13%	0.939	-20.05%				8.66%		8.66%	2/26/1982
3/31/1982	1998.61	-4.27%	0.957	-28.81%		14.22%		8.44%		8.42%	3/31/1982
4/30/1982	1952.15	-2.32%	0.977	-20.01%			116.88%	8.05%		8.42%	4/30/1982
5/31/1982	1931.99	-1.03%	0.990	-32.61%				7.73%		8.83%	5/31/1982
6/30/1982	1745.7	-1.03 <i>%</i> -9.64%	0.904	-32.01 %				6.75%		8.62%	6/30/1982
7/30/1982	1808.33	3.59%	1.036	-34.13%	71.32%	11.37%		6.84%		8.67%	7/30/1982
8/31/1982	2074.04	14.69%	1.147	-22.02%	101.67%	15.06%	111.93%	7.80%		9.27%	8/31/1982
9/30/1982	2074.04	-0.12%	0.999	-10.38%			114.19%	7.91%		9.51%	9/30/1982
10/29/1982	2297.6	10.91%	1.109	1.40%				9.43%		9.98%	10/29/1982
11/30/1982	2393.66	4.18%	1.042	-3.72%			140.16%	9.43%		9.78%	11/30/1982
12/31/1982	2562.85	7.07%	1.042	5.54%		18.28%	150.40%	9.61%		10.10%	12/31/1982
1/31/1983	2663.29	3.92%	1.039	19.74%		20.59%		9.81%		10.10%	1/31/1983
2/28/1983	2751.2	3.30%	1.033	31.77%			167.36%	10.33%		10.38%	2/28/1983
3/31/1983	2850.42	3.61%	1.035	42.62%	153.55%		173.83%	10.55%		10.39%	3/31/1983
4/29/1983	3100.13	8.76%	1.088	58.81%				11.97%		10.58%	4/29/1983
5/31/1983	3215.38	3.72%	1.000	66.43%		22.03% 21.79%	209.03%	12.88%		10.69%	5/31/1983
6/30/1983	3263.28	3.72% 1.49%	1.037	86.93%			235.64%	12.87%		10.96%	6/30/1983
7/29/1983	3309.45	1.49%	1.015	83.01%			235.04%	12.33%		11.17%	7/29/1983
8/31/1983	3325.25	0.48%	1.014	60.33%		20.92%	219.63%	12.58%		11.17%	8/31/1983
9/30/1983	3359.74	1.04%	1.005	62.18%		19.33%		12.56% 12.17%		11.15%	9/30/1983
9/30/1903	აააყ./4	1.04%	1.010	02.10%	141.97%	19.55%	215.21%	12.17%	109.30%	11.02%	3/30/1903



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
10/31/1983	3179.01	-5.38%	0.946	38.36%	141.43%	19.28%	179.91%	10.84%	657.83%	10.66%	10/31/1983
11/30/1983	3442.98	8.30%	1.083	43.84%			240.26%	13.03%		11.15%	11/30/1983
12/30/1983	3472.33	0.85%	1.003	35.49%		19.31%		12.96%		10.98%	12/30/1983
1/31/1984	3364.18	-3.11%	0.969	26.32%		17.72%	219.57%	12.32%		10.64%	1/31/1984
2/29/1984	3304.10	-3.11 <i>%</i> -1.71%	0.983	20.32 %				11.79%		10.58%	2/29/1984
3/30/1984	3269.4	-1.71%	0.989	14.70%				11.79%		10.38%	3/30/1984
4/30/1984	3194.12	-2.30%	0.909	3.03%			232.93%	12.78%		9.95%	4/30/1984
5/31/1984	3075.06	-2.30 % -3.73%	0.963	-4.36%		12.68%	232.93 %	13.09%		9.55%	5/31/1984
6/29/1984	3078.32	-3.73 <i>%</i> 0.11%	1.001	-4.30 % -5.67%		11.17%		13.29%		9.54%	6/29/1984
7/31/1984	2973.02		0.966	-3.07 % -10.17%			240.17 %	12.67%		9.21%	7/31/1984
		-3.42%	1.118	-10.17% -0.02%				15.14%			
8/31/1984	3324.46	11.82%					309.62%			9.85%	8/31/1984
9/28/1984	3346.41	0.66%	1.007	-0.40%			353.04%	16.31%		9.63%	9/28/1984
10/31/1984	3296.98	-1.48%	0.985	3.71%		12.98%	306.21%	15.05%		9.52%	10/31/1984
11/30/1984	3328	0.94%	1.009	-3.34%		11.43%	338.40%	15.93%		9.54%	11/30/1984
12/31/1984	3389.25	1.84%	1.018	-2.39%		10.27%	345.83%	16.12%		9.59%	12/31/1984
1/31/1985	3669.57	8.27%	1.083	9.08%				15.27%		9.72%	1/31/1985
2/28/1985	3677.69	0.22%	1.002	11.22%			302.94%	14.95%		9.74%	2/28/1985
3/29/1985	3720.81	1.17%	1.012	13.81%		12.34%		15.23%		9.83%	3/29/1985
4/30/1985	3759.58	1.04%	1.010	17.70%		11.65%		15.08%		9.75%	4/30/1985
5/31/1985	3917.24	4.19%	1.042	27.39%			314.51%	15.28%		9.98%	5/31/1985
6/28/1985	3899.51	-0.45%	0.995	26.68%				14.90%		10.32%	6/28/1985
7/31/1985	4001.53	2.62%	1.026	34.59%				15.18%		10.51%	7/31/1985
8/30/1985	4071.54	1.75%	1.017	22.47%		9.31%		15.50%		10.46%	8/30/1985
9/30/1985	3814.15	-6.32%	0.937	13.98%		7.41%		15.40%		9.98%	9/30/1985
10/31/1985	3882.56	1.79%	1.018	17.76%			345.17%	16.11%		9.97%	10/31/1985
11/29/1985	4157.03	7.07%	1.071	24.91%				16.27%		10.50%	11/29/1985
12/31/1985	4238.78	1.97%	1.020	25.07%				16.75%		10.47%	12/31/1985
1/31/1986	4159.78	-1.86%	0.981	13.36%		9.36%	321.35%	15.47%		10.13%	1/31/1986
2/28/1986	4186.74	0.65%	1.006	13.84%		9.90%		15.14%		10.29%	2/28/1986
3/31/1986	4486.28	7.15%	1.072	20.57%	59.81%	9.83%	345.64%	16.12%	666.75%	10.72%	3/31/1986
4/30/1986	4539.68	1.19%	1.012	20.75%	63.39%	10.32%	340.26%	15.98%	666.84%	10.72%	4/30/1986
5/30/1986	4612	1.59%	1.016	17.74%	60.87%	9.97%	346.07%	16.13%	704.66%	10.99%	5/30/1986
6/30/1986	4577.12	-0.76%	0.992	17.38%	59.52%	9.79%	349.18%	16.21%	699.66%	10.95%	6/30/1986
7/31/1986	4361.33	-4.71%	0.953	8.99%		9.70%	327.99%	15.65%		10.76%	7/31/1986
8/29/1986	4508.28	3.37%	1.034	10.73%			342.30%	16.03%		11.36%	8/29/1986
9/30/1986	4451.7	-1.26%	0.987	16.72%		14.01%		16.06%		11.41%	9/30/1986
10/31/1986	4546.86	2.14%	1.021	17.11%		14.95%		16.70%		11.40%	10/31/1986



S&P Composite TR Index	Index	Monthly	Product	1 Year	5 Year	5 Year	10 Year	10 Year	20 Year	20 Year	
Date	PX_LAST	Return (%)	Return	Total Return	Total Return	Annualized Return	Total Return	Annualized Return	Total Return	Annualized Return	Date
11/28/1986	4568.24	0.47%	1.005	9.89%	83.74%	12.94%	405.02%	17.58%	774.61%	11.45%	11/28/1986
12/31/1986	4618.32	1.10%	1.011	8.95%			361.83%	16.53%	758.65%	11.35%	12/31/1986
1/30/1987	5049.63	9.34%	1.093	21.39%		17.82%	408.58%	17.66%	775.94%	11.46%	1/30/1987
2/27/1987	5283.82	4.64%	1.046	26.20%	153.07%		423.38%	18.00%	805.97%	11.65%	2/27/1987
3/31/1987	5666.89	7.25%	1.072	26.32%		23.18%	451.18%	18.61%	836.27%	11.83%	3/31/1987
4/30/1987	5638.25	-0.51%	0.995	24.20%		23.63%	462.17%	18.85%	810.25%	11.68%	4/30/1987
5/29/1987	5602.05	-0.64%	0.994	21.47%			464.06%	18.89%	838.13%	11.84%	5/29/1987
6/30/1987	5705.34	1.84%	1.018	24.65%	226.82%		442.93%	18.43%	827.35%	11.78%	6/30/1987
7/31/1987	6156.23	7.90%	1.079	41.15%			483.22%	19.28%	866.71%	12.01%	7/31/1987
8/31/1987	6109.49	-0.76%	0.992	35.52%			494.05%	19.50%	868.95%	12.03%	8/31/1987
9/30/1987	5987.36	-2.00%	0.980	34.50%		23.65%	480.89%	19.24%	827.41%	11.78%	9/30/1987
10/30/1987	4638.82	-22.52%	0.775	2.02%		15.09%	362.81%	16.56%	660.84%	10.68%	10/30/1987
11/30/1987	4589.86	-1.06%	0.989	0.47%			334.86%	15.83%	633.09%	10.47%	11/30/1987
12/31/1987	4889.82	6.54%	1.065	5.88%			341.69%	16.01%	669.87%	10.74%	12/31/1987
1/29/1988	4737.55	-3.11%	0.969	-6.18%			353.55%	16.32%	665.28%	10.71%	1/29/1988
2/29/1988	4976.47	5.04%	1.050	-5.82%		12.58%	371.02%	16.76%	738.81%	11.22%	2/29/1988
3/31/1988	5166.26	3.81%	1.038	-8.83%			359.55%	16.48%	788.64%	11.54%	3/31/1988
4/29/1988	5213.41	0.91%	1.009	-7.53%	68.17%	10.96%	355.07%	16.36%	721.07%	11.10%	4/29/1988
5/31/1988	5088.04	-2.40%	0.976	-9.18%			323.97%	15.54%	707.74%	11.01%	5/31/1988
6/30/1988	5410.06	6.33%	1.063	-5.18%	65.79%	10.64%	348.80%	16.20%	712.55%	11.04%	6/30/1988
7/29/1988	5317.08	-1.72%	0.983	-13.63%	60.66%	9.95%	315.27%	15.30%	700.92%	10.96%	7/29/1988
8/31/1988	5196.58	-2.27%	0.977	-14.94%	56.28%	9.34%	292.07%	14.64%	661.44%	10.68%	8/31/1988
9/30/1988	5212.87	0.31%	1.003	-12.94%	55.16%	9.18%	275.43%	14.14%	626.34%	10.42%	9/30/1988
10/31/1988	5399.3	3.58%	1.036	16.39%	69.84%	11.18%	310.05%	15.16%	639.24%	10.52%	10/31/1988
11/30/1988	5255.58	-2.66%	0.973	14.50%	52.65%	8.83%	280.22%	14.29%	592.64%	10.16%	11/30/1988
12/30/1988	5431.68	3.35%	1.034	11.08%	56.43%	9.36%	278.23%	14.23%	598.42%	10.21%	12/30/1988
1/31/1989	5803.9	6.85%	1.069	22.51%	72.52%	11.52%	290.00%	14.58%	625.53%	10.42%	1/31/1989
2/28/1989	5745.48	-1.01%	0.990	15.45%	73.75%	11.68%	276.50%	14.18%	652.55%	10.62%	2/28/1989
3/31/1989	5782.84	0.65%	1.007	11.93%	76.88%	12.08%	256.16%	13.54%	631.48%	10.46%	3/31/1989
4/28/1989	5871.01	1.52%	1.015	12.61%	83.81%	12.95%	256.61%	13.56%	620.68%	10.38%	4/28/1989
5/31/1989	6025.56	2.63%	1.026	18.43%	95.95%	14.40%	256.00%	13.54%	620.01%	10.37%	5/31/1989
6/30/1989	6138.42	1.87%	1.019	13.46%	99.41%	14.80%	238.55%	12.97%	719.02%	11.09%	6/30/1989
7/31/1989	6492.54	5.77%	1.058	22.11%			271.23%	14.02%	815.81%	11.71%	7/31/1989
8/31/1989	6574.01	1.25%	1.013	26.51%			243.88%	13.15%	781.80%	11.50%	8/31/1989
9/29/1989	6489.76	-1.28%	0.987	24.49%		14.16%	227.25%	12.59%	773.11%	11.44%	9/29/1989
10/31/1989	6463.05	-0.41%	0.996	19.70%		14.41%	260.83%	13.69%	754.71%	11.32%	10/31/1989
11/30/1989	6520.92	0.90%	1.009	24.08%	95.94%	14.40%	236.61%	12.90%	739.86%	11.23%	11/30/1989



S&P Composite TR Index Date	Index PX LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
		(70)						7		7	
12/29/1989	6592.58	1.10%	1.011	21.37%				12.23%	754.60%	11.32%	12/29/1989
1/31/1990	6162.06	-6.53%	0.935	6.17%			164.74%	10.23%	728.42%	11.15%	1/31/1990
2/28/1990	6146.24	-0.26%	0.997	6.98%		10.82%	143.47%	9.31%	703.75%	10.98%	2/28/1990
3/30/1990	6093.7	-0.85%	0.991	5.38%		10.37%	193.08%	11.35%	694.06%	10.92%	3/30/1990
4/30/1990	5602.46	-8.06%	0.919	-4.57%		8.30%	158.53%	9.96%	698.32%	10.95%	4/30/1990
5/31/1990	6027.09	7.58%	1.076	0.03%				10.14%	849.99%	11.91%	5/31/1990
6/29/1990	5990.42	-0.61%	0.994	-2.41%		8.97%	148.44%	9.53%	859.30%	11.97%	6/29/1990
7/31/1990	6031.03	0.68%	1.007	-7.11%	50.72%	8.55%	133.98%	8.87%	820.21%	11.74%	7/31/1990
8/31/1990	5686.33	-5.72%	0.943	-13.50%	39.66%	6.91%	117.92%	8.10%	744.13%	11.26%	8/31/1990
9/28/1990	5390.49	-5.20%	0.948	-16.94%	41.33%	7.16%	102.01%	7.28%	662.54%	10.69%	9/28/1990
10/31/1990	5268.72	-2.26%	0.977	-18.48%	35.70%	6.30%	98.92%	7.12%	664.71%	10.71%	10/31/1990
11/30/1990	5406.51	2.62%	1.026	-17.09%	30.06%	5.40%	89.64%	6.61%	650.73%	10.60%	11/30/1990
12/31/1990	5617.01	3.89%	1.039	-14.80%	32.51%	5.79%	107.61%	7.58%	655.07%	10.64%	12/31/1990
1/31/1991	5654.56	0.67%	1.007	-8.24%	35.93%	6.33%	112.67%	7.84%	636.15%	10.50%	1/31/1991
2/28/1991	5999.86	6.11%	1.061	-2.38%	43.31%	7.46%	129.75%	8.67%	680.56%	10.82%	2/28/1991
3/29/1991	6083.5	1.39%	1.014	-0.17%	35.60%	6.28%	116.70%	8.04%	658.17%	10.66%	3/29/1991
4/30/1991	6050.81	-0.54%	0.995	8.00%	33.29%	5.92%	117.78%	8.09%	661.98%	10.69%	4/30/1991
5/31/1991	6213.23	2.68%	1.027	3.09%	34.72%	6.14%	116.72%	8.04%	697.86%	10.94%	5/31/1991
6/28/1991	6102.37	-1.78%	0.982	1.87%	33.32%	5.92%	112.68%	7.84%	666.67%	10.72%	6/28/1991
7/31/1991	6242.16	2.29%	1.023	3.50%	43.13%	7.43%	127.38%	8.56%	693.05%	10.91%	7/31/1991
8/30/1991	6220.42	-0.35%	0.997	9.39%	37.98%	6.65%	133.87%	8.87%	693.87%	10.91%	8/30/1991
9/30/1991	6014.44	-3.31%	0.967	11.58%	35.10%	6.20%	160.20%	10.03%	693.00%	10.91%	9/30/1991
10/31/1991	6249.65	3.91%	1.039	18.62%		6.57%	175.81%	10.68%	779.12%	11.48%	10/31/1991
11/29/1991	6146.27	-1.65%	0.983	13.68%		6.11%	147.22%	9.47%	739.94%	11.23%	11/29/1991
12/31/1991	6291.9	2.37%	1.024	12.02%	36.24%	6.38%	159.11%	9.99%	683.08%	10.84%	12/31/1991
1/31/1992	6452.51	2.55%	1.026	14.11%			190.10%	11.24%	635.75%	10.49%	1/31/1992
2/28/1992	6442.57	-0.15%	0.998	7.38%				11.93%	608.25%	10.28%	2/28/1992
3/31/1992	6162.76	-4.34%	0.957	1.30%			208.35%	11.92%	593.50%	10.17%	3/31/1992
4/30/1992	6069.05	-1.52%	0.985	0.30%		1.48%		12.01%	574.26%	10.01%	4/30/1992
5/29/1992	6143.26	1.22%	1.012	-1.13%			217.98%	12.26%	569.81%	9.98%	5/29/1992
6/30/1992	6170.05	0.44%	1.004	1.11%			253.44%	13.46%	579.17%	10.05%	6/30/1992
7/31/1992	6279.34	1.77%	1.018	0.60%				13.26%	573.11%	10.00%	7/31/1992
8/31/1992	6221.23	-0.93%	0.991	0.01%		0.36%	199.96%	11.61%	535.71%	9.69%	8/31/1992
9/30/1992	6054.57	-2.68%	0.973	0.67%			192.26%	11.32%	525.98%	9.60%	9/30/1992
10/30/1992	6131.98	1.28%	1.013	-1.88%			166.89%	10.31%	557.01%	9.87%	10/30/1992
11/30/1992	6052.93	-1.29%	0.987	-1.52%		5.69%	152.87%	9.72%	507.80%	9.44%	11/30/1992
12/31/1992	6201.72	2.46%	1.025	-1.43%		4.87%		9.24%	505.93%	9.43%	12/31/1992



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
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1/29/1993	6124.83	-1.24%	0.988	-5.08%		5.27%		8.68%	486.43%	9.25%	1/29/1993
2/26/1993	6406.98	4.61%	1.046	-0.55%				8.82%	522.62%	9.57%	2/26/1993
3/31/1993	6714.88	4.81%	1.048	8.96%		5.38%		8.95%	545.07%	9.77%	3/31/1993
4/30/1993	7071.07	5.30%	1.053	16.51%				8.60%	606.68%	10.27%	4/30/1993
5/31/1993	7271.67	2.84%	1.028	18.37%		7.40%		8.50%	659.91%	10.67%	5/31/1993
6/30/1993	7455.35	2.53%	1.025	20.83%				8.61%	666.81%	10.72%	6/30/1993
7/30/1993	7463.91	0.11%	1.001	18.86%		7.02%	125.53%	8.47%	621.32%	10.38%	7/30/1993
8/31/1993	7798.17	4.48%	1.045	25.35%		8.46%		8.90%	666.72%	10.72%	8/31/1993
9/30/1993	7544.63	-3.25%	0.967	24.61%				8.43%	607.82%	10.28%	9/30/1993
10/29/1993	8052.76	6.73%	1.067	31.32%			153.31%	9.74%	609.05%	10.29%	10/29/1993
11/30/1993	7926.13	-1.57%	0.984	30.95%				8.70%	683.32%	10.84%	11/30/1993
12/31/1993	8220.23	3.71%	1.037	32.55%				9.00%	700.96%	10.96%	12/31/1993
1/31/1994	8670.34	5.48%	1.055	41.56%	49.39%	8.36%	157.73%	9.93%	723.61%	11.12%	1/31/1994
2/28/1994	8436.07	-2.70%	0.973	31.67%	46.83%	7.98%		9.82%	677.81%	10.80%	2/28/1994
3/31/1994	8283.08	-1.81%	0.982	23.35%	43.24%	7.45%	153.35%	9.74%	686.24%	10.86%	3/31/1994
4/29/1994	8170.41	-1.36%	0.986	15.55%	39.17%	6.83%	155.80%	9.85%	751.63%	11.30%	4/29/1994
5/31/1994	8301.33	1.60%	1.016	14.16%	37.77%	6.62%	169.96%	10.44%	823.40%	11.76%	5/31/1994
6/30/1994	7748.33	-6.66%	0.933	3.93%	26.23%	4.77%	151.71%	9.67%	776.36%	11.46%	6/30/1994
7/29/1994	8051.04	3.91%	1.039	7.87%	24.00%	4.40%	170.80%	10.48%	792.98%	11.57%	7/29/1994
8/31/1994	8393.82	4.26%	1.043	7.64%	27.68%	5.01%	152.49%	9.70%	934.23%	12.39%	8/31/1994
9/30/1994	8426.82	0.39%	1.004	11.69%	29.85%	5.36%	151.82%	9.68%	1040.83%	12.94%	9/30/1994
10/31/1994	8312.82	-1.35%	0.986	3.23%	28.62%	5.16%	152.13%	9.69%	924.19%	12.34%	10/31/1994
11/30/1994	7945.24	-4.42%	0.956	0.24%	21.84%	4.03%	138.74%	9.09%	946.64%	12.46%	11/30/1994
12/30/1994	8205.73	3.28%	1.033	-0.18%	24.47%	4.47%	142.11%	9.24%	979.40%	12.63%	12/30/1994
1/31/1995	7830.41	-4.57%	0.954	-9.69%	27.07%	4.91%	113.39%	7.87%	783.83%	11.51%	1/31/1995
2/28/1995	8053.21	2.85%	1.028	-4.54%	31.03%	5.55%	118.97%	8.15%	782.34%	11.50%	2/28/1995
3/31/1995	8451.13	4.94%	1.049	2.03%	38.69%	6.76%	127.13%	8.55%	837.18%	11.84%	3/31/1995
4/28/1995	8391.47	-0.71%	0.993	2.71%	49.78%	8.42%	123.20%	8.36%	809.58%	11.67%	4/28/1995
5/31/1995	8741.88	4.18%	1.042	5.31%	45.04%	7.72%	123.16%	8.36%	825.04%	11.77%	5/31/1995
6/30/1995	8923.67	2.08%	1.021	15.17%	48.97%	8.30%	128.84%	8.63%	817.50%	11.72%	6/30/1995
7/31/1995	9104.07	2.02%	1.020	13.08%	50.95%	8.58%	127.51%	8.57%	834.60%	11.82%	7/31/1995
8/31/1995	8926.86	-1.95%	0.981	6.35%		9.44%	119.25%	8.17%	825.94%	11.77%	8/31/1995
9/29/1995	8977.74	0.57%	1.006	6.54%		10.74%	135.38%	8.94%	886.25%	12.12%	9/29/1995
10/31/1995	8845.8	-1.47%	0.985	6.41%		10.92%	127.83%	8.58%	914.25%	12.28%	10/31/1995
11/30/1995	9265.66	4.75%	1.047	16.62%				8.35%	906.39%	12.24%	11/30/1995
12/29/1995	9397.97	1.43%	1.014	14.53%		10.84%	121.71%	8.29%	943.38%	12.44%	12/29/1995
1/31/1996	9913.64	5.49%	1.055	26.60%		11.88%		9.07%	904.18%	12.23%	1/31/1996



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2/29/1996	9861.55	-0.53%	0.995	22.45%			135.54%	8.94%	864.70%	12.00%	2/29/1996
3/29/1996	9964.21	1.04%	1.010	17.90%			122.10%	8.31%	889.79%	12.14%	3/29/1996
4/30/1996	10323.89	3.61%	1.036	23.03%		11.28%	127.41%	8.56%	901.22%	12.21%	4/30/1996
5/31/1996	10543.37	2.13%	1.021	20.61%			128.61%	8.62%	919.76%	12.31%	5/31/1996
6/28/1996	10167.15	-3.57%	0.964	13.93%		10.75%	122.13%	8.31%	897.77%	12.19%	6/28/1996
7/31/1996	9944.05	-2.19%	0.978	9.23%			128.00%	8.59%	875.84%	12.06%	7/31/1996
8/30/1996	10391.76	4.50%	1.045	16.41%			130.50%	8.71%	919.53%	12.31%	8/30/1996
9/30/1996	10716.42	3.12%	1.031	19.37%			140.73%	9.18%	967.66%	12.57%	9/30/1996
10/31/1996	11350.62	5.92%	1.059	28.32%			149.64%	9.58%	1069.38%	13.08%	10/31/1996
11/29/1996	12217.32	7.64%	1.076	31.86%			167.44%	10.34%	1250.64%	13.90%	11/29/1996
12/31/1996	12061.95	-1.27%	0.987	28.35%			161.18%	10.08%	1106.20%	13.26%	12/31/1996
1/31/1997	12444.13	3.17%	1.032	25.53%			146.44%	9.44%	1153.34%	13.48%	1/31/1997
2/28/1997	12560.15	0.93%	1.009	27.36%	94.96%	14.28%	137.71%	9.04%	1144.13%	13.43%	2/28/1997
3/31/1997	11961.2	-4.77%	0.952	20.04%	94.09%	14.18%	111.07%	7.76%	1063.38%	13.05%	3/31/1997
4/30/1997	12227.41	2.23%	1.022	18.44%	101.47%	15.04%	116.87%	8.05%	1119.16%	13.32%	4/30/1997
5/30/1997	13079.21	6.97%	1.070	24.05%	112.90%	16.32%	133.47%	8.85%	1216.93%	13.76%	5/30/1997
6/30/1997	13222.76	1.10%	1.011	30.05%	114.31%	16.47%	131.76%	8.77%	1158.29%	13.50%	6/30/1997
7/31/1997	14135.23	6.90%	1.069	42.15%	125.11%	17.62%	129.61%	8.67%	1239.13%	13.85%	7/31/1997
8/29/1997	13605.16	-3.75%	0.963	30.92%	118.69%	16.94%	122.69%	8.34%	1222.88%	13.78%	8/29/1997
9/30/1997	14513.63	6.68%	1.067	35.43%	139.71%	19.11%	142.40%	9.26%	1308.09%	14.14%	9/30/1997
10/31/1997	14116.3	-2.74%	0.973	24.37%	130.21%	18.15%	204.31%	11.77%	1308.36%	14.14%	10/31/1997
11/28/1997	13454.71	-4.69%	0.953	10.13%	122.28%	17.32%	193.14%	11.35%	1174.75%	13.57%	11/28/1997
12/31/1997	13868.54	3.08%	1.031	14.98%	123.62%	17.46%	183.62%	10.99%	1152.74%	13.47%	12/31/1997
1/30/1998	13881.55	0.09%	1.001	11.55%	126.64%	17.78%	193.01%	11.35%	1228.95%	13.81%	1/30/1998
2/27/1998	14711.4	5.98%	1.060	17.13%	129.62%	18.09%	195.62%	11.45%	1292.41%	14.07%	2/27/1998
3/31/1998	15706.32	6.76%	1.068	31.31%	133.90%	18.52%	204.02%	11.76%	1297.10%	14.09%	3/31/1998
4/30/1998	15938.75	1.48%	1.015	30.35%	125.41%	17.65%	205.73%	11.82%	1291.28%	14.07%	4/30/1998
5/29/1998	15799.89	-0.87%	0.991	20.80%	117.28%	16.79%	210.53%	12.00%	1216.56%	13.76%	5/29/1998
6/30/1998	15367.27	-2.74%	0.973	16.22%	106.12%	15.56%	184.05%	11.00%	1174.83%	13.57%	6/30/1998
7/31/1998	14469.33	-5.84%	0.942	2.36%	93.86%	14.16%	172.13%	10.53%	1030.07%	12.89%	7/31/1998
8/31/1998	11560.18	-20.11%	0.799	-15.03%	48.24%	8.19%	122.46%	8.32%	772.19%	11.44%	8/31/1998
9/30/1998	11761.87	1.74%	1.017	-18.96%	55.90%	9.29%	125.63%	8.48%	747.10%	11.27%	9/30/1998
10/30/1998	13017.91	10.68%	1.107	-7.78%		10.08%	141.10%	9.20%	888.64%	12.14%	10/30/1998
11/30/1998	13319	2.31%	1.023	-1.01%		10.94%	153.43%	9.75%	863.57%	11.99%	11/30/1998
12/31/1998	13648.84	2.48%	1.025	-1.58%		10.67%	151.28%	9.65%	850.42%	11.92%	12/31/1998
1/29/1999	14169.33	3.81%	1.038	2.07%		10.32%	144.13%	9.34%	852.13%	11.93%	1/29/1999
2/26/1999	13306.03	-6.09%	0.939	-9.55%		9.54%	131.59%	8.76%	771.94%	11.44%	2/26/1999



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3/31/1999	13937.91	4.75%	1.047	-11.26%		10.97%	141.02%	9.20%	758.43%	11.35%	3/31/1999
4/30/1999	14828.82	6.39%	1.064	-6.96%	81.49%	12.66%	152.58%	9.71%	800.73%	11.62%	4/30/1999
5/31/1999	14481.01	-2.35%	0.977	-8.35%	74.44%	11.77%	140.33%	9.16%	755.57%	11.33%	5/31/1999
6/30/1999	14864.79	2.65%	1.027	-3.27%	91.85%	13.92%	142.16%	9.25%	719.82%	11.09%	6/30/1999
7/30/1999	15028.68	1.10%	1.011	3.87%	86.67%	13.30%	131.48%	8.76%	759.32%	11.35%	7/30/1999
8/31/1999	14811.04	-1.45%	0.986	28.12%	76.45%	12.03%	125.30%	8.46%	674.76%	10.78%	8/31/1999
9/30/1999	14811.58	0.00%	1.000	25.93%	75.77%	11.94%	128.23%	8.60%	646.87%	10.58%	9/30/1999
10/29/1999	15458.63	4.37%	1.044	18.75%	85.96%	13.21%	139.18%	9.11%	763.05%	11.38%	10/29/1999
11/30/1999	16044.51	3.79%	1.038	20.46%	101.94%	15.09%	146.05%	9.42%	728.21%	11.15%	11/30/1999
12/31/1999	17977.46	12.05%	1.120	31.71%	119.08%	16.98%	172.69%	10.55%	764.71%	11.39%	12/31/1999
1/31/2000	18129.75	0.85%	1.008	27.95%				11.40%	678.90%	10.81%	1/31/2000
2/29/2000	19530.39	7.73%	1.077	46.78%		19.38%	217.76%	12.26%	673.64%	10.77%	2/29/2000
3/31/2000	20277.29	3.82%	1.038	45.48%	139.94%	19.13%	232.76%	12.78%	875.25%	12.06%	3/31/2000
4/28/2000	20039.08	-1.17%	0.988	35.14%	138.80%	19.02%	257.68%	13.59%	824.73%	11.76%	4/28/2000
5/31/2000	19853.19	-0.93%	0.991	37.10%			229.40%	12.66%	765.15%	11.39%	5/31/2000
6/30/2000	21912.16	10.37%	1.104	47.41%		19.68%		13.85%	808.75%	11.67%	6/30/2000
7/31/2000	22373.5	2.11%	1.021	48.87%				14.01%	768.00%	11.41%	7/31/2000
8/31/2000	24204.48	8.18%	1.082	63.42%				15.59%	827.61%	11.78%	8/31/2000
9/29/2000	22360.43	-7.62%	0.924	50.97%	149.07%	20.02%		15.29%	737.96%	11.21%	9/29/2000
10/31/2000	20777.28	-7.08%	0.929	34.41%			294.35%	14.71%	684.43%	10.85%	10/31/2000
11/30/2000	19032.88	-8.40%	0.916	18.63%				13.41%	567.60%	9.96%	11/30/2000
12/29/2000	19309.36	1.45%	1.015	7.41%	105.46%	15.49%	243.77%	13.14%	613.70%	10.33%	12/29/2000
1/31/2001	20160.56	4.41%	1.044	11.20%		15.25%	256.54%	13.56%	658.23%	10.66%	1/31/2001
2/28/2001	17486.34	-13.26%	0.867	-10.47%		12.14%	191.45%	11.29%	569.59%	9.97%	2/28/2001
3/30/2001	16503.59	-5.62%	0.944	-18.61%				10.49%	487.88%	9.26%	3/30/2001
4/30/2001	17246.49	4.50%	1.045	-13.94%				11.04%	520.73%	9.56%	4/30/2001
5/31/2001	17734.7	2.83%	1.028	-10.67%		10.96%		11.06%	518.58%	9.54%	5/31/2001
6/29/2001	16849.28	-4.99%	0.950	-23.11%		10.63%	176.11%	10.69%	487.23%	9.25%	6/29/2001
7/31/2001	16757.9	-0.54%	0.995	-25.10%		11.00%		10.38%	510.42%	9.47%	7/31/2001
8/31/2001	16145.25	-3.66%	0.963	-33.30%				10.01%	507.01%	9.44%	8/31/2001
9/28/2001	14954.42	-7.38%	0.926	-33.12%				9.54%	546.96%	9.79%	9/28/2001
10/31/2001	15071.46	0.78%	1.008	-27.46%	32.78%			9.20%	565.14%	9.94%	10/31/2001
11/30/2001	16270.47	7.96%	1.080	-14.51%		5.90%	164.72%	10.22%	554.43%	9.85%	11/30/2001
12/31/2001	16881.75	3.76%	1.038	-12.57%		6.95%		10.37%	595.21%	10.18%	12/31/2001
1/31/2002	16808.11	-0.44%	0.996	-16.63%		6.20%		10.05%	655.68%	10.64%	1/31/2002
2/28/2002	16801.82	-0.04%	1.000	-3.91%	33.77%	5.99%	160.79%	10.06%	704.74%	10.99%	2/28/2002
3/29/2002	17308.41	3.02%	1.030	4.88%		7.67%	180.85%	10.88%	766.02%	11.40%	3/29/2002



S&P Composite TR Index Date	Index PX LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
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4/30/2002	16903.86	-2.34%	0.977	-1.99%	38.25%	6.69%	178.53%	10.79%	765.91%	11.40%	4/30/2002
5/31/2002	16911.33	0.04%	1.000	-4.64%		5.27%	175.28%	10.66%	775.33%	11.46%	5/31/2002
6/28/2002	15819.63	-6.46%	0.935	-6.11%		3.65%	156.39%	9.87%	806.21%	11.65%	6/28/2002
7/31/2002	14638.28	-7.47%	0.925	-12.65%			133.12%	8.83%	709.49%	11.02%	7/31/2002
8/30/2002	14670.69	0.22%	1.002	-9.13%			135.82%	8.96%	607.35%	10.28%	8/30/2002
9/30/2002	13747.28	-6.29%	0.937	-8.07%			127.06%	8.55%	563.59%	9.92%	9/30/2002
10/31/2002	13913.94	1.21%	1.012	-7.68%	-1.43%	-0.29%	126.91%	8.54%	505.59%	9.42%	10/31/2002
11/29/2002	14648.13	5.28%	1.053	-9.97%		1.71%	142.00%	9.24%	511.96%	9.48%	11/29/2002
12/31/2002	14782.01	0.91%	1.009	-12.44%	6.59%	1.28%	138.35%	9.07%	476.78%	9.16%	12/31/2002
1/31/2003	14702	-0.54%	0.995	-12.53%	5.91%	1.16%	140.04%	9.15%	452.02%	8.92%	1/31/2003
2/28/2003	14698.9	-0.02%	1.000	-12.52%	-0.08%	-0.02%	129.42%	8.66%	434.27%	8.74%	2/28/2003
3/31/2003	14261.66	-2.97%	0.970	-17.60%	-9.20%	-1.91%	112.39%	7.82%	400.34%	8.38%	3/31/2003
4/30/2003	14818.77	3.91%	1.039	-12.33%	-7.03%	-1.45%	109.57%	7.68%	378.00%	8.14%	4/30/2003
5/30/2003	15459	4.32%	1.043	-8.59%	-2.16%	-0.44%	112.59%	7.83%	380.78%	8.17%	5/30/2003
6/30/2003	15776.68	2.05%	1.021	-0.27%	2.66%	0.53%	111.62%	7.78%	383.46%	8.20%	6/30/2003
7/31/2003	16409.18	4.01%	1.040	12.10%			119.85%	8.20%	395.83%	8.33%	7/31/2003
8/29/2003	17004.12	3.63%	1.036	15.91%	47.09%	8.02%	118.05%	8.11%	411.36%	8.50%	8/29/2003
9/30/2003	16833.91	-1.00%	0.990	22.45%	43.12%	7.43%	123.12%	8.36%	401.05%	8.39%	9/30/2003
10/31/2003	17648.99	4.84%	1.048	26.84%	35.57%	6.28%	119.17%	8.16%	455.17%	8.95%	10/31/2003
11/28/2003	17869.04	1.25%	1.012	21.99%	34.16%	6.05%	125.44%	8.47%	419.00%	8.58%	11/28/2003
12/31/2003	18732.48	4.83%	1.048	26.72%	37.25%	6.54%	127.88%	8.59%	439.48%	8.79%	12/31/2003
1/30/2004	19435.62	3.75%	1.038	32.20%	37.17%	6.52%	124.16%	8.41%	477.72%	9.17%	1/30/2004
2/27/2004	20065.93	3.24%	1.032	36.51%	50.80%	8.56%	137.86%	9.05%	506.83%	9.43%	2/27/2004
3/31/2004	19642.96	-2.11%	0.979	37.73%	40.93%	7.10%	137.15%	9.02%	500.81%	9.38%	3/31/2004
4/30/2004	18878.81	-3.89%	0.961	27.40%	27.31%	4.95%	131.06%	8.74%	491.05%	9.29%	4/30/2004
5/31/2004	19304.5	2.25%	1.023	24.88%			132.55%	8.81%	527.78%	9.62%	5/31/2004
6/30/2004	19638.12	1.73%	1.017	24.48%			153.45%	9.75%	537.95%	9.71%	6/30/2004
7/30/2004	19456.65	-0.92%	0.991	18.57%		5.30%	141.67%	9.22%	554.44%	9.85%	7/30/2004
8/31/2004	19299.08	-0.81%	0.992	13.50%		5.44%	129.92%	8.68%	480.52%	9.19%	8/31/2004
9/30/2004	20007.39	3.67%	1.037	18.85%		6.20%	137.43%	9.03%	497.88%	9.35%	9/30/2004
10/29/2004	20494.96	2.44%	1.024	16.13%	32.58%	5.80%	146.55%	9.44%	521.63%	9.57%	10/29/2004
11/30/2004	20892.76	1.94%	1.019	16.92%		5.42%	162.96%	10.15%	527.79%	9.62%	11/30/2004
12/31/2004	21444.89	2.64%	1.026	14.48%		3.59%	161.34%	10.08%	532.73%	9.66%	12/31/2004
1/31/2005	21359.53	-0.40%	0.996	9.90%	17.81%	3.33%	172.78%	10.56%	482.07%	9.21%	1/31/2005
2/28/2005	22464.42	5.17%	1.052	11.95%		2.84%	178.95%	10.80%	510.83%	9.47%	2/28/2005
3/31/2005	22379.49	-0.38%	0.996	13.93%			164.81%	10.23%	501.47%	9.39%	3/31/2005
4/29/2005	21846.77	-2.38%	0.976	15.72%	9.02%	1.74%	160.34%	10.04%	481.10%	9.20%	4/29/2005



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
5/31/2005	22434.39	2.69%	1.027	16.21%				9.88%		9.12%	5/31/2005
6/30/2005	23180.9	3.33%	1.033	18.04%				10.02%		9.32%	6/30/2005
7/29/2005	24412.18	5.31%	1.053	25.47%		1.76%		10.37%		9.46%	7/29/2005
8/31/2005	25023.47	2.50%	1.025	29.66%				10.86%		9.50%	8/31/2005
9/30/2005	25877.61	3.41%	1.034	29.34%				11.17%		10.05%	9/30/2005
10/31/2005	24415.41	-5.65%	0.943	19.13%				10.69%		9.63%	10/31/2005
11/30/2005	25494.03	4.42%	1.044	22.02%		6.02%	175.15%	10.65%		9.49%	11/30/2005
12/30/2005	26618.8	4.41%	1.044	24.13%		6.63%		10.97%		9.62%	12/30/2005
1/31/2006	28232.24	6.06%	1.061	32.18%				11.03%		10.05%	1/31/2006
2/28/2006	27662.99	-2.02%	0.980	23.14%			180.51%	10.87%		9.90%	2/28/2006
3/31/2006	28742.03	3.90%	1.039	28.43%				11.18%		9.73%	3/31/2006
4/28/2006	28997.6	0.89%	1.009	32.73%				10.88%		9.72%	4/28/2006
5/31/2006	27964.06	-3.56%	0.964	24.65%		9.54%	165.23%	10.25%		9.43%	5/31/2006
6/30/2006	27734.68	-0.82%	0.992	19.64%		10.48%		10.56%		9.43%	6/30/2006
7/31/2006	28298.01	2.03%	1.020	15.92%			184.57%	11.02%		9.80%	7/31/2006
8/31/2006	28938.66	2.26%	1.023	15.65%				10.78%		9.74%	8/31/2006
9/29/2006	28267.15	-2.32%	0.977	9.23%		13.58%		10.19%		9.68%	9/29/2006
10/31/2006	29707.07	5.09%	1.051	21.67%	97.11%	14.54%	161.72%	10.10%	553.35%	9.84%	10/31/2006
11/30/2006	30752.95	3.52%	1.035	20.63%	89.01%	13.58%	151.72%	9.67%	573.19%	10.00%	11/30/2006
12/29/2006	31213.49	1.50%	1.015	17.26%		13.08%	158.78%	9.97%	575.86%	10.03%	12/29/2006
1/31/2007	31573.54	1.15%	1.012	11.84%	87.85%	13.44%	153.72%	9.76%	525.26%	9.60%	1/31/2007
2/28/2007	31653.69	0.25%	1.003	14.43%	88.39%	13.50%	152.02%	9.68%	499.07%	9.36%	2/28/2007
3/30/2007	32025.58	1.17%	1.012	11.42%	85.03%	13.10%	167.75%	10.35%	465.14%	9.05%	3/30/2007
4/30/2007	32687.48	2.07%	1.021	12.72%	93.37%	14.10%	167.33%	10.33%	479.75%	9.18%	4/30/2007
5/31/2007	34319.04	4.99%	1.050	22.73%	102.94%	15.21%	162.39%	10.13%	512.62%	9.49%	5/31/2007
6/29/2007	34038.36	-0.82%	0.992	22.73%	115.17%	16.56%	157.42%	9.92%	496.61%	9.34%	6/29/2007
7/31/2007	33995.28	-0.13%	0.999	20.13%	132.24%	18.35%	140.50%	9.17%		8.92%	7/31/2007
8/31/2007	33555.31	-1.29%	0.987	15.95%	128.72%	17.99%	146.64%	9.45%	449.23%	8.89%	8/31/2007
9/28/2007	34714.92	3.46%	1.035	22.81%	152.52%	20.35%	139.19%	9.11%	479.80%	9.19%	9/28/2007
10/31/2007	36072.14	3.91%	1.039	21.43%			155.54%	9.84%	677.61%	10.80%	10/31/2007
11/30/2007	33830.05	-6.22%	0.938	10.01%	130.95%	18.22%	151.44%	9.66%	637.06%	10.50%	11/30/2007
12/31/2007	34282.35	1.34%	1.013	9.83%	131.92%	18.32%	147.20%	9.47%		10.23%	12/31/2007
1/31/2008	32665.06	-4.72%	0.953	3.46%		17.31%	135.31%	8.93%		10.14%	1/31/2008
2/29/2008	33790.86	3.45%	1.034	6.75%		18.11%	129.69%	8.67%		10.05%	2/29/2008
3/31/2008	33307.55	-1.43%	0.986	4.00%		18.49%		7.81%		9.77%	3/31/2008
4/30/2008	34838.87	4.60%	1.046	6.58%	135.10%	18.65%	118.58%	8.13%		9.96%	4/30/2008
5/30/2008	36857.32	5.79%	1.058	7.40%		18.98%		8.84%		10.41%	5/30/2008



S&P Composite TR Index Date	Index PX LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized Return	10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
Date	FA_LAST	Return (%)	Return	Total Return	Total Return	Alliudiizeu Returii	Total Return	Alliudiizeu Ketulli	Total Return	Alliualizeu Return	Date
6/30/2008	36335.84	-1.41%	0.986	6.75%	130.31%	18.16%	136.45%	8.99%	571.63%	9.99%	6/30/2008
7/31/2008	34206.47	-5.86%	0.941	0.62%	108.46%		136.41%	8.98%	543.33%	9.75%	7/31/2008
8/29/2008	34734.66	1.54%	1.015	3.51%	104.27%	15.36%	200.47%	11.63%	568.41%	9.96%	8/29/2008
9/30/2008	29716.94	-14.45%	0.856	-14.40%		12.04%	152.65%	9.71%	470.07%	9.09%	9/30/2008
10/31/2008	24763.48	-16.67%	0.833	-31.35%			90.23%	6.64%	358.64%	7.91%	10/31/2008
11/28/2008	23590.58	-4.74%	0.953	-30.27%	32.02%	5.71%	77.12%	5.88%	348.87%	7.80%	11/28/2008
12/31/2008	22967.98	-2.64%	0.974	-33.00%			68.28%	5.34%	322.85%	7.48%	12/31/2008
1/30/2009	22287.88	-2.96%	0.970	-31.77%	14.68%	2.78%	57.30%	4.63%	284.02%	6.96%	1/30/2009
2/27/2009	20881.33	-6.31%	0.937	-38.20%		0.80%	56.93%	4.61%	263.44%	6.66%	2/27/2009
3/31/2009	22507.7	7.79%	1.078	-32.42%			61.49%	4.91%	289.22%	7.03%	3/31/2009
4/30/2009	24141.96	7.26%	1.073	-30.70%			62.80%	4.99%	311.21%	7.33%	4/30/2009
5/29/2009	26909.41	11.46%	1.115	-26.99%	39.39%		85.83%	6.39%	346.59%	7.77%	5/29/2009
6/30/2009	27002.03	0.34%	1.003	-25.69%	37.50%	6.58%	81.65%	6.15%	339.89%	7.69%	6/30/2009
7/31/2009	28140.9	4.22%	1.042	-17.73%	44.63%	7.66%	87.25%	6.47%	333.43%	7.61%	7/31/2009
8/31/2009	28407.39	0.95%	1.009	-18.22%	47.20%		91.80%	6.73%	332.12%	7.59%	8/31/2009
9/30/2009	29867.9	5.14%	1.051	0.51%		8.34%	101.65%	7.27%	360.23%	7.93%	9/30/2009
10/30/2009	28660.23	-4.04%	0.960	15.74%		6.94%	85.40%	6.37%	343.45%	7.73%	10/30/2009
11/30/2009	30137.61	5.15%	1.052	27.75%	44.25%	7.60%	87.84%	6.51%	362.17%	7.95%	11/30/2009
12/31/2009	31019.4	2.93%	1.029	35.05%		7.66%	72.55%	5.61%	370.52%	8.05%	12/31/2009
1/29/2010	29360.52	-5.35%	0.947	31.73%	37.46%	6.57%	61.95%	4.94%	376.47%	8.12%	1/29/2010
2/26/2010	30820.61	4.97%	1.050	47.60%			57.81%	4.67%	401.45%	8.40%	2/26/2010
3/31/2010	31994.24	3.81%	1.038	42.15%		7.41%	57.78%	4.67%	425.04%	8.64%	3/31/2010
4/30/2010	32527.15	1.67%	1.017	34.73%	48.89%	8.29%	62.32%	4.96%	480.59%	9.19%	4/30/2010
5/31/2010	31395.79	-3.48%	0.965	16.67%	39.94%	6.95%	58.14%	4.69%	420.91%	8.60%	5/31/2010
6/30/2010	30229.89	-3.71%	0.963	11.95%	30.41%	5.45%	37.96%	3.27%	404.64%	8.43%	6/30/2010
7/30/2010	31426.67	3.96%	1.040	11.68%	28.73%	5.18%	40.46%	3.46%	421.08%	8.60%	7/30/2010
8/31/2010	32022.8	1.90%	1.019	12.73%	27.97%	5.06%	32.30%	2.84%	463.15%	9.03%	8/31/2010
9/30/2010	33331.94	4.09%	1.041	11.60%	28.81%	5.19%	49.07%	4.07%	518.35%	9.54%	9/30/2010
10/29/2010	34235.4	2.71%	1.027	19.45%	40.22%	6.99%	64.77%	5.12%	549.79%	9.81%	10/29/2010
11/30/2010	35046.9	2.37%	1.024	16.29%	37.47%	6.57%	84.14%	6.30%	548.24%	9.80%	11/30/2010
12/31/2010	36480.62	4.09%	1.041	17.61%	37.05%	6.51%	88.93%	6.57%	549.47%	9.81%	12/31/2010
1/31/2011	36840.37	0.99%	1.010	25.48%	30.49%	5.47%	82.73%	6.21%	551.52%	9.82%	1/31/2011
2/28/2011	38474.92	4.44%	1.044	24.84%	39.08%	6.82%	120.03%	8.21%	541.26%	9.74%	2/28/2011
3/31/2011	38522.86	0.12%	1.001	20.41%		6.03%	133.42%	8.85%	533.24%	9.67%	3/31/2011
4/29/2011	38129.27	-1.02%	0.990	17.22%		5.63%	121.08%	8.26%	530.15%	9.64%	4/29/2011
5/31/2011	37798.54	-0.87%	0.991	20.39%		6.21%	113.13%	7.86%	508.36%	9.45%	5/31/2011
6/30/2011	36539.76	-3.33%	0.967	20.87%		5.67%	116.86%	8.05%	498.78%	9.36%	6/30/2011



S&P Composite TR Index	Index	Monthly	Product	1 Year	5 Year	5 Year	10 Year	10 Year	20 Year	20 Year	
Date	PX_LAST	Return (%)	Return	Total Return	Total Return	Annualized Return	Total Return	Annualized Return	Total Return	Annualized Return	Date
7/29/2011	35626.87	-2.50%	0.975	13.37%	25.90%	4.71%	112.60%	7.83%	470.75%	9.10%	7/29/2011
8/31/2011	35196.21	-1.21%	0.988	9.91%			118.00%	8.10%	465.82%	9.05%	8/31/2011
9/30/2011	32147.72	-8.66%	0.913	-3.55%	13.73%	2.61%	114.97%	7.95%	434.51%	8.74%	9/30/2011
10/31/2011	33950.26	5.61%	1.056	-0.83%	14.28%	2.71%	125.26%	8.46%	443.23%	8.83%	10/31/2011
11/30/2011	33878.55	-0.21%	0.998	-3.33%	10.16%	1.95%	108.22%	7.61%	451.21%	8.91%	11/30/2011
12/30/2011	33302.95	-1.70%	0.983	-8.71%	6.69%	1.30%	97.27%	7.03%	429.30%	8.69%	12/30/2011
1/31/2012	34759.27	4.37%	1.044	-5.65%	10.09%	1.94%	106.80%	7.54%	438.69%	8.78%	1/31/2012
2/29/2012	35340.93	1.67%	1.017	-8.15%	11.65%	2.23%	110.34%	7.72%	448.55%	8.88%	2/29/2012
3/30/2012	34764.84	-1.63%	0.984	-9.76%	8.55%	1.65%	100.86%	7.22%	464.11%	9.04%	3/30/2012
4/30/2012	34557.53	-0.60%	0.994	-9.37%	5.72%	1.12%	104.44%	7.41%	469.41%	9.09%	4/30/2012
5/31/2012	32435.71	-6.14%	0.939	-14.19%	-5.49%	-1.12%	91.80%	6.73%	427.99%	8.68%	5/31/2012
6/29/2012	32792.83	1.10%	1.011	-10.25%	-3.66%	-0.74%	107.29%	7.56%	431.48%	8.71%	6/29/2012
7/31/2012	33055.25	0.80%	1.008	-7.22%	-2.77%	-0.56%	125.81%	8.49%	426.41%	8.66%	7/31/2012
8/31/2012	33930.46	2.65%	1.026	-3.60%	1.12%	0.22%	131.28%	8.75%	445.40%	8.85%	8/31/2012
9/28/2012	35094.2	3.43%	1.034	9.17%	1.09%	0.22%	155.28%	9.83%	479.63%	9.18%	9/28/2012
10/31/2012	35469.14	1.07%	1.011	4.47%	-1.67%	-0.34%	154.92%	9.81%	478.43%	9.17%	10/31/2012
11/30/2012	35014.36	-1.28%	0.987	3.35%	3.50%	0.69%	139.04%	9.11%	478.47%	9.17%	11/30/2012
12/31/2012	35696.72	1.95%	1.019	7.19%	4.13%	0.81%	141.49%	9.22%	475.59%	9.15%	12/31/2012
1/31/2013	36500.6	2.25%	1.023	5.01%	11.74%	2.25%	148.27%	9.52%	495.94%	9.34%	1/31/2013
2/28/2013	36958.9	1.26%	1.013	4.58%	9.38%	1.81%	151.44%	9.66%	476.85%	9.16%	2/28/2013
3/31/2013	36887.8	-0.19%	0.998	6.11%	10.75%	2.06%	158.65%	9.97%	449.34%	8.89%	3/31/2013
4/30/2013	36123.8	-2.07%	0.979	4.53%	3.69%	0.73%	143.77%	9.32%	410.87%	8.50%	4/30/2013
5/31/2013	36763.3	1.77%	1.018	13.34%	-0.26%	-0.05%	137.81%	9.05%	405.57%	8.44%	5/31/2013
6/29/2013	35382.2	-3.76%	0.962	7.90%	-2.62%	-0.53%	124.27%	8.41%	374.59%	8.10%	6/29/2013
7/31/2013	36509.9	3.19%	1.032	10.45%	6.73%	1.31%	122.50%	8.33%	389.15%	8.26%	7/31/2013
8/31/2013	37075.1	1.55%	1.015	9.27%	6.74%	1.31%	118.04%	8.11%	375.43%	8.11%	8/31/2013
9/28/2013	37593.5	1.40%	1.014	7.12%	26.51%	4.81%	123.32%	8.37%	398.28%	8.36%	9/28/2013
10/31/2013	39369.5	4.72%	1.047	11.00%	58.98%	9.72%	123.07%	8.35%	388.89%	8.26%	10/31/2013
11/30/2013	39547.7	0.45%	1.005	12.95%	67.64%	10.89%	121.32%	8.27%	398.95%	8.37%	11/30/2013
12/31/2013	40334.4	1.99%	1.020	12.99%	75.61%	11.92%	115.32%	7.97%	390.67%	8.28%	12/31/2013
1/31/2014	40663.6	0.82%	1.008	11.41%	82.45%	12.78%	109.22%	7.66%	369.00%	8.03%	1/31/2014
2/28/2014	42260.2	3.93%	1.039	14.34%		15.14%	110.61%	7.73%	400.95%	8.39%	2/28/2014



S&P Composite TR Index Date	Index PX_LAST	Monthly Return (%)	Product Return	1 Year Total Return	5 Year Total Return	5 Year Annualized F		10 Year Total Return	10 Year Annualized Return	20 Year Total Return	20 Year Annualized Return	Date
			Minimum Maximum		-9.20% 240.44%		-1.91% 27.76%	32.30% 494.05% 5 Year	2.84% 19.50%	234.36% 1308.36%	6.22% 14.14%	
Percentile	1% 5 Year		20 Year			Total Return	-2.48%	Annualized Retu -0.50%	ırn			
	-0.5%					10 Year Total Return		10 Year Annualized Retu 3.95%	ırn			
						20 Year Total Return 2		20 Year Annualized Retu 6.6%	ırn			

CAC (MPI) 1-151 Reference: Volume 2, Investment Income, II.5.3,

Preamble: Total Return Assumptions, pages 35. "The large impact over the rating years can be explained by the timing of rebalancing"

Please provide an explanation of what the Corporation means by rebalancing and provide a simplified illustrative example.

#### **RESPONSE:**

Please see Volume II Investment Income, Section 10 on Rebalancing. This section describes the rebalancing rules for each asset class.

Here is a simplified example of rebalancing for Canadian equities. The market value of the Canadian equity portfolio is above the 18% total portfolio limit for two quarters. In the third quarter, the Canadian equity portfolio is rebalanced to the 15% target weight for the asset class, with the surplus funds transferred to the marketable bond portfolio.

CAC (MPI) 1-152 Reference: Volume 2, Investment Income, II.5.3,

Preamble: Total Return Assumptions, pages 36. "For historical information, the rolling five year return for the Corporation's Canadian equity managers is shown in the chart below."

- a) What insight, if any, does the Corporation suggest should be drawn from the rolling five year return for the Canadian equity managers?
- b) Are there any unique factors within the most recent five years which would suggest that caution should be used in interpreting the results? If yes, please identify these factors.

## **RESPONSE:**

- a) The five year rolling performance graph smoothes out performance data and minimizes end date sensitivity. The graph shows five year performance over an extended period beginning in May 2003 to February 2014 (130 months) and maps performance over bull and bear market cycles. There are several insights that can be drawn from the graph:
  - Canadian equity performance is volatile and extreme in relation to the forecast expectation (of 7.3%). Over the last 130 months, the five year performance ranged from a high of 20.1% to a low of 1.0%. The standard deviation of the returns was 5.2%.
  - Canadian equity performance rarely earns the forecast expectation of 7.3%.
     Over the last 130 months, the asset class outperformed the forecasted return 58% of the time and underperformed the forecast 42% of the time.
  - The periods of outperformance and underperformance relative to the forecast expectations can last for a long time.
  - Currently, the five year annualized Canadian equity performance is close to its high (of 20.1% in October 2007), earning 17.8% over the five years ended at February 2014.

- b) Yes, there are unique factors within the most recent five years which would suggest that caution should be used in interpreting the results. The factors are:
  - Over the last five years (February 2009 to February 2014) the Canadian equity asset class underperformed the forecast expectation for the majority of time. The reason is because the equity asset class was negatively affected by the financial crisis of 2008.
  - The performance from October 2013 to February 2014 is well above the forecasted return and may not be repeated in the near future.

CAC (MPI) 1-153 Reference: Volume I SM.4 Projected
Financial Results page 3

Preamble: "The first three pages contain the base forecast that supports the application for a 2.4% rate increase and a 1% RSR rebuilding fee".

- a) The first three pages containing the base forecast are not included in this section. Please file a copy of the base forecast (excluding the 2.4% proposed rate increase and the proposed 1% RSR rebuilding fee) including the Income Statement, Balance Sheet and Statement of Retained Earnings.
- b) Should the 1% RSR rebuilding fee be approved by the PUB:
  - (i) Please describe, by way of an example, how the resulting net income would be accounted for on the Income Statement and Statement of Retained Earnings.
  - (ii) Please elaborate when the proposed 1% RSR rebuilding fee would be returned to the rate payers, should it be approved by the PUB.

- a) See PUB (MPI) 1-98.
- b) All income generated in the year will flow through the income statement and into retained earnings. Unless the RSR reaches the upper limit, total income including the 1% fee will be transferred to the reserve which is shown separately on the statement of equity.

## CAC (MPI) 1-154 Reference: Volume II Pro Formas

Please prepare a summary Basic Insurance Income Statement and Retained Earnings Statement (historical and projected) for the fiscal years 2010/11A through 2018/19P (One spreadsheet for the Income Statement and one spreadsheet for the Retained Earnings Statement).

#### **RESPONSE:**

Please refer to CAC (MPI) 1-2 a) and b).

### CAC (MPI) 1-155 Reference: Volume II Pro Formas

Please prepare the following sets of financial statements (Pro Formas):

- a) Increase rates by 1%
- b) Increase rates by 2%
- c) No rate increase but applying the MPI "risk based interest rate forecasting methodology"
- d) No rate increase but increase the basic deductible from \$500 to \$750.

- a) Please refer to PUB (MPI) 1-4 c).
- b) Please refer to attachment.
- c) Please refer to attachment.
- d) The Corporation does not consider changes to Basic coverage and territories as this is the exclusive purview of the Legislature of Manitoba through amendments to *The Manitoba Public Insurance Corporation Act* and regulations thereunder. The Corporation administers the universal compulsory automobile insurance plan and implements changes as legislated by government.

#### Manitoba Public Insurance

#### Multi-year Statements

For the Years Ended February,

#### 2015/16 - 2.0% Rate Increase

(C\$ 000s, except where noted) For the Years Ended February, 2014A 2015F 2016P 2018P 2019P 2017P **BASIC** 795,233 Motor Vehicles 756,642 847,509 885,417 924,904 966,062 Drivers 41,520 46,992 51,284 55,427 59,418 62,982 Reinsurance Ceded (13,422)(13,661)(13,934)(14,213)(14,497)(14,787)**Total Net Premiums Written** 784,740 828,564 884,858 926,631 969,825 1,014,257 Net Premiums Earned 741,077 769,872 822,939 946,718 Motor Vehicles 867,600 906,345 Drivers 37,015 44,330 49,138 53,355 57,422 61,201 Reinsurance Ceded (13,722)(13,934)(14,213)(14,497)(14,787)(13,422)Total Net Premiums Earned 764,670 800,480 858,143 906,742 949,270 993,132 Service Fees & Other Revenues 20,384 19,799 21,079 22,736 24,586 26,694 Total Earned Revenues 785,053 820,279 879,222 929,478 973,856 1,019,826 Net Claims Incurred 747,435 624,776 826,750 672,137 725,236 748,691 Claims Expense 114,552 116,249 120,486 126,010 127,314 138,319 Road Safety/Loss Prevention 12,816 11,350 10,514 10,564 10,606 10,648 **Total Claims Costs** 874,803 752,376 803,137 861,810 886,610 975,717 **Expenses** 67,982 73,568 74,791 79,063 81,043 87,298 Operating Commissions 32,057 33,496 34,007 35,573 37,036 38,559 Premium Taxes 23,342 24,426 26.162 27.629 28.913 30.238 Regulatory/Appeal 3,766 3,261 3,314 3,380 3,447 3,516 127,147 145,645 **Total Expenses** 134,751 138,274 150,438 159,610 Underwriting Income (Loss) (216,897)(66,848)(62, 189)(77,976)(63, 192)(115,501)Investment Income 147,735 28,807 49,899 84,769 76,668 126,278 (12,291)6,793 13,476 Net Income (Loss) from Operations (69, 162)(38,042)10,777

## Manitoba Public Insurance Multi-year Statements - Balance Sheet

2015/16 - 2.0% Rate Increase		_				
(C\$ 000s, except where noted)			the Years En	•		20125
DAGIO	<u>2014A</u>	<u>2015P</u>	<u>2016P</u>	<u>2017P</u>	<u>2018P</u>	<u>2019F</u>
BASIC						
Assets	4 404 044	4 000 000	4.054.044	4 000 774	4.050.004	4 450 504
Cash and investments	1,424,341	1,309,922	1,251,014	1,333,771	1,358,001	1,450,531
Equity investments	600,483	619,956	698,517	670,073	710,663	727,331
Investment property	32,226	31,192	30,900	30,622	30,374	30,194
Due from other insurance companies	1,755	-	-	-	-	
Accounts receivable	235,616	249,289	263,894	275,021	286,494	298,296
Prepaid expenses	731	568	568	568	568	568
Deferred policy acquisition costs	-	-	-	-	-	
Reinsurers' share of unearned premiums	-	-	-	-	-	
Reinsurers' share of unearned claims	17,625	-	-	-	-	
Property and equipment	80,108	85,033	85,517	83,746	82,549	80,948
Deferred development costs	54,685	70,701	81,714	86,063	90,579	77,606
	2,447,570	2,366,661	2,412,123	2,479,862	2,559,227	2,665,474
Liabilities						
Due to other insurance companies						
Accounts payable and accrued liabilites	1,213	1,596	1,596	1,596	1,596	1,596
Financing lease obligation	35,769	35,673	37,763	39,356	40,997	42,686
Unearned premiums and fees	2,841	3,079	3,020	2,956	2,887	2,814
Provision for employee current benefits	402,982	438,580	468,518	491,883	516,188	541,360
Provision for employee future benefits	15,389	16,544	17,653	18,782	19,931	21,103
Provision for unpaid claims	235,172	249,058	262,114	276,474	291,389	306,958
	1,584,042	1,489,392	1,494,005	1,520,011	1,535,326	1,592,538
Equity	2,277,408	2,233,923	2,284,669	2,351,057	2,408,315	2,509,055
Retained earnings						
Basic Insurance Retained Earnings						
Rate Stabilization Reserve						
Retained Earnings	99,878	61,836	49,546	56,339	69,815	80,592
Information Technology Optimization Fund	-	-	-	-	_	
<del></del>	99,878	61,836	49,546	56,339	69,815	80,592
Accumulated Other Comprehensive Income	70,284	70,902	77,909	72,466	81,097	75,827
Total Equity	170,162	132,738	127,455	128,805	150,912	156,419
	2,447,570	2,366,661	2,412,123	2,479,862	2,559,227	2,665,474





## Manitoba Public Insurance Statement of Retained Earnings

2015/16 - 2.0% Rate Increase							
(C\$ 000s, except where noted)		For the Years Ended February,					
		2014A	<u>2015P</u>	<u>2016P</u>	<u>2017P</u>	<u>2018P</u>	2019P
RATE STABILIZATION RESERVE (RSR)							
Basic Insurance Rate Stabil	ization Reserve						
	Beginning Balance	149,800	99,878	61,836	49,546	56,339	69,815
	Transfer from (to) Basic Retained Earnings	(49,922)	(38,042)	(12,291)	6,793	13,476	10,777
	Ending Balance	99,878	61,836	49,546	56,339	69,815	80,592
	Minimum RSR based on PUB rules	78,500	82,900	88,500	92,700	97,000	101,500
	Maximum RSR based on PUB rules	156,900	165,600	176,800	185,100	193,700	202,600
	MPI RSR Target	172,000	194,000	194,000	194,000	194,000	194,000
Retained Earnings							
	Beginning Balance	19,240	-	-	-	-	-
	Net Income (Loss) from annual operations	(69,162)	(38,042)	(12,291)	6,793	13,476	10,777
	Retained Earnings Prior to Transfers	(49,922)	(38,042)	(12,291)	6,793	13,476	10,777
	Transfer from (to) Rate Stabilization Reserve	49,922	38,042	12,291	(6,793)	(13,476)	(10,777)
	Balance of Fund	-	-	-	-	-	-
Total Basic Retained Earnin	gs	\$ 99,878 \$	61,836 \$	49,546 \$	56,339 \$	69,815 \$	80,592

#### Manitoba Public Insurance

#### Multi-year Statements

For the Years Ended February,

2015/16 - 0% Rate Increase with risk based interest rate forecasting methodology

(C\$ 000s, except where noted) For the Years Ended February, 2014A 2015F 2016P 2017P 2018P 2019P **BASIC** Motor Vehicles 756,642 795,233 830.811 867,985 906,707 947,065 Drivers 41,520 46,992 51,284 55,427 59,418 62,982 Reinsurance Ceded (13,422)(13,661)(13,934)(14,213)(14,497)(14,787)Total Net Premiums Written 784.740 828,564 868,161 909,199 951,628 995,260 Net Premiums Earned Motor Vehicles 741,077 769,872 814,090 850,513 888,508 928,097 Drivers 37,015 44,330 61,201 49,138 53,355 57,422 Reinsurance Ceded (13,422)(13,722)(13,934)(14,213)(14,497)(14,787)Total Net Premiums Earned 800,480 849,293 889,656 974,511 764,670 931,433 Service Fees & Other Revenues 20,384 19,799 21,079 22,622 24,463 26,561 **Total Earned Revenues** 785,053 820,279 870,372 912,278 955,896 1,001,072 Net Claims Incurred 747,435 662,618 693,022 740,128 767,358 822,745 Claims Expense 114,552 116,249 126,258 120,612 127,687 138,715 Road Safety/Loss Prevention 12,816 11,350 10,525 10,587 10,640 10,683 **Total Claims Costs** 790,217 824,159 876,972 972,143 874,803 905,685 **Expenses** Operating 67,982 73,568 74,861 79,207 81,264 87,526 37,952 Commissions 32,057 33,496 33,772 35,016 36,455 23,342 24,426 25,897 27,116 28,378 29,679 Premium Tax es Regulatory/Appeal 3,766 3,261 3,315 3,380 3,447 3,516 **Total Expenses** 127,147 134,751 137,844 144,719 149,544 158,673 Underwriting Income (Loss) (104,690)(91,631)(109,413)(99,332)(129,744)(216,897)Investment Income 147,735 50,025 60,422 86,321 76,620 107,264 Net Income (Loss) from Operations (69, 162)(54,665)(31,209)(23,092)(22,713)(22,480)

## Manitoba Public Insurance Multi-year Statements - Balance Sheet

C\$ 000s, except where noted)	For the Years Ended February,					
	<u>2014A</u>	<u>2015P</u>	<u>2016P</u>	<u>2017P</u>	<u>2018P</u>	2019P
BASIC						
Assets						
Cash and investments	1,424,341	1,330,940	1,270,810	1,340,727	1,348,900	1,418,253
Equity investments	600,483	620,147	697,518	666,460	705,442	707,318
Investment property	32,226	31,201	30,856	30,525	30,218	29,964
Due from other insurance companies	1,755	-	-	-	-	-
Accounts receivable	235,616	249,289	259,908	270,859	282,150	293,761
Prepaid expenses	731	568	568	568	568	568
Deferred policy acquisition costs	-	-	-	-	-	-
Reinsurers' share of unearned premiums	-	-	-	-	-	-
Reinsurers' share of unearned claims	17,625	-	-	-	-	-
Property and equipment	80,108	85,033	85,517	83,746	82,549	80,948
Deferred development costs	54,685	70,701	81,714	86,063	90,579	77,606
	2,447,570	2,387,880	2,426,890	2,478,949	2,540,406	2,608,418
iabilities						
Due to other insurance companies						
Accounts payable and accrued liabilites	1,213	1,596	1,596	1,596	1,596	1,596
Financing lease obligation	35,769	35,673	37,193	38,760	40,376	42,037
Unearned premiums and fees	2,841	3,079	3,020	2,956	2,887	2,814
Provision for employee current benefits	402,982	438,580	460,670	483,690	507,635	532,431
Provision for employee future benefits	15,389	16,544	17,653	18,782	19,931	21,103
Provision for unpaid claims	235,172	249,058	262,114	276,474	291,389	306,958
	1,584,042	1,527,234	1,552,731	1,593,629	1,627,612	1,680,818
Equity	2,277,408	2,271,765	2,334,977	2,415,887	2,491,426	2,587,758
Retained earnings						
Basic Insurance Retained Earnings						
Rate Stabilization Reserve						
Retained Earnings	99,878	45,213	14,004	(9,088)	(31,800)	(54,281)
Information Technology Optimization Fund	-	-	-	-	-	-
	99,878	45,213	14,004	(9,088)	(31,800)	(54,281
Accumulated Other Comprehensive Income	70,284	70,902	77,909	72,149	80,780	74,941
otal Equity	170,162	116,115	91,913	63,061	48,980	20,660
	2,447,570	2,387,880	2,426,890	2,478,949	2,540,406	2,608,418





## Manitoba Public Insurance Statement of Retained Earnings

2015/16 - 0% Rate Increase with risk based	interest rate forecasting methodology							
(C\$ 000s, except where noted)			For the Years Ended February,					
		<u>2014A</u>	<u>2015P</u>	<u>2016P</u>	<u>2017P</u>	<u>2018P</u>	<u>2019P</u>	
RATE STABILIZATION RESERVE (RSR)								
Basic Insurance Rate Stabiliza	ation Reserve							
	Beginning Balance	149,800	99,878	45,213	14,004	(9,088)	(31,800)	
	Transfer from (to) Basic Retained Earnings	(49,922)	(54,665)	(31,209)	(23,092)	(22,713)	(22,480)	
	Ending Balance	99,878	45,213	14,004	(9,088)	(31,800)	(54,281)	
	Minimum RSR based on PUB rules	78,500	82,900	86,900	91,000	95,300	99,700	
	Maximum RSR based on PUB rules	156,900	165,600	173,500	181,700	190,200	198,900	
	MPI RSR Target	172,000	194,000	194,000	194,000	194,000	194,000	
Retained Earnings								
	Beginning Balance	19,240	-	-	-	-	-	
	Net Income (Loss) from annual operations	(69,162)	(54,665)	(31,209)	(23,092)	(22,713)	(22,480)	
	Retained Earnings Prior to Transfers	(49,922)	(54,665)	(31,209)	(23,092)	(22,713)	(22,480)	
	Transfer from (to) Rate Stabilization Reserve	49,922	54,665	31,209	23,092	22,713	22,480	
	Balance of Fund	-	-	-	-	-	-	
Total Basic Retained Earnings	<b>S</b>	\$ 99,878 \$	45,213 \$	14,004 \$	(9,088) \$	(31,800) \$	(54,281)	

July 31, 2014 Page 3

CAC (MPI) 1-156 Reference: Volume II Pro Formas

Please prepare a Pro Forma Income Statement and Statement of Retained Earnings for 2016 and 2017 accounting for the 2.4% rate increase and the 1% RSR rebuild fee separately. For example, the headings for the 2016 Income Statement would be as follows:

Income Statement 2016P						
	Base (0% rate change)	2.4% rate change	1% RSR rebuild fee	Total		
Basic						
Motor Vehicles						
Etc.						

#### **RESPONSE:**

Please refer to PUB (MPI) 1-4 a).

# CAC (MPI) 1-157 Reference: Volume II Pro Formas Balance Sheet page 4.

- a) Please explain and provide the rationale for the following:
  - (i) There are no values from 2015P to 2019P for Due from other insurance companies.
  - (ii) There are no values from 2014A to 2019P for deferred policy acquisition costs.
  - (iii) There are no values from 2014A to 2019P for Reinsurers' share of unearned claims.
  - (iv) There are no values from 2015P to 2019P for Reinsurers' share of unearned (unpaid) claims.
- b) The Provision for unpaid claims decreased by \$94,650,000 from 2014A of \$1,584,042,000 to \$1,489,392,000 projected for 2015P. Please provide the reasons for this decrease.

#### **RESPONSE:**

a) (i) Amounts due from other insurance companies arise from losses that have been reinsured and the paid losses exceed the retention limit. Reinsured losses are large natural catastrophes (e.g. hail event) or severe accidents with large bodily injury losses. As per page 43 of Volume II, Claims Incurred, section CI.5, the Corporation forecasts hail losses based on the historical claims incurred *net* of reinsurance recoveries and then charges customers the cost of the catastrophe reinsurance premiums as part of the Basic rate. For casualty reinsurance, the Corporation's \$5 million retention makes it highly unlikely that paid losses from such claims will exceed retention. Older casualty treaty years have been commuted or will be by year end 2016.

- (ii) Deferrals of policy acquisition expenses were not included in the forecast because this treatment of expenses is not compatible with rate level assessments. Similarly, premium deficiencies were also excluded.
- (iii) The reinsurance treaties are coincident with the Corporation's fiscal year. Therefore, all reinsured written premium is earned during the fiscal year.
- (iv) Automobile liability claims are most likely to result in ceded reserves. As mentioned in the answer to (i), reinsurance retention limits increased in 2006 to \$5 million for casualty treaties. There is a very low likelihood that the total incurred losses for any one claim will exceed \$5 million. The Corporation recently commuted treaty years 1995 to 2002, so the ceded reserves for these years have been extinguished. The Corporation plans to commute treaty years 2003 and 2004 before the end of fiscal year 2015. This would leave only 2005 to be commuted by year end 2016.
- b) The reduction in unpaid claims is primarily the result of the forecasted increase in interest rates. The claims discount rate is derived from the yields on fixed income securities. When these yields increase, the claims discount rate increases and reduces the present value of the claims liabilities.

## CAC (MPI) 1-158 Reference: Application section page 3

Preamble: On page 3 of the Application section it states that "A range above the recommended minimum RSR target (based on the minimum DCAT amount) with the upper range based on a 100% MCT value" is requested. Reliance on the MCT to set the RSR is a change from the recommendation in the 2014 rate application.

Please give the Corporations rationale for the change this year.

#### **RESPONSE:**

The Corporation's rationale for this change is described in detail in the Minimum Capital section of Volume II Rate Stabilization Reserve, RSR.1, pages 9 to 11.

CAC (MPI) 1-159 Reference: MCT and DCAT

Please advise if there any revisions to the Minimum Capital Test and Dynamic Capital Adequacy Test guidelines in 2013/14. If there are any revisions please file a copy of the updated guideline(s) and explain the financial impact of these revisions relative to basic insurance.

#### **RESPONSE:**

There were no changes to the Minimum Capital Test (MCT) for the February 2014 year end. The latest MCT guidelines were for year ends ending after January 1, 2013 and have remained in effect during 2014. Please refer to the Office of the Superintendent of Financial Institutions (OSFI) website for guidelines.

There were no changes to the Dynamic Capital Adequacy Testing (DCAT) guidelines that materially impacted the Basic DCAT report. The Canadian Actuarial Standards of Practice and the latest guidance material on DCAT reports are available on the Canadian Institute of Actuaries website at <a href="http://www.cia-ica.ca/publications">http://www.cia-ica.ca/publications</a>.

### CAC (MPI) 1-160 Reference: RSR.1 page 3

- a) The Corporation is suggesting that the RSR target be \$194 million in retained earnings based on the DCAT with a maximum RSR target equal to the MCT ratio of 100%, which is \$323 million.
  - (i) This suggests that the Corporation is asking that no rebates be approved by the PUB until the RSR is over \$323 million. Please confirm this.
  - (ii) Given that the corporation is a Crown Corporation with the backing of the Provincial Government and given that it is a monopoly that can raise its rates if a once in 40 year event does occur, please explain that it is appropriate that the corporation hold between \$194 and \$323 million of the Manitoba taxpayers money to protect itself from this rare event. If yes, please explain.
- b) With reference to page 27 of the DCAT report the Corporation has "assumed that the maximum combined rate increase and/or additional RSR rebuilding fee in a given rate application is 5.0%"
  - (i) Has the question been put before the Board what the maximum rate increase would be if the most adverse 1 in 20 year event did, in fact, occur? If so, please give a reference for this discussion. If not, why not?
- c) With reference to page 42 of the 2014 DCAT report the Corporation is suggesting interest rate decline scenarios based on historical data from 1956 to present. An inflation-control target was adopted by the Bank and the Government of Canada in 1991 and has been renewed five times since then, most recently in November 2011 for the five years to the end of 2016. The target aims to keep total CPI inflation at the 2 per cent midpoint of a target range of 1 to 3 per cent over the medium term. The Bank raises or lowers its policy interest rate as appropriate, in order to achieve the target.

- (i) Given this information how does the Corporation justify using data from 1956 to present to determine the 1 in 40 year interest rate decline scenarios?
- (ii) Would the data from 1992 to present not be a more accurate representation of the possibilities going forward?
- d) With reference to page 26 of the 2014 DCAT report:
  - (i) Please provide the tables given on this page at a 1 in 20 year probability level for the adverse events.
  - (ii) Please provide the tables given assuming a 10% rate increase in rates was approved for the 2016/17 year.
- e) With reference to page 48 of the 2014 DCAT report it states that "Our simulation assumes that undiscounted claims are independent of interest rate and equity returns." Would it not be more appropriate to assume that inflation changes would be correlated with interest rate changes and that these inflation rate changes would impact undiscounted claims?
- f) In regards to the Combined Scenario described on page 48 of the 2014 DCAT report
  - (i) Please give justification for the selection of this particular scenario.
  - (ii) Was research done into standard actuarial practice across the Canadian P&C industry to determine what other companies use as their Combined Scenario in the DCAT report? If so, please provide this research. If not, why not?
- g) In regards to the Decline in Equity Markets scenario described on page 29 of the 2014 DCAT report:

(i) Would the Corporation agree that after a drop in the equity market there is a rebound within two years following the drop? If so, has this been considered and modeled? If not, please provide justification for the disagreement.

#### **RESPONSE:**

#### a) Part (i):

The Corporation is proposing that (i) the Board approve the DCAT indication as the minimum capital target and (ii) the Board approve the 100% MCT as an upper target. The proposed capital 'range' was selected to be large enough for the Basic program to withstand a reasonable level of volatility (i.e. rate stability) without constantly falling below or above the established range. Also, the upper 100% MCT target was proposed by the Corporation because it is a highly objective measure that the Board can utilize for comparing Basic capital requirements to other Canadian P&C insurers and Crown Corporation insurers. The Corporation would not anticipate applying for a rebate if the actual RSR balance was between the lower and upper target.

#### Part (ii)

The Corporation has worked collaboratively with the Board and the Consumers Association of Canada (CAC) to develop a risk-based minimum capital target (i.e. the DCAT) that is appropriate for the Manitoba Public Insurance Basic compulsory line of business. The CAC has had the opportunity to be an active part of this process at both the rate hearings and the DCAT Technical Conference. Over the past several years, the Corporation has revised its DCAT report to make the financial modeling, adverse scenarios, risk tolerance levels, and assumed management and regulatory actions to be as realistic as possible. In some cases, the Corporation has utilized direct recommendations from the CAC advisors (e.g. equity decline scenario assumptions). The CAC is also aware that the current and past DCAT based capital targets are much lower than those utilized by other public insurers like Saskatchewan Government Insurance (SGI) or the Insurance

Corporation of British Columbia (ICBC), whom both use an MCT based target, and significantly lower than the capital target used by private insurance companies.

It is the Corporation's opinion that the DCAT report reflects the appropriate minimum capital amount for the Basic program. The recommended capital range is required to provide rate stability to Manitobans and operate the Corporation in a fiscally responsible manner.

b) The Corporation did not have direct discussions with the Board on this specific topic. The assumptions used by the Chief Actuary were based on historical Board Orders and discussions with MPI Management. However, the 2013 DCAT made similar assumptions on the level of management and regulatory action (e.g. maximum RSR rebuilding fee of 2.0% was used), which was discussed at the 2013 hearings.

#### c) Part (i):

One of the purposes of DCAT is to identify plausible threats to satisfactory financial condition. Twenty-two years of data from 1992 to 2013 is not a significant period of time. While inflation has remained mostly within the 1 to 3 percent bandwidth, it is not out of the realm of plausibility that severe global economic shocks due to an energy crisis or war could cause shocks to inflation, interest rates and/or equity returns.

The period from 1956 to present was chosen in order to match the same data period as the equity decline scenario. This time period from 1956 to present was based on conversations at the April 2013 DCAT technical conference.

#### Part (ii):

No. Please see part i) of this question for further explanation.

d) Part (i) The requested information is available in the tables supporting each individual DCAT scenario



Part (ii) The Corporation does not understand the rationale for the request, how a 10% rate increase would be considered a plausible management or regulatory action, or how the request meets the stated purpose of the RSR? If the DCAT report were to assume that a 10% rate increase was appropriate every time a significant financial event occurred, then clearly the indicated DCAT target would decrease. The purpose of the DCAT scenarios is to assess the financial outcomes from *plausible* adverse scenarios and *plausible* management and regulatory action.

- e) We have assumed that the forecasted long term rate of inflation (used to calculate the long term real discount rate) would remain constant regardless of short term inflation variability.
- f) Part (i): The justification for the Combined Scenario, along with all the individual adverse scenarios that make-up the Combined Scenario, are provided in detail in the DCAT report (RSR.2).
  - Part (ii): DCAT reports from other insurers are generally confidential. However, as part of the collaborative DCAT review process the Corporation would be open to reviewing any DCAT reports that are available to the PUB Actuary and the CAC Actuary if they are not confidential.

The Corporation has internal experts that have a deep understanding of the risks facing the Basic program and who are committed to operating the Basic program in a fiscally responsive manner on behalf of the ratepayers of Manitoba. The Corporation has openly shared the methods used by these experts in the modeling of the base scenario and DCAT adverse scenarios and has openly accepted feedback from the PUB and CAC on how to improve these methods.

g) Yes. The modeling of the equity decline scenarios over multi-year periods (including 'rebounds' after a significant equity decline) are clearly described in the DCAT report. CAC (MPI) 1-161 Reference: 2014 DCAT Report

June 27, p.13

Preamble: "The loss was caused mainly from net claims incurred, which was \$104 million over budget. A summary of the main impacts are as follows:

Adverse winter driving conditions resulted in approximately 3.0% more collision and property damage claims than expected in the forecast. **Impact = (\$16 million).** 

Physical damage claims severity increased by 10% over the previous year mainly as a result of (i) new labour and material agreements with body shops, (ii) the 1% Provincial Sales Tax increase, (iii) and higher total loss settlement values. **Impact =** (\$24 million).

A comprehensive review of existing injury claims that resulted in a significant increase in loss reserves for prior years' claims. **Impact (net of interest rate adjustments) = (\$26 million)...**"

- a) Please explain whether the "comprehensive review of existing injury claims" is a regular (e.g. annual) occurrence.
- b) In terms of the high-loss scenario, what specific items on p.13 are considered. In particular, is the item related to the "comprehensive review of existing injury claims" considered?
- c) In view of the fact that the winter weather of 2013-14 was the worst (coldest) on record in a century, how does the claims loss compare to historical claims losses in terms of the high-loss scenario, i.e. is it a 1-in-100 year for claims losses?

#### **RESPONSE:**

a) The comprehensive review of existing injury claims was completed as a result of a particular issue identified in the October 2012 Appointed Actuary's report.

Therefore, updating all injury claims in this manner, along with the magnitude of this adjustment, are not considered a regular occurrence. The Injury Claims Management division has rectified this issue and going forward all case reserves will be maintained based on established reserving guidelines.

- b) The high loss ratio scenario simulation can be considered a simulation of the variability of projected ultimate claims cost around the best estimate forecast based on the historical variability of Basic claims. This simulation would not predict any operational risks to claims costs (e.g. systems, processes, etc). Such operational risks are an example of risk factors that are 'not easily quantifiable' (per page 14, recommendation #3 of the 2014 DCAT report).
- c) Per page 36 of Volume II Claims Incurred, section CI.4, ultimate collision costs in 2013/14 are estimated to be \$31.6 million (or +10.0%) over budget. Per the stochastic modeling results in the DCAT report (pages 74 and 75); the Corporation's modeling predicts that the 95<sup>th</sup> percentile of ultimate collision claims in a given year is approximately 10.6% higher than the 50<sup>th</sup> percentile. Therefore, the Corporation estimates that the observed collision experience would occur about 1 in every 20 years, or 5% of the time.

CAC (MPI) 1-162 Reference: 2014 DCAT Report

June 27, p.14,

**Recommendations** 

Preamble: "If there is a significant increase in projected claims costs, management should be prepared to increase rates as quickly as possible"

- a) Please explain how this recommendation provides a role for the RSR to stabilize rates
- b) Please explain how a "significant increase in projected claims costs" would be determined. In particular, what data and methodology would be used to distinguish between trend growth in real (above inflation) claims costs and fluctuations about this trend (volatility)?

- a) By reacting quickly to an increase in projected claims costs, the Corporation can:
  - Limit the impact to the RSR from inadequate rates
  - Prevent relatively minor increases in rates from accumulating into more significant rate increases.
- b) The Corporation would continue to update its best estimate claims forecast every year as part of the GRA. The Corporation would employ the same techniques as it does today to determine whether a significant increase in claims costs is a permanent increase or simply variation around the historical trend line. For example, the significant increase in collision frequency in 2013/14 was determined to not be a permanent increase based on the behaviour of the non-winter collision frequency (which was below budget).

CAC (MPI) 1-163 Reference: 2014 DCAT Report

June 27, p.26

Preamble: "A summary of the projected Retained Earnings, Total Equity, and MCT scores for the selected plausible adverse scenarios (including management and regulatory action) are shown in the table below. The adverse scenarios listed below are considered to have the most significant financial impact to the Corporation's financial position."

- a) Please explain what risk tolerance level (1%, 2.5% or 5%) was used for these calculations.
- b) What criteria for a monopoly crown corporation have been used to select this risk tolerance level as the most appropriate to present here?

#### **RESPONSE:**

- a) 2.5% (or 1-in-40).
- b) The risk tolerance level was judgmentally selected by the Corporation's Chief Actuary. It is the Chief Actuary's opinion that the 1-in-40 risk tolerance is appropriate for a monopoly public automobile insurer, especially given that the Basic DCAT report already considers the unique management and regulatory action options available for the Basic program. It is also evident that the selected risk tolerance level is lower than that used by other insurers, as the proposed DCAT minimum target ranks significantly below the results produced based on a 100% MCT score (which is the basis for the minimum capital targets of other P&C insurers in Canada, including SGI and ICBC).

The DCAT report also provides results at multiple risk tolerance levels in order for the Board to be informed on the results at various tolerance levels. CAC (MPI) 1-164 Reference: 2014 DCAT Report

June 27, pp.29-30

Preamble: "Based on the historical results above, the Corporation's selected equity decline scenarios are based on fitted distributions that best represent the historical data. The assumptions are shown as total return in the table [Selected Adverse Scenarios by Percentile and Return Period (Cumulative)] below."

- a) Would MPI agree that these results are evidence that 1 and 2 year equity declines are followed by recovery in equity values, or rebound, in years 3 and 4?
- b) Is the rebound behavior of equities after declines of 1 or 2 years analyzed and incorporated into the high-loss and combined adverse scenarios?

- a) Yes. The Chief Actuary has recognized that this relationship exists and clearly states this assumption in the DCAT report:
  - Page 31: 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.
- b) Yes, the purpose of modeling separate distributions for 1, 2, 3, and 4 year cumulative equity returns is to specifically address the issue that year-to-year equity returns are not independent.

CAC (MPI) 1-165 Reference: 2014 DCAT Report

June 27, p.30

Preamble: "In calendar year 2008 and 2009, the Canadian equity turnover ratio was 31% and 16% respectively based on the current composition of the Canadian equity managers. The base Canadian equity turnover ratio was 20%, which was based on the 5 year average of the turnover ratio. Therefore, for DCAT modeling purposes, it is assumed that Canadian equity unrealized gains/losses are realized at 20% per year."

- a) Please explain whether MPI has investigated the factors that determine the substantial variation in equity turnover over time.
- b) Please explain whether MPI has investigated the role of market values in determining equity turnover. In particular, is there a positive statistical relationship between movements in equity values and equity turnover such that periods of equity decline are associated with lower equity turnover (i.e. lower than 20% per year)?

- a) Yes, the Corporation is aware of the factors that can determine the variation in equity turnover. Manager A, B, and C's annual turnover ratios were within +/0.16 around the average 0.20 Canadian equity turnover ratio with two exceptions in 2013. The Corporation is aware of the factors that caused the turnover to be higher for these two exceptions.
- b) There are not enough data points with the Corporation's managers to determine if there is a positive statistical relationship between movements in equity values and equity turnover. The five year average turnover used takes into account the equity decline in 2009. As shown at the bottom on Table 5.6.1 of Volume II Investment Income, the seven year average turnover of 22.5% includes the

decline in 2008, and the seven year average is not significantly different than the five year average.

CAC (MPI) 1-166 Reference: 2014 DCAT Report

June 27, p.31

Preamble: "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."

- a) Please explain whether this statement refers to the rebound behavior of equity values after large declines.
- b) Please explain whether this rebound behavior has been captured in the equity decline and combined scenarios.

- a) Yes, the statement refers to this behaviour. See CAC (MPI) 1-164.
- b) Yes, this behaviour has been captured in these scenarios. See CAC (MPI) 1-164.

CAC (MPI) 1-167 Reference: 2014 DCAT Report

June 27, pp.32-33

Preamble: "We selected the two year equity decline scenario to run through the financial model. The results for this scenario are shown in the table below and in Exhibit 2a to 2g."

- a) Please explain what is assumed about the recovery (rebound) of equity values in years 3 and 4 in this scenario.
- b) Please explain how the assumed behavior of equity values in years 3 and 4 is determined with respect to the historical data on equity declines over 3 and 4 years.

- a) The base scenario total equity return assumptions are used in years 3 and 4 of this scenario, which is why the report indicates that the results should not be used beyond the first two years. The Chief Actuary must determine the most significant plausible adverse events at all stages of the Corporation's forecast period.
- b) The assumed behaviour of equities for 3 and 4 year periods is modeled based on the historical results of the cumulative equity return over 3 and 4 year periods. This information is provided in the scenario justification for the Equity Decline scenario of the DCAT report (Volume II RSR.2 pages 29-30)

CAC (MPI) 1-168 Reference: 2014 DCAT Report

June 27, pp.49

Preamble: "The correlation metrics from 1956-to-present and from 2004-to-present are provided below. [Correlation between Equity Returns and Interest Rate Movements]"

Please explain whether the correlations in this table are statistically significantly different from zero.

#### **RESPONSE:**

#### **Correlation between Equity Returns and Interest Rate Movements**

	2004 to Present	1956 to Present
1-Year	0.28	-0.12
2-Year	0.09	0.03
3-Year	-0.23	0.04
4-Year	-0.13	0.05

Correlation coefficients in **bold** are statistically significantly different from 0 with an assumed Type 1 error of 0.05.

#### CAC (MPI) 1-169

Reference: 2014 DCAT Report June 27, p. 60 (Appendix A: Stochastic Modeling)

Preamble: "In Board Order 122/10 the Public Utilities Board ordered the following: 'MPI shall use stochastic modeling of claims incurred for rate-setting purposes'."

- a) Would MPI agree that stochastic modeling can also be extended to the assessment of the adequacy of a given RSR and would be a useful tool in this regard
- b) Please indicate if any steps have been taken to use stochastic modeling to simulate a probability distribution for retained earnings under specified adverse conditions as the basis for assessing the adequacy of specified levels of the RSR in probabilistic terms.

#### **RESPONSE:**

(a) and (b)

The description in part (b) is essentially the purpose of the DCAT report. See Volume II RSR, section RSR.2 for the simulated probability distributions of retained earnings and total equity under specified adverse conditions at selected probability levels. The DCAT analysis is used to assess the adequacy of the RSR, which results in the minimum capital recommendations presented in the report.

CAC (MPI) 1-170 Reference: 2014 DCAT Report

June 27, p. 61

Preamble: "Stochastic modeling of claims incurred cannot be used 'for rate setting purposes' as the Corporation still requires a fixed best estimate forecast for setting rates.."

Please explain how the "fixed best estimate" would differ from the mean of the claims incurred probability distribution determined in the process of stochastic modeling.

#### **RESPONSE:**

Regardless of how the forecast is calculated (e.g., stochastic model, five year average, judgment), the Corporation still must put forward its best estimate forecast to the Board for approval of Basic rates (i.e. the Board needs to approve a fixed overall rate change for Basic). Stochastic modeling, as used extensively in the DCAT analysis, provides the Board with information as to the expected variability around the best estimate forecast. This expected variability is the basis for the Corporation's proposed RSR and Total Equity targets in the DCAT report.

The mean of the stochastic model is generally very close to the best estimate forecast; however, there are often considerations in the Corporation's forecasts that result in different trends than those predicted by a stochastic model based purely on historical data (e.g. the Corporation expects future collision severity growth to be higher than historical averages; the Corporation gives more weight to recent hail experience).

CAC (MPI) 1-171 Reference: 2014 DCAT Report

June 27, p. 84

Preamble: Cumulative Simulated Ultimate Losses % Deviation from Base Forecast – All Basic Coverages

Please explain whether the decline in ultimate loss % in this table is indicative of a rebound or mean reversion pattern in claims losses that would at least partially rebuild the RSR in the absence of management action and the imposition of RSR rebuilding surcharges

#### **RESPONSE:**

Since the Corporation's claims cost simulation assumes independence in the variability of loss costs between accident years, there is a mean reversion pattern that emerges as more loss years are simulated. A simulation that assumes some positive correlation between loss years would produce a greater range of variability around the best estimate forecast.

The Corporation recognizes that there is variability around the best estimate claims forecast and that this variability can result in favourable or unfavourable outcomes purely by chance.

CAC (MPI) 1-172 Reference: DCAT Report page 5 and Exhibit 1a to 1f

Preamble: "..we have restated the base forecast (as provided by the Corporation to the Public Utilities Board in the 2015/16 General Rate Application) to more accurately reflect the forecasted changes to future premium deficiencies and deferred policy acquisition cost write-downs."

- a) Please elaborate as to which base financial statements should be consider and reviewed in the 2015 GRA—the financial statements presented in Volume II in the Pro Formas section or the "more accurately" prepared financial statements presented as Exhibits1a to 1g in the 2014 DCAT report.
- b) For the record, please review the headings on Exhibits 1a to 1f in the 2014 DCAT report and, if necessary, re-filed them with the correct headings.
- c) Please reconcile the Original Base Scenario net income for years 2014/15 through to 2018/19 on page 5 of the 2014 DCAT report to the net income line, for the same years, on page 3 of Volume II in the Pro Formas section and explain the differences.

- a) See PUB (MPI) 1-107.
- b) The Corporation did not identify any errors with the exhibit headings.
- c) The only difference in assumptions between the two scenarios is the change in the premium deficiency and DPAC write-down calculation as shown in Exhibit 1f of the DCAT report (RSR.2).

CAC (MPI) 1-173 Reference: DCAT Report page 13

Preamble: "A comprehensive review of existing injury claims that resulted in a significant increase in loss reserves for prior years' claims. Impact (net of interest rate adjustments) = (\$26 million)."

Please elaborate on the corresponding offset in IBNR reserves of about \$26 million and provide the reference in the 2015 GRA.

#### **RESPONSE:**

The referenced information is a summary of the PIPP 2013/14 fiscal year claims incurred experience relative to forecast. The main cause of the \$26 million deviation from forecast was the "comprehensive review of existing injury claims that resulted in a significant increase in loss reserves for prior years' claims". The impacts to the 2013/14 fiscal year claims incurred by coverage are provided in Volume II Claims Incurred (CI) in the rate application.

## CAC (MPI) 1-174 Reference: DCAT Report page 14

Preamble: "The Regulator should consider the balance of funds in both the RSR and Total Equity before making decisions on future rebates or RSR rebuilding fees."

Please elaborate on the circumstances, if any, the Regulator should consider the excess retained earnings of non-basic lines of business in approving rate changes, setting RSR levels and approving RSR rebuilding fees for basic insurance.

#### **RESPONSE:**

Refer to Volume I CEO Pre-Filed Testimony, page 8.

CAC (MPI) 1-175 Reference: DCAT Report page 14

Preamble: "Establish a range above the recommended minimum capital targets...A range could also protect the Basic program from other risk factors that are not easily quantifiable. Management should continue to monitor other important risk factors such as inflation, policy liability risk, and changes to International Financial Reporting Standards (IFRS)."

In addition to inflation, policy liability risk and changes to IFRS, please elaborate on the other risk factors contemplated that may not be easily quantifiable.

#### **RESPONSE:**

In general, the statistical modeling utilized in the DCAT report relies on the historical behavior of key risk variables (e.g. equity returns, interest rates, claims costs). However, there may be cases when one-time operational, system, strategic, economic, or other risks result in deviations to the Corporation's forecasts that are not (and cannot) be predicted by historical patterns. The Corporation's recommended minimum DCAT target does not provide a 'load' for these other operational-type risks.

CAC (MPI) 1-176 Reference: DCAT Report page 17

Preamble: Risk Control and Financial Forecasting Department

Please elaborate on the expertise brought to the table by staff members of the Risk Control and Financial Forecasting Department.

#### **RESPONSE:**

CAC (MPI) 1-177 Reference: DCAT Report page 11 and

59 and Volume III AI.6

Part 1A page 7

Preamble: IAS 19 Employee Benefits. "The impact of this change was an increase in the balance in the Basic Rate Stabilization reserve of \$27.6 million to \$99.9 million as at February 28, 2014.

- a) Please confirm that the total impact of \$27.6 million for basic insurance of IAS 19 relates to fiscal year 2012/13 (\$18,460,000) and 2013/14 (\$9,110,000).
- b) Please confirm that the financial impact of IAS 19 was to move pension actuarial gains and losses from the operational income statement impacting net income (loss) to Other Comprehensive Income impacting Total Comprehensive Income (Loss) and had zero impact on the net equity of the basic insurance operations.
- c) Please confirm that the MPI' actuary includes Accumulated Other Comprehensive Income in the conditions required to achieve satisfactory financial condition for basic insurance.

#### **RESPONSE:**

- a) Confirmed.
- b) Confirmed, no impact on Total Equity on the Statement of Financial Position.
- c) Confirmed.

CAC (MPI) 1-178 Reference: Volume II RSR.1 page 9

and Volume III AI.6

Part 1A page 1

Preamble: The difference between Retained Earnings (RSR) and Total Equity.

a) Please confirm that the difference between Retained Earnings (RSR) and Total Equity is Accumulated Other Comprehensive Income (AOCI).

b) Please confirm that AOCI consists of the sum of the net unrealized gain or loss on financial assets classified as available for sale (AFS) and net actuarial gain or loss on employee future benefits and amounts to \$70.3 million, for basic insurance, as at February 28, 2014.

- c) Please confirm that AFS assets consist of Cash and Short-term Investments, Other Investments and Equity Investments amounting to \$517.6 million, for basic insurance, as at February 28, 2014.
- d) Please confirm that the AFS assets are highly liquid (in other words they can be sold at any time).

#### **RESPONSE:**

- a) Confirmed. Please refer to page 3 of the Universal Compulsory Automobile Insurance Annual Financial Statements for the year ended February 28, 2014.
   (Volume III AI.6)
- b) Confirmed. Please refer to page 3 and Note 19 of the Universal Compulsory Automobile Insurance Annual Financial Statements for the year ended February 28, 2014. (Volume III AI.6)

- c) Confirmed. Please refer to Note 3 of the Universal Compulsory Automobile
   Insurance Annual Financial Statements for the year ended February 28, 2014.

   (Volume III AI.6)
- d) Most of the AFS assets are highly liquid, with the exception of the Other Investments, which are illiquid private equity investments.

### CAC (MPI) 1-179 Reference: Volume II RSR.1 page 3.

Preamble: "That the Board approve a minimum (lower) RSR target of \$194 million in retained earnings based on the results of the 2014 DCAT report. That the Board approve a minimum (lower) RSR target of \$213 million in total equity based on the results of the 2014 DCAT report."

Please elaborate on the proposed requirement for an RSR target for total equity.

#### **RESPONSE:**

See PUB (MPI) 1-85.

CAC (MPI) 1-180 Reference: Volume II RSR.3 Minimum
Capital Test page 2.

Please provide the detail amounts, by general ledger account, comprising the Balance Sheet Assets of \$136,945,000 as at February 28, 2014 compared to last year.

#### **RESPONSE:**

CAC (MPI) 1-181 Reference: Volume III AI.12

Benchmarking page 2.

Preamble: "An example of Application consolidation and standardization is the plan to move the management of physical damage claims to a standard claims management application that is currently in use for bodily injury claims."

- a) During the evaluation process for selecting a claims management system to handle physical damage claims, please elaborate on the various systems that were examined before deciding on the bodily injury claims system.
- b) Please file a copy of the evaluation analysis.

#### **RESPONSE:**

a) and b)

CAC (MPI) 1-182 Reference: Volume III AI.12

Benchmarking page 17.

Preamble: "Manitoba Public Insurance is using a higher proportion of contractors than either its peers or the Insurance Industry as a whole."

Please elaborate on MPI's IT strategy, going forward, as it relates to the use of contractors as opposed to using internal staff to implement and/or develop IT applications for MPI.

#### **RESPONSE:**

CAC (MPI) 1-183 Reference: Volume III AI.12

**Benchmarking Appendix 4** 

page 3.

Preamble: "Despite a 2.3% reduction in the IT to Company FTE ratio, MPI spent 8% more on Personnel and 9% more on Outsourcing and used 12% more contractors than Peers."

Please elaborate on MPI's IT strategy to contain the Personnel, Outsourcing and contractors costs relative to MPI's peers in light of MPI basic insurance being a monopoly.

#### **RESPONSE:**

CAC (MPI) 1-184 Reference: Volume III AI.12

**Benchmarking Appendix 4** 

page 4.

Preamble: "On average, over a 15 year lifecycle, only 8% of an application's lifecycle costs occur during Development, so as you increase the footprint, you increase the support base"

Please elaborate on the lifecycle costs vs. development costs of an IT application (for example, the PD Re-engineering program –Volume III Charters page 8—is budgeted to cost \$65.5 million. Does this mean that the life cycle cost for this program are expected to be \$819 million {\$65.5 million / 0.08} with annual projected savings of \$13.3 million for a payback period of 62 years {\$819 million / \$13.3 million?)

#### **RESPONSE:**

### CAC (MPI) 1-185

To review the **Basic Insurance allocation distribution** of various financial account values, please complete the following schedule and explain any significant differences year over year:

Account	2011/12 Actual	2012/13 Actual	2013/14 Actual	2014/15 Projected	2015/16 Projected	2016/17 Projected	2017/18 Projected
Basic Net Premiums Written	\$						
Basic % of Corporate Net Premiums Written							
Basic Net Premiums Earned	\$						
Basic % of Corporate Net Premiums Earned							
Basic Net Claims Incurred	\$						
Basic % of Corporate Net Claims Incurred							
Basic Claims Expense	\$						
Basic % of Corporate Claims Expense							
Basic Loss prevention/Road Safety	\$						
Basic % of Corporate Loss prevention/Road Safety							
Basic Operating expenses	\$						
Basic % of Corporate Operating expenses							
Basic Investment income	\$						
Basic % of Corporate Investment Income							

#### **RESPONSE:**

The allocation methodology for expenses is fully explained in Volume II Expenses, section E.3. Premium revenue and claims incurred are directly assigned; and therefore, not subject to allocation.

CAC (MPI) 1-186 Reference: Pre-Filed Testimony page 19

Preamble: "...I propose that we move from discussing road safety to discussing a comprehensive loss prevention strategy."

In general terms, please elaborate on the content of a comprehensive loss prevention plan for the Basic line of business.

#### **RESPONSE:**

### CAC (MPI) 1-187 Reference: SM.3 Road Safety page 13.

Preamble: The Road Safety department has been reorganized in 2013 and a new Road Safety Manager has been hired.

- a) Please file a copy of the new Road Safety organizational chart.
- b) Please file copies of curriculum vitae for the Road Safety manager and senior Road Safety staff.

#### **RESPONSE:**

a) and b)

### CAC (MPI) 1-188 Reference: SM.3 Road Safety page 14.

Preamble: Services of an external firm have been retained to assist in developing a formal process to review current road safety priorities and establish a three-year Road Safety Strategic Plan.

- a) Please file a copy of the Request for Proposal, Terms of Reference and service agreement relating to the external firm.
- b) Please indicate when the three-year Road Safety Strategic Plan will be completed and filed with the PUB.

#### **RESPONSE:**

a) and b)

### CAC (MPI) 1-189 Reference: SM.3 Road Safety page 22.

Preamble: "With respect to the High School Redevelopment project, project scoping is underway and the Corporation expects to finalize terms of reference for the multi-year redevelopment project and release of RFP by the fall of 2014."

- a) In general terms, please describe the project scoping completed to-date.
- b) Please file a copy of the RFP when released in fall with the PUB.

#### **RESPONSE:**

a) and b)

### CAC (MPI) 1-190 Reference: SM.3 Road Safety page 26.

Preamble: "These maps demonstrate that motor vehicle collisions with vulnerable road users are broadly dispersed throughout Winnipeg and Brandon. Collision "hotspots" are generally associated to multi-lane intersections with high traffic volumes.....Other patterns are not readily apparent based on the broad dispersion of collision with vulnerable road users and the relative randomness of these occurrences. For this reason, the Corporation continues to focus its efforts primarily on broad public awareness campaigns aimed at educating both motorists and vulnerable road users on how to share the road safely."

- a) Please describe the methodology applied to conclude that "other patterns are not readily apparent based on the broad dispersion of collision with vulnerable road users and the relative randomness of these occurrences".
- b) Please reproduce the Map on page 1 and 2 of Attachment F enlarging and only highlighting occurrences on Portage Avenue. For reference please review the following open data video: <a href="http://youtu.be/War1pSs2LAM">http://youtu.be/War1pSs2LAM</a>.

#### **RESPONSE:**

a) and b)

CAC (MPI) 1-191 Reference: The Manitoba Public

**Insurance Corporation Act** 

(MPIC Act)

Please advise if there have been any amendments to the MPIC Act during 2014 relating to Road Safety or safety in general. If yes, please describe the amendments and the intent of the amendments.

#### **RESPONSE:**

Please see response to CAC (MPI) 1-2 a) and b).

CAC (MPI) 1-192 Reference: CAC (MPI) 1-55 from the

**2014 GRA** 

Please review CAC (MPI) 1-55 from last year's GRA and provide updated responses to a), b) and c) for 2013/14.

#### **RESPONSE:**

CAC (MPI) 1-193 Reference: PUB (MPI) 1-94 and

CAC (MPI) 1-56 from the

**2014 GRA** 

Please provide a five year comparative history of actual vs. budgeted expenditures by road safety and loss prevention program category. Please explain any significant differences between budget and actual expenditures.

#### **RESPONSE:**

CAC (MPI) 1-194 Reference: CAC (MPI) 1-57 from the

**2014 GRA** 

Please update the Inter-Jurisdictional Comparison for Casualty Rates table, included in the 2014 GRA, to current.

#### **RESPONSE:**

CAC (MPI) 1-195 Reference: CAC (MPI) 1-58 from the 2014 GRA

- a) Please update the Road Safety Expenses Basic Share table from the 2014 GRA to include 2013/14 actual, forecast for 2014/15, projected for 2015/16.
- b) Please explain any significant changes year over year.

#### **RESPONSE:**

- a) Refer to the attachment.
- b) The most significant changes through the projected period relate to Auto-Crime Prevention Strategies, and result from decreased costs related to the Immobilizer Incentive Program.

# Road Safety Expenses - Basic's Share (\$ in thousands)

2009/10 2010/11 2011/12 2012/13 2013/14 2014/15 2015/16 Actual **Actual** Actual Forecast Projected Actual Actual Driver Education and Improvement 2,929 3,006 3,444 3,102 3,200 3,520 3,605 Impaired Driving Prevention Strategies 419 445 806 877 932 1,090 1,115 Speed Management Strategies 280 391 313 330 357 297 305 293 Occupant Safety Education Strategies 424 269 357 123 325 333 Auto-Crime Prevention Strategies 15,522 7,772 5,023 4,190 4,007 2,509 1,444 Motorcycle Safety Education 104 96 106 108 67 105 108 Vulnerable Road User Education Strategies 112 163 240 135 255 215 221 Safety Programming Other 404 436 395 363 314 405 415 Safety Grants and Sponsorships 197 190 300 261 317 288 295 Road Safety Production and Advertising 205 290 371 347 466 356 365 **Program Evaluation** 203 74 140 103 5 18 18 Cell Phone/Distracted Driver Advertising 266 295 4 183 592 246 252 Other 53 57 29 Departmental Expenses 2,591 3,119 3,598 2,448 2,122 1,976 2,038 Road Safety Initiatives (Driver Ed /Infrastructure) 303 59 Total 23,578 16,758 15,038 13,107 12,816 11,350 10,514

#### CAC (MPI) 1-196

Reference: CAC (MPI) 1-48 from the 2014 GRA, Volume III AI.6 Part 2 page 17.

Preamble: Goal 7 states "Manitoba Public Insurance will lead driver and vehicle safety initiatives that reduce risk and protect Manitobans, on our streets and in their neighbourhoods. Manitobans will recognize the Corporation is living its mission". Strategy 7.1 states "To develop an evidence-based road safety strategy with an aim to reduce automobile collisions, using a multi-faceted approach".

- a) For fiscal years 2007/08 through 2013/14, please provide electronic copies of the annual province wide collision statistics reports available to MPI.
- b) Please provide any province-wide program monitoring and evaluation studies or plans that consider the effectiveness with which MPI and other partners currently operate and integrate their loss prevention programming.
- c) Please provide any published papers, conference proceedings that provide province-wide program overviews of loss prevention programs.

#### **RESPONSE:**

a) to c)

CAC (MPI) 1-197 Reference: Volume 3, AI.10 Charter – HSDE

Preamble: CAC MB is interested in the expected outcome from the High School Driver Education and Redevelopment Program. The Project Charter, on page 3, states the following:

"...The program provides a unique opportunity to shape the long-term driving behaviors of approximately 12,000 new teen drivers annually. This is critically important to improving road safety given that young drivers in Manitoba, as in other jurisdictions, are over-represented in fatal, serious injury, and property damage collisions"

Please consider vulnerable road users (VRU) as a group (composed of pedestrians, cyclists, motor cyclists, other un-protected victims) rather than listing the particular victim types.

- a) Please provide the statistical basis for the above statement.
- b) Please provide the statistical basis for young drivers being over-represented in fatal and serious injury collisions that involve vulnerable road users as victims.
- c) Please provide the age distribution of all drivers involved in fatal and serious injury collisions that involve vulnerable road users as victims.

#### **RESPONSE:**

a) to c)

CAC (MPI) 1-198 Reference: 2015 GRA, Volume 2,

Appendix D -

**Claims Incurred** 

Preamble: CAC MB is interested in the number of injury claims based on the severity (ICD10) of injury for those who are inside a motor vehicle ("MVA") and those in the class or group of persons who are external to a motor vehicle ("vulnerable road users").

Please consider vulnerable road users (VRU) as a group (composed of pedestrians, cyclists, motor cyclists, other un-protected victims) rather than listing the particular victim types.

Please provide the chart in Volume 2, Appendix D - Claims Incurred regarding PIPP Claims Statistics by Injury Type (ICD10) for number of claims, \$ Incurred, and Severity (\$) with clear distinction of victim type as motor vehicle occupants or vulnerable road users, for each year from 2010 to 2014.

#### **RESPONSE:**

CAC (MPI) 1-199 Reference: Traffic Collision Statistics
Report 2012

Preamble: CAC MB is interested in the contributing factors of drivers involved in traffic collisions for fatal and serious injuries and the distribution of the contributing factors when the victim is either a motor vehicle occupant or a vulnerable road user.

Please consider vulnerable road users (VRU) as a group (composed of pedestrians, cyclists, motor cyclists, other un-protected victims) rather than listing the particular victim types.

- a) Please refer to Table 9-7 of the 2012 Traffic Collision Statistics Report, titled "Historical Summary of Contributing Factors Recorded for Victims of Collisions". Please list the contributing factor and total victims by year, but with clear distinction of the victims as either motor vehicle occupants, vulnerable road users or unknown.
- b) Please refer to Table 9-9 of the 2012 Traffic Collision Statistics Report, titled "Summary of Speed, Distracted, and Impaired as Contributing Factors". Please make a clear distinction of the victims as motor vehicle occupants, vulnerable road users or unknown for each category of collisions, victims and driver involvement.

#### **RESPONSE:**

a) and b)

CAC (MPI) 1-200 Reference: CAC/Bike Winnipeg
(MPI) 1-1 2014 GRA

Preamble: CAC MB seeks to continue reviewing long term MPI fatality and serious injury data in a disaggregated fashion to better understand trends relating to fatalities and serious injuries. CAC MB wishes to review the distribution of these fatalities and serious injuries amongst different road users including drivers, passengers and different categories of vulnerable road users including pedestrians, cyclists and motorcyclists.

In the request below, a working definition for the terms current and ultimate is:

Current (Current Fiscal Year Claims Incurred):

Current fiscal year claims incurred represent the accumulation or sum of all changes in claims dollar activity (paid, reserves, recoveries, IBNR, etc.) for all previous Insurance Accident Years.

Ultimate (Ultimate Claims Incurred):

Ultimate claims incurred for a year represent the sum of the dollar activity expected/projected/developed to be incurred for a particular Insurance Accident Year (for example what will be the ultimate claims incurred for collision for the Insurance Accident Year for 2012/13).

Please complete the tables provided in **Attachment A**, with regard to the victim type and classifications for fatalities and serious injuries.

- 1) MPI Fatalities Count of Claims
- 2) MPI Serious Injuries Count of Claims
- 3) MPI Fatalities Cost Current value (\$000)
- 4) MPI Serious Injuries Cost Current value (\$000)



- 5) MPI data Fatalities -Cost per Claim (\$000)
- 6) MPI data Serious Injuries Cost per Claim (\$000)
- 7) MPI data Serious Injuries Ultimate value (\$000)
- 8) MPI Ratios Fatalities per Licensed Active Drivers
- 9) MPI Ratios Fatalities per Registered Vehicle (Commercial and Non-Commercial)
- 10) MPI Ratios Serious Injuries per Licensed Active Drivers
- MPI Ratios Serious Injuries per Registered Vehicle (Commercial and Non-Commercial)

Please provide the formal definition of "serious injury" as used in the above statistics and reconciled with the Traffic Collision Report. Has the definition of serious injury been amended since last year?

#### **RESPONSE:**

		Unknown ties /errors	Motor Vehic	cles	Vulnerable	Road Users	Calculated	Ratio			
Calendar Year	All Fatalities		Driver	Passe nger	Sub-total Vehicle Fatals	Motorcycle & Mopeds Fatalities	Pe ds	Cyclists	Sub Total VRU Fatals	Motor Vehicle s / All Fatals	VRU/All Fatals
2000											
2001									MANASH		
2002					Market Constitution of the						
2003											
2004											
2005											
2006											
2007											
2008											
2009											
2010											
2011											
2012											
2013											
2014											
YTD											
(June 30)		-					-				
Total 2000 -											
2014											
YTD											

			Motor Vehic	cles	Vulnerable F	Road Users			Calculated	Ratio	
Calendar Year	All Serious Injuries	Unknown /errors	Driver	Passe nger	Sub-total Vehicle Serious Injuriies	Motorcycle & Mopeds Fatalities	Pe ds	Cyclists	Sub Total VRU Serious Injuries	Motor Vehicle s / All Serious Injuries	VRU/All Serious Injuries
2000		-					-				
2001		-					-				
2002		-					-				
2003		-					-				
2004							-				
2005		-					-				
2006		-					-				
2007							-				
2008							-				
2009		-					-				
2010							-				
2011							-				
2012							-				
2013							-				
2014 YTD											
(June 30)											
Total 2000 - 2014 YTD											

July 31, 2014

2014 YTD

#### CAC (MPI) 1-200 Attachment A

#### Attachment A - MPI Claim and Cost Statistics 3. MPI Fatalities - Current Value (\$000) Motor Vehicles Vulnerable Road Users Calculated Ratio Motor Motorcycle Vehicle Calendar All Unknown Passe Sub-total & Mopeds Pe Sub Total s/All VRU/AII Year Fatalities /errors Driver Vehicle Fatals Fatalities ds **VRU Fatals** Cyclists Fatals Fatals nger 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 YTD (June 30) Total 2000 -

			Motor Vehi	cles	Vulnerable F	Road Users			Calculated	Ratio	
Calendar Year	All Serious Injuries	Unknown /errors	Driver	Passe nger	Sub-total Vehicle Serious Injuriies	Motorcycle & Mopeds Fatalities	Pe ds	Cyclists	Sub Total VRU Serious Injuries	Motor Vehicle s / All Serious Injuries	VRU/All Serious Injuries
2000											
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2002											
2003											
2004					Ribon Fried						
2005											
2006											
2007					Black of the						
2008											
2009											
2010											
2011											
2012											
2013											
2014											
YTD											
(June 30)											
Total 2000 - 2014											
2014 YTD											

		erious Unknown	Motor Vehi	cles	Vulnerable I	Road Users			Calculated	Ratio	
Calendar Year	All Serious Injuries		Driver	Passe nger	Sub-total Vehicle Fatals	Motorcycle & Mopeds Fatalities	Pe ds	Cyclists	Sub Total VRU Fatals	Motor Vehicle s / All Fatals	VRU/All Fatals
2000											
2001											
2002											
2003											
2004											
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2006									BEST TO BE		
2007											
2008					<b>在</b> 自然是 以 在 在 也				White the second		
2009									199-199		
2010											
2011					Market Land						
2012											
2013											
2014 YTD (June 30)											
Total 2000 - 2014 YTD											

	All Serious Injuries		Motor Vehi	cles	Vulnerable F	Road Users			Calculated	Ratio	
Calendar Year		Unknown /errors	Driver	Passe nger	Sub-total Vehicle Serious Injuriies	Motorcycle & Mopeds Fatalities	Pe ds	Cyclists	Sub Total VRU Serious Injuries	Motor Vehicle s / All Serious Injuries	VRU/All Serious Injuries
2000											
2001											
2002											
2003											
2004					<b>电影性不同性器</b>						
2005											
2006											
2007									No. 4 Tree		
2008											
2009									STORES HOLD		
2010											
2011											
2012					<b>国际国际区域</b>						
2013											
2014 YTD (June 30)											
Total 2000 - 2014 YTD											

		Motor Vehi	cles	Vulnerable F	Road Users			Calculated	Ratio	
Calendar Year	All Serious Injuries	Driver	Passe nger	Sub-total Vehicle Serious Injuriies	Motorcycle & Mopeds Fatalities	Pe ds	Cyclists	Sub Total VRU Serious Injuries	Motor Vehicle s / All Serious Injuries	VRU/All Serious Injuries
2000										
2001										
2002										
2003										
2004										
2005										
2006										
2007										
2008										
2009										
2010										
2011										
2012										
2013				RALE IN LAND						
2014 YTD (June 30)										
Total 2000 - 2014 YTD										

				Motor '	Vehicles	Calculated	Vulnerable F	Road Us	sers	Calculated	Ratio	Ratio
Calendar Year	Number Licensed Active Drivers	All Fatalities	Unknown/error	Driver	Passenge r	Sub-total Vehicle Fatals	Motorcycle & Mopeds Fatalities	Peds	Cyclist	Sub Total VRU Fatals	Motor Vehicles / All Fatals	VRU/ All Fatals
2000										<b>克尔里克斯</b> 克		
2001												
2002						B B - 21 - 3 - 3 - 5						
2003						C. DE STEASE				P 2.72 FOR		
2004										Haller Allert Hall		
2005												
2006												
2007												
2008												
2009												
2010										1		
2011						A PATRICIA DE LA CO						
2012						The state of the s						
2013						7 7 1 2 2 3						
2014 YTD (June 30)												
Total 2000 - 2014 YTD												

# Attachment A - MPI Claim and Cost Statistics

9. MPIR	atios - Fatali	ties per 100	0 Registered	Vehicles							
		Unknown lities /errors	Motor Vehic	Calculated	Ratio						
Calendar Year	All Fatalities		Driver	Passe nger	Sub-total Vehicle Fatals	Motorcycle & Mopeds Fatalities	Pe ds	Cyclists	Sub Total VRU Fatals	Motor Vehicle s / All Fatals	VRU/All Fatals
2000											
2001											
2002											
2003					ENERGY WALLS						
2004											
2005											
2006											
2007											
2008											
2009											
2010											
2011											
2012											
2013									I RESTRICTION OF THE PARTY OF T		
2014 YTD (June 30)											
Total 2000 - 2014 YTD											

# Attachment A - MPI Claim and Cost Statistics

10. MPI F	Ratios - Se	rious Injur	ies per 1000	Licensed	Active Driv	/ers						
Calendar Year		nse All tive Serious	rious Unknown	Vul ner able Roa d Use Motor Vehicles			Calculated				Ratio	Ratio
	Numbe r License d Active Drivers			Driver	Passe nger	Sub-total Vehicle Serious Injuriies	Motorcycle & Mopeds Fatalities	Peds	Cyclists	Sub Total VRU Serious Injuries	Motor Vehicles / All Serious Injuries	VRU/A II Seriou s Injurie s
2000												
2001												
2002												
2003												
2004												
2005												
2006												
2007												
2008												
2009												
2010												
2011										Part land		
2012												
2013												
2014 YTD (June 30)												
Total 2000 - 2014 YTD						Page 12						

## Attachment A - MPI Claim and Cost Statistics

				Motor Vehicles	Calculate d	Vulnerabl e Road Users	Calculated				Ratio	Ratio
Calendar Year 2000	Registered Vehicles	All Serious Injuries	Unknown /errors	Driver	Passenge r	Sub-total Vehicle Serious Injuriies	Motorcycle & Mopeds Fatalities	Ped s	Cyclists	Sub Total VRU Serious Injuries	Motor Vehicles / All Serious Injuries	VRU/Al Serious Injuries
2001								_	_			
2002												
2003												
2004												
2005												
2006												
2007												
2008												
2009												
2010												
2011												
2012												
2013												
2014 YTD (June 30)												
Total 2000 - 2014												
YTD						Page 13						

CAC (MPI) 1-201 Reference: CAC/Bike Winnipeg

(MPI) 2-4 2014 GRA

Preamble: CAC MB is of the opinion that better informed consumers are an essential component in any effort to reduce the traffic social and economic costs arising from motor vehicle accidents.

- a) Please complete the tables provided in Attachment B, with regard to the victim type and group of motor vehicle occupants and vulnerable road users, and indicate the actual annual total losses, including the count of claims and incurred costs, from 200 to 2014YTD.
- b) Has MPI developed a projected (forecast or estimate) of claims or total annual losses (costs) for motor vehicle occupants and vulnerable road users into the future? If so, please provide the projection.

#### **RESPONSE:**

a) and b)

Please refer to CAC (MPI) 1-2 a) and b).

July 31, 2014 CAC (MPI) 1-201 Attachment B

# Attachment B - MPI Claim and Cost Statistics

Calendar Year 2000			Motor Vehic	cle Occupant	s Vulnerable	Road Users	Calculated	Ratio			
	All Victim Types	Unknown /errors	Driver	Passe nger	Sub-total Vehicle Occupants	Motorcycle & Mopeds	Pe ds	Cyclists	Sub Total VRU	Motor Vehicle s / All Victim Types	VRU/AII Victim Types
2000							+				
2001							+				
2002							+				
2004				-			+				
2005							+				
2006											
2007							-				
2008							1				
2009											
2010											
2011											
2012											
2013											
2014											
YTD (June 30)											
Total 2000 - 2014 YTD											

# Attachment B - MPI Claim and Cost Statistics

Calendar Year	All Serious Injuries	Unknown /errors	Motor Vehicles		Vulnerable	Road Users	Calculated	Ratio			
			Driver	Passe nger	Sub-total Vehicle Occupants	Motorcycle & Mopeds	Pe ds	Cyclists	Sub Total VRU	Motor Vehicle s / All Victim Types	VRU/AII Victim Types
2000							-				
2001		-					-				
2002							-				
2003							_				
2004											
2005											
2006											
2007											
2008											
2009											
2010											
2011											
2012											
2013											
2014											
YTD (June 30)											
Total	-								MARKET CO.		
2000 -											
2014											
YTD											

CAC (MPI) 1-202 Reference: Pre-Filed Testimony page 3

Preamble: An objective is stated as "Achieve an actuarial opinion of being in a satisfactory future financial condition."

Since the rate indication and proposal set forth by the Corporation is not determined using accepted actuarial practice is this not contradictory? Should the entire application not follow accepted actuarial practice for consistency and best practice?

#### **RESPONSE:**

The statement is not contradictory. The Corporation has been calculating Basic rates using an actuarially sound and statistically driven ratemaking methodology for over two decades. The Corporation operates in a unique insurance and regulatory environment in which the methodology used to calculate both the Basic rate indication and the minimum capital requirement may need to be modified relative to what is used in the private sector; however, that does not imply that the methodologies used by the Corporation are not actuarially sound or do not follow best practice.

In terms of Basic rates, the Corporation has shown in AI.9.4 that if rates are balanced to achieve 'break-even' net income over the rating period then there is virtually no difference between rates calculated using the existing PUB approved ratemaking methodology and accepted actuarial practice. The balancing adjustment was first discussed by the Corporation in the 1992 Rate Application (RD.1, page 21) when it stated:

"Using this method, the resulting required premium is higher because only investment income earned from the current year's policies is accounted for. For example, investment income from retained earnings is not used as a premium offset. Due to the Corporation's non-profit mandate, this income should be used as a premium offset and therefore the method described



under Section 2.3.1 [i.e. the Corporation's current ratemaking methodology] is more consistent with the goals of the Corporation."

In terms of the Corporation's minimum capital requirements, the Corporation is actively working with the PUB and CAC to develop a DCAT report that complies with actuarial standards of practice, while still addressing the unique circumstances of the Basic compulsory insurance program.

### CAC (MPI) 1-203

Reference: Exhibit 1 of Section AI.9 there is reference in the notes to

Appendix 2.

Please provide the appendices to which this refers.

#### **RESPONSE:**

The note should read "From Exhibit 2".

CAC (MPI) 1-204 Reference: Claims Incurred page 11

Preamble: The Ultimate claims costs for Weekly Indemnity shown on page 11 of the Claims Incurred section forecast for 2015/16 is \$61,553. The figure shown on Exhibit 1 of Section AI.9 is \$61,792. Similar mismatches exist for all coverages.

Please reconcile the ultimate forecasts shown in the Claims Incurred section to the figures shown on Exhibit 1 of Section AI.9 for each coverage separately.

#### **RESPONSE:**

The amount of \$61,553 represents the ultimate claims costs for accident year 2015/16. The amount of \$61,792 represents the ultimate claims costs for policy/rating year 2015/16. The conversion of the accident year amount to the policy/rating year amount (for all coverages) is described in pages 10 and 11 of Volume III AI.9, Actuarial Standards Compliance, with the derivation presented in Exhibit 2.

### CAC (MPI) 1-205 Reference: AI.9 page 11

Preamble: The interest rate used appears to be 4.15%. This is inconsistent with the discount rate used in the Actuary's report of 3.90%.

Please explain this inconsistency.

#### **RESPONSE:**

Per page 11, the discount rate of 4.15% is the "projected duration weighted interest rate of the Corporation's fixed income portfolio as at March 1, 2015". The 3.90% is the corresponding figure as at October 31, 2013.

CAC (MPI) 1-206 Reference: Exhibit 2 of Section AI.9,

Please give the formula for the calculation of the discount factor of 103.62% for 2015/16 and explain how a discount factor could be above 100% for the year in which rates are to be forecast for.

#### **RESPONSE:**

Per page 11 of AI.9, "Payments were discounted from the midpoint of the development quarter/year to the end of rating year 2015/16 (i.e. February 28, 2016)". The midpoint of the first quarter (Q1) of 2015/16 is April 15, 2015. Payments in Q1 were brought forward by 10.5 months from April 15, 2015 to February 28, 2016. At an interest rate of 4.15%, this is equivalent to a discount factor of 103.62% i.e.  $(1 + 4.15\%) \land (10.5 / 12)$ .

CAC (MPI) 1-207 Reference: With reference to Exhibit 2 of Section AI.9

Please explain why the Corporation split 2015/16 through 2017/18 into quarters for ratemaking purposes.

#### **RESPONSE:**

Claim payments in the first two development years of the accident year are not uniformly distributed. As such, we divided the first two development years of the accident year into quarters to more accurately reflect the actual distribution. Beyond the first two development years, claim payments are assumed to be uniformly distributed.

CAC (MPI) 1-208 Reference: Section AI.9 page 4

Please give the calculation of the \$1054 proposed average rate for Private Passenger giving the sources of the figures used to calculate this figure. Please include the breakdown of the claims incurred forecasts used in the calculation by coverage.

#### **RESPONSE:**

The methodology used to calculate the \$1,054 proposed average rate for Private Passenger is similar to the methodology presented in Volume II Ratemaking, section RM.4.

CAC (MPI) 1-209 Reference: Page 6 of Section AI.9

Please explain how the -5.1% profit provision was determined. Was it set at the percentage required to make the two sets of rates equal or was there a calculation behind it?

#### **RESPONSE:**

See Volume III Actuarial Standards Compliance, section AI.9.4. Page 6 explains the calculation/rationale for the -5.1% profit provision.

CAC (MPI) 1-210 Reference: October 31, 2013
Actuary's Report

Preamble: With reference to Appendix E Page 6 of the October 31 2013 Actuary's Report it is noted that the 116 - ultimate factor has increased from 0.996 in the February 28 2013 Actuary's report to 1.010 on this report, driven by the tail factor from 212-ultimate.

Please give the calculation, including all figures used and their source, of the 212ultimate tail factor of 1.0356.

#### **RESPONSE:**

The 116-Ultimate factor of 1.0100 was selected to reflect actual experience observed, specifically the 'Latest 6 Volume Weighted' average of 1.0095. 12-month development factors for 116 months and thereafter were also selected if there were at least five observed factors. In particular, 12-month development factors were selected for the 116-128 factor to the 176-188 factor. The 212-Ultimate factor of 1.0356 was then derived as noted in Appendix E, Page 5 i.e. "212-Ult Factor = [Tab Rsv 116-Ult] / Product [116-128 Factor to 200-212 Factor]". This ensures that the product of the factors will result in a 116-Ultimate factor of 1.0100.

CAC (MPI) 1-211 Reference: October 31, 2013
Actuary's Report

Preamble: With reference to Exhibit 4 Sheet 6, Accident Benefits – Other (Indexed), of the October 31 2013 Actuary's Report it is noted that using the factors from the February 2013 Actuary's report from 116 months of development through the tail decreases the IBNR by approximately \$7 million.

- a) Please confirm the \$7 million reduction in IBNR given the assumed change in assumptions.
- b) Please give the reasoning behind the increase in factors for this coverage beyond 116 months of development.

#### **RESPONSE:**

- a) Confirmed.
- b) The factors were revised to reflect actual observed experience. For example, the reported 140-152 factor was increased from 0.9950 to 1.0000 since actual observed experience for the last three observations were greater than 1.0000 (i.e. factors of 1.0042, 1.0105 and 1.0237).