LEGAL APPLICATION

2018 GENERAL RATE APPLICATION June 16, 2017



Table of Contents

LEGA	L APPLICATION	3
	ART.1 MISCELLANEOUS PERMITS AND CERTIFICATES	
LA.2	ART.2 DRIVER LICENCE PREMIUMS AND VEHICLE PREMIUM DISCOUNTS	4
LA.3	ART.3 SERVICE AND TRANSACTION FEES	4
LA.4	ART.4 FLEET REBATES AND SURCHARGES	4
ΙΔ 5	RASIC DATE TARI E	4

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LEGAL APPLICATION

Manitoba Public Insurance (the Corporation) is applying to the Public Utilities Board (the PUB) for approval of the Corporation's premiums charged with respect to compulsory driver and vehicle insurance (rates for service), in accordance with the provisions of *The Crown Corporations Public Review and Accountability Act* and *The Public Utilities Board Act*.

In the 2018 GRA for Basic Autopac the Corporation is requesting that the Board approve:

- The premiums charged with respect to compulsory driver and vehicle insurance (rates for service) effective March 1, 2018.
- A 2.7% increase in Basic vehicle premium revenue effective March 1, 2018.
- No Rate Stabilization Reserve (RSR) rebuilding fee on Basic Autopac premiums effective March 1, 2018.
- A minimum (lower) RSR total equity target based on a 1-in-40 probability
 Dynamic Capital Adequacy Test (DCAT) scenario from the 2017 DCAT report
 which will be filed supplementary to this application.
- A maximum (upper) range RSR total equity target of \$438 million, based on a 100% Minimum Capital Test (MCT) value.
- Changes to driver premiums through the Driver Safety Rating (DSR) system, that are expected to increase driver premium revenue by \$17.5 million.

<u>Volume II Application Rate Table</u> section contains the 2018 Basic insurance rates as follows:

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LA.1 ART.1 MISCELLANEOUS PERMITS AND CERTIFICATES

 There is no change in the \$40 discount provided to customers with approved aftermarket and manufacturer/dealer installed anti-theft devices

LA.2 <u>ART.2</u> DRIVER LICENCE PREMIUMS AND VEHICLE PREMIUM DISCOUNTS

• MPI is proposing changes to driver premiums through the Driver Safety Rating (DSR) system, that are expected to increase driver premium revenue by \$17.5 million. The proposed driver premium increases only impact drivers on the demerit side of the DSR scale, and are structured such that no demerit driver will face an increase in their 2018/19 driver premium relative to what they paid in 2017/18, if they qualify to move up the DSR scale, with an 'incident free' year of driving in 2017/18.

LA.3 ART.3 SERVICE AND TRANSACTION FEES

There is no change to service and transaction fees.

LA.4 ART.4 FLEET REBATES AND SURCHARGES

There is no change to fleet rebates or surcharges.

LA.5 BASIC RATE TABLE

- Experience-based rate adjustments largely ranging from -15% to +15%, as shown
 in <u>Volume II Ratemaking Appendix 11</u> based on adjustment rules shown in <u>Volume</u>
 II Ratemaking RM.5.
- Combined classification offsets for all vehicles except off-road vehicles, to achieve revenue neutrality in implementing rate group, rate line and classification changes for 2018/19, as shown in <u>Volume II Ratemaking Appendix 2</u>.

Figure RM- 11: 4.3 Rating Year 2018/19 Major Classification Required Rate Changes

Line			Private	te Motor-				
No.	Coverage	Overall	Pass	Comm	Public	Cycle	Trailer	ORV
1	18/19 Units	1,182,000	817,600	47,100	12,500	17,000	212,300	75,500
2	Claims	692.64	909.80	622.35	1,635.18	651.55	64.21	5.17
3	Claims Expense	116.84	153.47	104.98	275.84	109.91	10.83	0.87
4	Road Safety	11.02	14.57	14.57	14.57	14.57	0.00	0.00
5	Operating Expense	64.43	85.16	85.16	85.16	85.16	0.00	0.00
6	Regulatory/Appeal	3.53	4.67	4.67	4.67	4.67	0.00	0.00
7	Commission: Vehicle	29.12	38.22	26.49	67.39	26.73	2.90	0.21
8	Prem Tax: Vehicle	26.96	35.39	24.53	62.40	24.75	2.68	0.19
9	Comm & Prem Tax: Driver	3.72	4.92	4.92	4.92	4.92	0.00	0.00
10	Commission Flat Fee	5.77	7.63	7.63	7.63	7.63	0.00	0.00
11	Reins: Casualty	1.76	2.32	2.32	2.32	2.32	0.00	0.00
12	Reins: Catastrophe	8.08	8.77	8.77	8.77	0.00	8.77	0.00
13	Fleet Rebates	13.53	18.23	18.23	18.23	0.00	0.00	0.00
14	Anti-Theft Discount	2.40	3.46	0.00	0.00	0.00	0.00	0.00
15	Driver Prem	59.60	78.78	78.78	78.78	78.78	0.00	0.00
16	Service Fees	21.41	28.30	28.30	28.30	28.30	0.00	0.00
17	Inv Inc	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Req Rate (Raw)	898.80	1,179.53	817.53	2,080.00	825.13	89.40	6.45
19	Req Rate (Bal)	882.23	1,157.78	802.46	2,041.66	809.92	87.75	6.33
20	17/18 Average Rate	820.10	1,062.92	758.70	2,007.29	778.12	72.19	12.09
21	Major Class Drift	4.8%	6.2%	4.5%	1.4%	1.2%	3.7%	0.0%
	18/19 Average Rate							
22	Without Rate Change	859.36	1,128.61	792.72	2,036.15	787.21	74.90	12.09
23	Full Cred Req Change	2.7%	2.6%	1.2%	0.3%	2.9%	17.2%	-47.6%
24	Applied for Change	2.7%	2.6%	1.3%	0.3%	2.9%	17.2%	-47.6%
25	Credibility		99.3%	88.7%	67.6%	73.9%	97.3%	92.6%
26	Cred Wtd Change		2.6%	1.4%	1.1%	2.9%	16.8%	-43.9%
27	Cred Wtd Req Rate		1,158.23	804.05	2,058.23	809.77	87.48	6.78
28	Cred Wtd Req Rate (Bal)	882.56	1,157.98	803.87	2,057.78	809.60	87.46	6.78
29	Cred Wtd Change (Bal)		2.6%	1.4%	1.1%	2.8%	16.8%	-43.9%

RM.4.4 Vehicle Group Required Rates

The composition of vehicles in each major class can be subdivided using the following rating variables:

Territory

1 2

Insurance use

Figure RM- 13 6.0 Dollar Distribution Table

Line			
No.	\$ Change	# of Vehicles	% of Vehicles
1	Decrease \$300 or more	6	0.00%
2	Decrease \$200 to \$299	164	0.01%
3	Decrease \$150 to \$199	238	0.02%
4	Decrease \$100 to \$149	3,518	0.31%
5	Decrease \$50 to \$99	30,272	2.68%
6	Decrease \$20 to \$49	80,797	7.15%
7	Decrease \$1 to \$19	171,335	15.16%
8	No Change	115,238	10.20%
9	Increase \$1 to \$19	198,423	17.56%
10	Increase \$20 to \$49	232,256	20.55%
11	Increase \$50 to \$99	267,416	23.66%
12	Increase \$100 to \$149	29,994	2.65%
13	Increase \$150 to \$199	88	0.01%
14	Increase \$200 to \$299	70	0.01%
15	Increase \$300 or more	452*	0.04%
16	GRAND TOTAL	1,130,267	100%
17	*451 Taxis in Territory 1		
18	*1 All Purpose Sport Motorcycle in Territory 1		

Figure RM- 14 6.0 Percent Distribution Table

Line			
No.	% Change	# of Vehicles	% of Vehicles
1	Decrease 20% or more	1	0.00%
2	Decrease 15% to 20%	69,711	6.17%
3	Decrease 10% to 15%	787	0.07%
4	Decrease 5% to 10%	40,812	3.61%
5	Decrease less than 5%	175,019	15.48%
6	(No Change)	115,238	10.20%
7	Increase less than 5%	413,333	36.57%
8	Increase 5% to 10%	260,674	23.06%
9	Increase 10% to 15%	40,686	3.60%
10	Increase 15% to 20%	11,918	1.05%
11	Increase 20% or more	2,088	0.18%
12	GRAND TOTAL	1,130,267	100%

DRIVER CLASSIFICATION SYSTEM

2018 GENERAL RATE APPLICATION June 16, 2017



Table of Contents

DRIVER	R CLASSIFICATION SYSTEM	3
DCS.1	DRIVER PREMIUMS	5
DCS.2	VEHICLE PREMIUM DISCOUNT	6

DRIVER CLASSIFICATION SYSTEM

Effective March 1, 2010, Manitoba Public Insurance implemented the Driver Safety Rating (DSR) program as a method of classifying driver risk. The DSR program is prescribed in regulation under *The Manitoba Public Insurance Corporation Act* and replaces the previous "bonus/malus" plan.

The goals of the DSR program are to:

- Strengthen the ability to reward the safest drivers
- Encourage poor drivers to improve their driving behavior
- Enhance drivers' overall understanding of how their driving behaviour can affect how much they pay for auto insurance.

The Driver Safety Rating Scale runs from a maximum of +15 merits to -20 demerits, with a neutral "0" point between the two. Each year, at their renewal date, drivers either move up the scale or down the scale based on their driving history during the last year. Drivers in the DSR merit zone move up the scale by one level whenever they complete a full year of driving without any at-fault claims and eligible traffic violations.

As an incentive to improve, drivers in the DSR demerit zone are able to move up faster if they maintain a valid driver's licence for a minimum of 335 days and demonstrate a change in driving behavior. For example, a driver with 20 DSR demerits moves up 7 levels if he/she goes a full year without any at fault claims and eligible traffic violations. If the driver continues to drive incident-free, he/she can return to DSR 0 level within five years. The following table shows the upward movement for a full year of incident-free driving.

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Figure DCS- 1: DSR Movement Table

Line No.	DSR Level	Movement with clean year with active licence	DSR Level	Movement with clean year with active licence
1	1 to 15 merits	1 level up	-10	4 levels up
2	0	1 level up	-11	4 levels up
3	-1	1 level up	-12	5 levels up
4	-2	2 levels up	-13	5 levels up
5	-3	3 levels up	-14	5 levels up
6	-4	3 levels up	-15	5 levels up
7	-5	3 levels up	-16	6 levels up
8	-6	3 levels up	-17	6 levels up
9	-7	3 levels up	-18	6 levels up
10	-8	4 levels up	-19	7 levels up
11	-9	4 levels up	-20	7 levels up

Drivers move down the scale if they have had one or more traffic violations or at-fault claims. For traffic violations, the number of levels they move down depends on the severity of the violation (2 to 15 levels down). An at-fault claim moves a driver five levels down the DSR scale.

There are no changes in 2018/19 to the number of DSR levels or the movement of drivers on the DSR scale.

Full details of the DSR program can be found in the <u>Driver Safety Rating System</u> <u>Regulation</u>.

http://web2.gov.mb.ca/laws/regs/current/ pdf-regs.php?reg=13/2009

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DCS.1 DRIVER PREMIUMS

A basic insurance premium is charged on every Manitoba driver licence to ensure that all Manitoba drivers share the risk of accidents. Drivers on the merit side of the DSR scale pay a lower Driver Premium than drivers on the demerit side of the scale. Driver Premiums for the DSR demerit levels followed the phased in approach presented to the Public Utilities Board in April 2009, which was completed with the 2013/14 Rate Application. From 2013/14 to the 2017/18 Rate Application the driver premiums were unchanged.

In the 2018/19 Application the Corporation is proposing increases to the driver premiums on the demerit side of the scale as shown in <u>Figure DCS-2</u>. The rationale for the proposed 2018/19 driver premiums is provided in <u>Volume II REV.2 Driver Premiums</u>.

The Driver Premium <u>Figure DCS-2</u>, shows the driver premiums since the implementation of DSR.

DCS.2 VEHICLE PREMIUM DISCOUNT

Vehicle Premium Discount is another DSR component used to reward Manitoba drivers
with good driving history. The Corporation is not proposing any changes to the
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Premium Discounts can be found in Volume II Application Rate Tables ART.2.

Figure DCS- 2: 2.0 Driver premiums approved since the implementation of DSR

Line No.	DSR Level	2010/11	2011/12	2012/13	2013/14 to 2017/18	Proposed 2018/19
1	15	\$15	\$15	\$15	\$15	\$15
2	14	n/a	\$20	\$20	\$20	\$20
3	13	n/a	\$20	\$20	\$20	\$20
4	12	n/a	\$20	\$20	\$20	\$20
5	11	n/a	\$20	\$20	\$20	\$20
6	10	\$20	\$20	\$20	\$20	\$20
7	9	\$25	\$25	\$25	\$25	\$25
8	8	\$30	\$30	\$30	\$30	\$30
9	7	\$30	\$30	\$30	\$30	\$30
10	6	\$30	\$30	\$30	\$30	\$30
11	5	\$30	\$30	\$30	\$30	\$30
12	4	\$30	\$30	\$30	\$30	\$30
13	3	\$35	\$35	\$35	\$35	\$35
14	2	\$35	\$35	\$35	\$35	\$35
15	1	\$40	\$40	\$40	\$40	\$40
16	0	\$45	\$45	\$45	\$45	\$45
17	-1	\$45	\$45	\$45	\$100	\$200
18	-2	\$45	\$45	\$75	\$100	\$200
19	-3	\$45	\$45	\$150	\$200	\$300
20	-4	\$45	\$100	\$150	\$200	\$400
21	-5	\$45	\$100	\$200	\$300	\$450
22	-6	\$245	\$250	\$300	\$300	\$500
23	-7	\$270	\$300	\$350	\$400	\$650
24	-8	\$295	\$300	\$350	\$400	\$800
25	-9	\$320	\$350	\$400	\$500	\$900
26	-10	\$345	\$400	\$450	\$500	\$1,000
27	-11	\$395	\$500	\$600	\$700	\$1,200
28	-12	\$445	\$500	\$700	\$900	\$1,400
29	-13	\$495	\$600	\$800	\$1,100	\$1,600
30	-14	\$545	\$700	\$1,000	\$1,300	\$1,800
31	-15	\$595	\$800	\$1,200	\$1,500	\$2,000
32	-16	\$670	\$1,000	\$1,300	\$1,700	\$2,200
33	-17	\$745	\$1,200	\$1,500	\$1,900	\$2,400
34	-18	\$820	\$1,200	\$1,600	\$2,100	\$2,600
35	-19	\$895	\$1,300	\$1,800	\$2,300	\$2,800
36	-20	\$1,044	\$1,500	\$2,000	\$2,500	\$3,000

PF.1 STATEMENT OF OPERATIONS – 2.7% RATE CHANGE

Multi-Year – Statement of Operations

2018 GRA - +2.7% Rate Change	For the Years Ended February 28/29,							
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022	
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F	
Motor Vehicles	886,998	958,740	958,740	1,025,482	1,068,082	1,112,891	1,158,599	
Drivers	48,426	50,892	50,334	69,148	71,252	73,311	75,162	
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,222)	
Total Net Premiums Written	923,789	998,341	997,783	1,083,113	1,127,587	1,174,220	1,221,539	
Net Premiums Earned								
Motor Vehicles	871,174	925,950	925,950	994,660	1,048,409	1,092,198	1,137,491	
Drivers	47,606	49,543	49,265	59,702	70,196	72,277	74,233	
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,222)	
Total Net Premiums Earned	907,145	964,202	963,924	1,042,845	1,106,858	1,152,493	1,199,502	
Service Fees & Other Revenues	20,748	22,204	22,204	24,328	26,431	28,532	30,849	
Total Earned Revenues	927,893	986,406	986,128	1,067,173	1,133,289	1,181,025	1,230,351	
Net Claims Incurred	872,119	843,373	815,056	855,821	910,926	957,068	1,007,754	
(a) Claims Incurred - Interest Rate Impact	(12,084)	-	(75,641)	8,465	1,930	42	(294)	
Total Claims Incurred	860,035	843,373	739,415	864,286	912,856	957,110	1,007,460	
Claims Expense	120,972	134,271	134,294	137,885	139,841	142,811	144,224	
Road Safety/Loss Prevention	12,530	13,214	13,210	13,090	12,947	13,210	13,447	
Total Claims Costs	993,537	990,858	886,919	1,015,261	1,065,644	1,113,131	1,165,131	
Expenses								
Operating	72,785	72,596	72,563	74,921	75,469	77,262	79,277	
Commissions	35,086	37,669	37,655	40,593	42,723	44,438	46,209	
Premium Taxes	27,563	29,265	29,256	31,631	33,558	34,934	36,352	
Regulatory/Appeal	4,889	4,056	4,054	4,132	4,217	4,302	4,389	
Total Expenses	140,323	143,586	143,528	151,277	155,967	160,936	166,227	
Underwriting Income (Loss)	(205,967)	(148,038)	(44,319)	(99,365)	(88,322)	(93,042)	(101,007)	
Investment Income	101,645	102,478	101,827	78,109	80,017	85,863	84,391	
(b) Investment Income - Interest Rate Impact	(18,748)	-	-	-	-	-	-	
Net Investment Income	82,897	102,478	101,827	78,109	80,017	85,863	84,391	
Net Income (Loss) from Operations for Rate Setting	(123,070)	(50,953)	45,380	(30,730)	(5,834)	(3,554)	(10,365)	
Add: DPAC / Premium Deficiency adjustment	-	(5,393)	(12,128)	(9,474)	2,471	3,625	6,251	
Net Income (Loss)	(123,070)	(45,560)	57,508	(21,256)	(8,305)	(7,179)	(16,616)	
Total net Impact due to interest rate change (b) - (a)	(6,664)	-	75,641	(8,465)	(1,930)	(42)	294	

PF.2 STATEMENT OF FINANCIAL POSITION – 2.7% RATE CHANGE

Multi-year - Statement of Financial Position

2018 GRA - +2.7% Rate Change

(C\$ 000s, rounding may affect totals)	As at February 28/29,						
	2017	2018	2018	2019	2020	2021	2022
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
Assets							
Cash and cash equivalents	61,606	11,530	11,507	10,792	10,682	15,218	17,283
Investments	2,189,534	2,303,479	2,317,540	2,400,766	2,493,393	2,584,603	2,679,170
Investment property	35,615	35,906	35,939	37,797	37,875	37,790	37,005
Due from other insurance companies	16	-	-	-	-	-	-
Accounts receivable	355,389	334,196	334,047	358,907	372,893	387,219	401,795
Deferred policy acquisition costs	-	-	3,286	14,687	13,447	11,116	6,185
Reinsurers' share of unpaid claims	611	-	-	-	-	-	-
Property and equipment	89,847	88,665	88,665	90,237	90,615	88,071	84,746
Deferred development costs	72,866	69,306	69,306	68,993	73,046	74,339	72,600
	2,805,484	2,843,082	2,860,290	2,982,179	3,091,951	3,198,356	3,298,784
Liabilities							
Due to other insurance companies	147	114	114	114	114	114	114
Accounts payable and accrued liabilities	40,443	31,263	31,263	32,225	32,454	33,083	33,631
Financing lease obligation	3,239	2,983	2,983	2,907	2,826	2,726	2,618
Unearned premiums and fees	472,041	508,511	508,231	551,842	576,195	601,849	628,143
Provision for employee current benefits	16,919	17,362	17,362	18,087	18,822	19,568	20,325
Provision for employee future benefits	301,245	310,108	310,108	323,746	338,675	354,155	370,177
Provision for unpaid claims	1,790,450	1,856,651	1,770,101	1,848,532	1,919,243	1,986,348	2,051,479
	2,624,484	2,726,992	2,640,162	2,777,453	2,888,329	2,997,843	3,106,487
Equity							
Retained Earnings	99,251	53,691	156,759	135,503	127,198	120,019	103,403
Accumulated Other Comprehensive Income	81,749	62,399	63,369	69,223	76,424	80,494	88,894
Total Equity	181,000	116,090	220,128	204,726	203,622	200,513	192,297
Total Liabilities & Equity	2,805,484	2,843,082	2,860,290	2,982,179	3,091,951	3,198,356	3,298,784

PF.3 STATEMENT OF CHANGES IN EQUITY - 2.7% RATE CHANGE

Multi-years - Statement of Changes in Equity

2010	CDA	. 2 70/	Data	Change
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(C\$ 000s, except where noted)	For the Years Ended February,							
	2017	2018	2018	2019	2020	2021	2022	
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F	
Total Equity								
Retained Earnings								
Beginning Balance	194,497	99,251	99,251	156,759	135,503	127,198	120,019	
Net Income (Loss) from annual operations	(123,070)	(45,560)	57,508	(21, 256)	(8,305)	(7,179)	(16,616)	
Transfer (to) / from Non-Basic Retained Earnings	27,824	-	-	-	-	-	-	
Total Retained Earnings	99,251	53,691	156,759	135,503	127,198	120,019	103,403	
Accumulated Other Comprehensive Income								
Beginning Balance	36,503	81,749	81,749	63,369	69,223	76,424	80,494	
Other Comprehensive Income for the Year	45,246	(19,350)	(18,380)	5,854	7,201	4,070	8,400	
Total Accumulated Other Comprehensive Income	81,749	62,399	63,369	69,223	76,424	80,494	88,894	
Total Equity Balance	181,000	116,090	220,128	204,726	203,622	200,513	192,297	
Total Equity								
Rate Stabilization Reserve								
Retained Earnings	99,251	53,691	156,759	135,503	127,198	120,019	103,403	
Accumululated Other Comprehensive Income	81,749	62,399	63,369	69,223	76,424	80,494	88,894	
Total Rate Stabilization Reserve	181,000	116,090	220,128	204,726	203,622	200,513	192,297	
Retained Earnings in excess of Rate Stabilization Reserve	-	-	-	-	-	-	-	
Total Equity Balance	181,000	116,090	220,128	204,726	203,622	200,513	192,297	
RATE STABILIZATION RESERVE TARGETS								
DCAT Total Equity Lower Target	181,000	181,000	181,000	181,000	181,000	181,000	181,000	
MCT Total Equity Upper Target	366,000	411,000	411,000	438,000	438,000	438,000	438,000	

PF.4 STATEMENT OF OPERATIONS 2016/17 COMPARATIVE

' OOOs avaant where noted)	2016/17B	2016/17A	Inc (dec)	Ref.	(Decrease)
\$ 000s, except where noted)	\$	\$	\$	_	%
Net Premiums Written					
Motor Vehicles	893,420	886,998	(6,422)		(0.72
Drivers	50,393	48,426	(1,967)		(3.90
Reinsurance Ceded	(11,632)	(11,635)	(3)		0.03
Total Net Premiums Written	932,181	923,789	(8,392)	(1)	(0.90
Net Premiums Earned					
Motor Vehicles	875,348	871,174	(4,174)		(0.48
Drivers	48,478	47,606	(872)		(1.8
Reinsurance Ceded	(11,632)	(11,635)	(3)		0.0
Total Net Premiums Earned	912,194	907,145	(5,049)		(0.5
Service Fees & Other Revenues	21,557	20,748	(809)		(3.7
Total Earned Revenues	933,751	927,893	(5,858)		(0.6
Net Claims Incurred	762,626	872,119	109,493		14.3
(a) Claims Incurred - Interest rate impact	(80,856)	(12,084)	68,772		(85.0
Total Claims Incurred	681,770	860,035	178,265	(2)	26.1
Claims Expense	125,191	120,972	(4,219)	(4)	(3.3
Road Safety/Loss Prevention	13,318	12,530	(788)	(4)	(5.9
Total Claims Costs	820,279	993,537	173,258	(.)	21.1
Expenses					
Operating	76,908	72,785	(4,123)	(4)	(5.3
Commissions	35,616	35,086	(530)	(+)	(1.4
Premium Taxes	27,715	27,563	(152)		(0.5
Regulatory/Appeal	3,421	4,889	1,468	(4)	42.9
Total Expenses	143,660	140,323	(3,337)	(1)	(2.3
Underwriting Income (Loss)	(30, 188)	(205,967)	(175,779)		582.2
Investment Income	81,531	101,645	20,114	(3)	24.6
(b) Investment Income - Interest rate impact	(64,737)	(18,748)	45,989	(0)	(71.0
Total Investment Income	16,794	82,897	66,103		393.6
Net Income (Loss) from Operations	(13,394)	(123,070)	(109,676)		818.8
· · · · · ·					
Allocated Corporate Expenses Claims Expense	125,191	120,972	(4,219)		(3.3
Road Safety/Loss Prevention	13,318	120,472	(788)		(5.9
	76,908	72,785	(4,123)		(5.3
Operating Regulatory/Appeal	3,421	4,889	1,468		42.9
Total Allocated Corporate Expenses	218,838	211,176	(7,662)		(3.5
Allocated Corporate Expenses					
Normal Operations	212,630	213,481	851	(1)	0.4
Initiatives Implementation	6,085	(2,305)	(8,390)	(4) (4)	(137.8
	123	(2,303)			
Initiatives Ongoing Total Allocated Corporate Expenses	218,838	211,176	(123)	(4)	(100.0 (3.5
otal net positive impact due to interest rate change	16,119	(6,664)	(22,783)		(141.3

Explanation of Significant Variances - 2016/17 Comparative

Ref. Category	(C\$ 000s)	Explanation
(1) Net Premiums Written	932,181	2017 GRA
,	(959)	Lower then expected premium related to volume
	(6,109)	Lower motor vehicle premium upgrade due to less new vehicles
	584	Higher fleet rebate
	(26)	Lower Immobilizer discounts
	(1,967)	Lower driver premiums primarilary due lower volume
	85	Higher reinsurance and other
*detailed explanations along with commentary found	923,789	2018 GRA
	127,121	
in Volume II-Revenues		
(2) Net Claims Incurred	681,770	2017 GRA
	32,343	Higher forecasted Comprehensive claims
	55,542	Higher PIPP claims from actuarial adjustments
	60,997	Lower than forecast interest rates
	15,877	Higher forecasted ILAE
	17,763	Higher Forecasted Write Down DPAC
	(1,071)	Collision & Property damage under budget
	(2,217)	Allowance for doubtful accounts
	(969)	Other
*detailed explanations along with commentary found in Volume II-Claims Incurred	860,035	2018 GRA
in volume in-Claims incurred		
(3) Investment Income	16,794	2017 GRA
	45,956	Higher than expected ALM impact due to interest rate forecast
	(617)	Lower than expected interest income on marketable bonds
	20,246	Higher equity investment income due to strong equity markets
	(2,396)	Lower than expected alternative investment income
	2,914	Other
*detailed explanations along with commentary found	82,897	2018 GRA
in Volume II-Investments		
(4) Allocated Corporate Expenses	212,630	2017 GRA
(Normal Operations)	2,267	Higher than expected salaries
	(1,071)	Lower than expected building expenses
	1,400	Higher than expected regulatory appeal expenses
	(636)	Lower than expected furniture and equipement
	(680)	Lower than expected safety & loss prevention
	(429)	Other
	213,481	2018 GRA
(4) Allocated Corporate Expenses	6,085	2017 GRA
(Initiatives Implementation)	(5,790)	Lower than expected salaries due to a change in accounting police
	(1,514)	Lower than expected data processing
	(815)	Lower than expected special services
	(271) (2,305)	Other 2018 GRA
(4) Allocated Corporate Expenses	123	2017 GRA
• •		
	(123)	Lower than expected date processing
(Initiatives Ongoing)		2018 GRA

PF.5 STATEMENT OF OPERATIONS 2017/18 COMPARATIVE

Statement of Operations - 2017/18 Comparative

	2017 GRA 2017/18F	2018 GRA 2017/18FB	Inc (dec)	Ref.	Increase/ (Decrease)
(C\$ 000s, except where noted)	\$	\$	\$	_	%
Net Premiums Written					
Motor Vehicles	976,257	958,740	(17,517)		(1.79)
Drivers	52,908	50,334	(2,574)		(4.87)
Reinsurance Ceded	(11,876)	(11,291)	585	(1)	(4.93)
Total Net Premiums Written	1,017,289	997,783	(19,506)	(1)	(1.92)
Net Premiums Earned					
Motor Vehicles	938,038	925,950	(12,088)		(1.29)
Drivers	51,645	49,265	(2,380)		(4.61)
Reinsurance Ceded	(11,876)	(11,291)	585		(4.93)
Total Net Premiums Earned	977,807	963,924	(13,883)		(1.42)
Service Fees & Other Revenues	23,227	22,204	(1,023)		(4.40)
Total Earned Revenues	1,001,034	986,128	(14,906)		(1.49)
Net Claims Incurred	790,682	815,056	24,374		3.08
(a) Claims Incurred - Interest rate impact	(33,622)	(75,641)	(42,019)		124.98
Total Claims Incurred	757,060	739,415	(17,645)	(2)	(2.33)
Claims Expense	128,708	134,294	5,586	(4)	4.34
Road Safety/Loss Prevention	13,251	13,210	(41)	(4)	(0.31)
Total Claims Costs	899.019	886,919	(12,100)	(4)	(1.35)
Total Glaims Costs	077,017	000,717	(12, 100)		(1.55)
Expenses					
Operating	78,242	72,563	(5,679)	(4)	(7.26)
Commissions	37,683	37,655	(28)		(0.07)
Premium Taxes	29,690	29,256	(434)		(1.46)
Regulatory/Appeal	3,494	4,054	560	(4)	16.03
Total Expenses	149,109	143,528	(5,581)		(3.74)
Underwriting Income (Loss)	(47,094)	(44,319)	2,775		(5.89)
Investment Income	67,893	101,827	33,934	(3)	49.98
(b) Investment Income - Interest rate impact	(31,565)	-	31,565	(-)	(100.00)
Total Investment Income	36,328	101,827	65,499		180.30
Net Income (Loss) from Operations	(10,766)	57,508	68,274		(634.16)
The most of Least, from Epotations	(.0,7.00)	0.7000	55/27 .		(66 11 16)
Allocated Corporate Expenses					
Claims Expense	128,708	134,294	5,586		4.34
Road Safety/Loss Prevention	13,251	13,210	(41)		(0.31)
Operating	78,242	72,563	(5,679)		(7.26)
Regulatory/Appeal	3,494	4,054	560		16.03
Total Allocated Corporate Expenses	223,695	224,121	426		0.19
Allocated Corporate Expenses					
Normal Operations	215,214	221,706	6,492	(4)	3.02
Initiatives implementation	4,994	2,444	(2,550)	(4)	(51.06)
Initiatives Ongoing	3,487	(29)	(3,516)	(4)	(100.83)
Total Allocated Corporate Expenses	223,695	224,121	426		0.19
*Total net positive impact due to interest rate change (b) - (a)	2,057	75,641	73,584		3,577.35

Explanation of Significant Variances - 2017/18 Comparative

Ref. Category	(C\$ 000s)	Explanation
(1) Net Premiums Written	1,017,289	2017 GRA
	(6,980)	Lower than expected 2016/17 actual premiums
	(6,138)	Lower rate change due to 3.7% vs 4.3% rate increase
	(2,382)	Lower then expected premium related to volume
	(1,933)	Lower motor vehicle premium upgrade due to less new vehicles
		Lower fleet rebate
	(89)	
	5	Higher Immobilizer discounts
	(2,574)	Lower driver premiums primarilary due to DSR impact
	585	Hgher reinsurance and other
detailed explanations along with commentary found	997,783	2018 GRA
in Volume II-Revenues		
(2) Net Claims Incurred	757,060	2017 GRA
(2) Net Glaims meaned	(36,163)	
		Higher forecasted growth in interest rates due to corporate bond purchas
	15,908	Higher forecast for Physical Damage claims
	5,307	Higher forecast for PIPP and Liability claims
	(5,921)	Lower forecasted ILAE from lower interest rates
	867	Higher forecasted ULAE
	2,323	Higher forecasted Write Down DPAC
	34	Other
detailed explanations along with commentary found	739,415	2018 GRA
in Volume II-Claims Incurred		
(3) Investment Income	36,328	2017 GRA
(b) The obtained the other	31,565	Higher than expected ALM impact due to interest rate forecast
	6,095	Higher than expected ALIV Impact due to interest rate forceast Higher than expected interest income on marketable bonds
	25,137	· ·
		Higher equity investment income due to rebalancing
	(5)	Lower than expected alternative investment income
	2,707	Other
detailed explanations along with commentary found	101,827	2018 GRA
in Volume II-Investments		
(4) Allocated Corporate Expenses	215,214	2017 GRA
(Normal Operations)	1,376	Higher than expected data processing
	506	Higher than expected postage
	983	Higher than expected salaries
	(1,875)	Lower then expected "Other" primarily stretch target
	497	Higher than expected regulatory appeal
	5,464	Amortization expense due to project timing
	(459)	Other
	221,706	2018 GRA
(4) Allocated Corporate Expenses	4,994	2017 GRA
(Initiatives Implementation)	(1,382)	Lower than expected salaries due to a change in accounting policy
	(815)	Lower then expected special services
	(634)	Lower then expected data processing
	281	other
	2,444	2018 GRA
(4) Allocated Corporate Expenses	3,487	2017 GRA
· ·	(710)	Lower then expected data processing
(Initiatives Ongoing)		Amortization expense due to project timing
· · ·	(1,934)	
· · ·	(1,934) (375)	Lower than expected salaries
· ·		

PF.6 STATEMENT OF OPERATIONS 2018/19 COMPARATIVE

	2017 GRA 2018/19F	2018 GRA 2018/19F	Inc (dec)	Ref.	Increase (Decrease)
\$ 000s, except where noted)	\$	\$	\$	_	` %
Net Premiums Written					
Motor Vehicles	1,020,825	1,025,482	4,657		0.46
Drivers	55,180	69,148	13,968		25.31
Reinsurance Ceded	(12,114)	(11,517)	597		(4.93)
Total Net Premiums Written	1,063,891	1,083,113	19,222	(1)	1.81
Net Premiums Earned					
Motor Vehicles	1,000,262	994,660	(5,602)		(0.56
Drivers	54,039	59,702	5,663		10.48
Reinsurance Ceded	(12,114)	(11,517)	597		(4.93
Total Net Premiums Earned	1,042,187	1,042,845	658		0.06
Service Fees & Other Revenues	25,122	24,328	(794)		(3.16
Total Earned Revenues	1,067,309	1,067,173	(136)		(0.01
Net Claims Incurred	842,119	855,821	13,702		1.63
(a) Claims Incurred - Interest rate impact	(78,787)	8,465	87,252		(110.74
Total Claims Incurred	763,332	864,286	100,954	(2)	13.23
Claims Expense	133,420	127 OOE	1 1/E	(4)	3.35
Road Safety/Loss Prevention		137,885	4,465 (1,055)	(4)	
-	14,145	13,090	(1,055)	(4)	(7.46
Total Claims Costs	910,897	1,015,261	104,364		11.46
Expenses					
Operating	82,683	74,921	(7,762)	(4)	(9.39
Commissions	40,125	40,593	468		1.17
Premium Taxes	31,629	31,631	2		0.01
Regulatory/Appeal	3,567	4,132	565	(4)	15.84
Total Expenses	158,004	151,277	(6,727)		(4.26
Underwriting Income (Loss)	(1,592)	(99,365)	(97,773)		6,141.52
Investment Income	86,030	78,109	(7,921)	(3)	(9.21
(b) Investment Income - Interest rate impact	(60, 365)	-	60,365	(-)	(100.00
Total Investment Income	25,665	78,109	52,444		204.34
Net Income (Loss) from Operations	24,073	(21,256)	(45,329)		(188.30
Allocated Corporate Expenses					
Claims Expense	133,420	137,885	4,465		3.35
Road Safety/Loss Prevention	14,145	13,090	(1,055)		(7.46
Operating	82,683	74,921	(7,762)		(9.39
Regulatory/Appeal	3,567	4,132	565		15.84
Total Allocated Corporate Expenses	233,815	230,028	(3,787)		(1.62
Allocated Corporate Expenses					
Normal Operations	224,029	222,267	(1,762)	(4)	(0.79
Initiatives Implementation	6,100	2,566	(3,534)	(4)	(57.93
Initiatives Ongoing	3,686	5,195	1,509	(4)	40.9
Total Allocated Corporate Expenses	233,815	230,028	(3,787)	(ד)	(1.62
otal net positive impact due to interest rate change	18,422	(8,465)	(26,887)		(145.95

Explanation of Significant Variances - 2018/19 Comparative

Ref. Category	(C\$ 000s)	Explanation
(1) Net Premiums Written	1,063,891	2017 GRA
	(17,433)	Lower starting base due to 2017/18 Rate increase differences
	27,445	Higher rate change due to 2.7% rate increase
	(2,747)	Lower than expected premium related to volume
	(2,517)	Lower motor vehicle premium upgrade due to less new vehicles
	(41)	Lower fleet rebate
	(50)	Lower Immobilizer discounts
	13,968	Higher driver premiums primarilary due to DSR impact
	597	Higher reinsurance and other
*detailed explanations along with commentary found in Volume II-Revenues	1,083,113	2018 GRA
(0)		
(2) Net Claims Incurred	763,332	2017 GRA
	74,499	Lower forecasted growth in interest rates
	19,058	Higher forecast for Physical Damage claims
	3,698	Higher forecast for PIPP and Liability claims
	12,688 973	Higher forecasted ILAE Higher forecasted ULAE
	(10,097)	Lower forecasted Write Down DPAC
	135	Other
*detailed explanations along with commentary found	864,286	2018 GRA
in Volume II-Claims Incurred	001,200	2010 01111
(3) Investment Income	25,665	2017 GRA
(c) III osulicin illoonie	60,365	Higher than expected ALM impact due to interest rate forecast
	2,765	Higher than expected interest income on marketable bonds
	(8,274)	Lower equity investment income
	(1,023)	Lower than expected alternative investment income
	(1,389)	Other
*detailed explanations along with commentary found	78,109	2018 GRA
in Volume II-Investments		
(4) Allocated Corporate Expenses	224,029	2017 GRA
(Normal Operations)	(1,008)	Lower than expected data processing
	(1,572)	Lower than expected furniture and equipment
	505	Higher than expected regulatory appeal
	5,328	Amortization expense due to project timing
	(2,251)	Lower then expected "Other" primarily stretch target
	(883)	Lower than expected special services
	(816)	Lower than expected safety loss prevention
	(435)	Lower than expected building expenses
	(630) 222,267	other 2018 GRA
(4) Allocated Corporate Expenses	6,100	2017 GRA
(Initiatives Implementation)	(1,263)	Lower than expected salaries due to a change in accounting policy
(adav es importendadi)	(1,456)	Lower than expected data processing
	(815)	Lower than expected data processing Lower than expected special services
	2,566	2018 GRA
(4) Allocated Corporate Expenses	3,686	2017 GRA
(Initiatives Ongoing)	1,036	Higher than expected salaries
	709	Higher than expected data processing
	(236)	other
*detailed explanations along with commentary found	5,195	2018 GRA
in Volume II-Expenses		

PUB (MPI) 1-8

Volume and Chapter:	II INV.14	Page No.:	70
Topic:	Interest Rate Forecasting		
Sub Topic:			
Issue:	Compliance Filing		

PREAMBLE TO IR (IF ANY):

QUESTION:

- a) Please provide an updated PF.1, PF.2, PF.3 and actuarial indicated rate (with supporting schedules) based on a 25-basis point increase in interest rates in 2017/18.
- b) Please provide an updated PF.1, PF.2, PF.3 and actuarial indicated rate (with supporting schedules) based on a 50-basis point increase in interest rates in 2017/18.
- c) Please provide an updated PF.1, PF.2, PF.3 and actuarial indicated rate (with supporting schedules) based on a 50-basis point increase in interest rates in 2017/18 and 50 basis point increase in interest rates in 2018/19.

RATIONALE FOR QUESTION:

To understand the impact of changing interest rate on actuarial indicated rate and forecasted financial results.

RESPONSE:

To model the requested changes in interest rates, we've assumed that the change occurs at the end of the year. For example, we've assumed that the 25-basis point increase in 2017/18 for question (a) occurred on March 1, 2018.

Further, to model the effect of the change to the overall required rate change, we've assumed that the only change is from the change in the projected duration weighted investment return of the fixed income portfolio as at March 1, 2018, which is used to determine rates.

- a) Please see <u>Appendix 1</u> for PF.1, PF.2 and PF.3. The change in interest rates increased the projected duration weighted investment return of the fixed income portfolio as at March 1, 2018 from 3.78% to 3.99%. This has the effect of reducing the overall required rate change from 2.7% to 2.3%.
- b) Please see <u>Appendix 2</u> for PF.1, PF.2 and PF.3. The change in interest rates increased the projected duration weighted investment return of the fixed income portfolio as at March 1, 2018 from 3.78% to 4.19%. This has the effect of reducing the overall required rate change from 2.7% to 1.9%.
- c) Please see <u>Appendix 3</u> for PF.1, PF.2 and PF.3. The change in interest rates increased the projected duration weighted investment return of the fixed income portfolio as at March 1, 2018 from 3.78% to 4.19%. This has the effect of reducing the overall required rate change from 2.7% to 1.9%.

PF.1 STATEMENT OF OPERATIONS - 2.7% - with 25 Basis Point increase in interest rates in 2017/18

Multi-year - Statement of Operations

PUB 1-8 a) +2.7% Rate Change with 25 Basis Point increase in interest rates in 2017/18

	ruary 28/29,	ary 28/29,					
C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
Motor Vehicles	886,998	958,740	958,740	1,025,482	1,068,082	1,112,891	1,158,599
Drivers	48,426	50,892	50,334	69,148	71,252	73,311	75,162
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,222)
Total Net Premiums Written	923,789	998,341	997,783	1,083,113	1,127,587	1,174,220	1,221,539
Net Premiums Earned							
Motor Vehicles	871,174	925,950	925,950	994,660	1,048,409	1,092,198	1,137,491
Drivers	47,606	49,543	49,265	59,702	70,196	72,277	74,233
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,222)
Total Net Premiums Earned	907,145	964,202	963,924	1,042,845	1,106,858	1,152,493	1,199,502
Service Fees & Other Revenues	20,748	22,204	22,204	24,328	26,431	28,532	30,849
Total Earned Revenues	927,893	986,406	986,128	1,067,173	1,133,289	1,181,025	1,230,351
Net Claims Incurred	872,119	843,373	813,236	854,632	909,684	955,961	1,006,600
(a) Claims Incurred - Interest Rate Impact	(12,084)	-	(112,608)	8,853	1,061	(529)	(1,496
Total Claims Incurred	860,035	843,373	700,628	863,485	910,745	955,432	1,005,104
Claims Expense	120,972	134,271	134,294	137,691	139,663	142,630	144,055
Road Safety/Loss Prevention	12,530	13,214	13,210	13,072	12,931	13,193	13,430
Total Claims Costs	993,537	990,858	848,132	1,014,248	1,063,339	1,111,255	1,162,589
Expenses							
Operating	72,785	72,596	72,563	74,825	75,381	77,172	79,194
Commissions	35,086	37,669	37,655	40,593	42,723	44,438	46,209
Premium Taxes	27,563	29,265	29,256	31,631	33,558	34,934	36,352
Regulatory/Appeal	4,889	4,056	4,054	4,132	4,217	4,302	4,389
Total Expenses	140,323	143,586	143,528	151,181	155,879	160,846	166,144
Underwriting Income (Loss)	(205,967)	(148,038)	(5,532)	(98,256)	(85,929)	(91,076)	(98,382)
Investment Income	101,645	102,478	101,815	81,120	83,758	86,983	90,189
(b) Investment Income - Interest Rate Impact	(18,748)	-	(32,236)	0	0	(0)	(0
Net Investment Income	82,897	102,478	69,579	81,120	83,758	86,983	90,189
Net Income (Loss) from Operations for Rate Setting	(123,070)	(50,953)	50,100	(26,660)	112	(579)	(2,157
Add: DPAC / Premium Deficiency adjustment		(5,393)	(13,947)	(9,524)	2,283	3,514	6,036
Net Income (Loss)	(123,070)	(45,560)	64,047	(17,136)	(2,171)	(4,093)	(8,193)
Total net Impact due to interest rate change (b) - (a)	(6,664)	-	80,372	(8,853)	(1,061)	529	1,496

PF.2 STATEMENT OF FINANCIAL POSITION - 2.7% - with 25 Basis Point increase in interest rates in 2017/18

Multi-year - Statement of Financial Position

PUB 1-8 a) +2.7% Rate Change with 25 Basis Point increase in interest rates in 2017/18

,	As at February 28/29,							
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022	
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F	
Assets								
Cash and cash equivalents	61,606	11,530	11,508	11,154	14,413	17,465	22,230	
Investments	2,189,534	2,303,479	2,285,286	2,371,455	2,464,737	2,562,429	2,659,660	
Investment property	35,615	35,906	35,939	37,794	37,869	37,783	36,995	
Due from other insurance companies	16	-	-	-	-	-	-	
Accounts receivable	355,389	334,196	334,047	358,907	372,893	387,219	401,795	
Deferred policy acquisition costs	-	-	5,105	16,557	15,504	13,284	8,568	
Reinsurers' share of unpaid claims	611	-	-	-	-	-	-	
Property and equipment	89,847	88,665	88,665	90,237	90,615	88,071	84,746	
Deferred development costs	72,866	69,306	69,306	69,017	73,083	74,387	72,653	
<u>.</u>	2,805,484	2,843,082	2,829,856	2,955,121	3,069,114	3,180,638	3,286,647	
Liabilities								
Due to other insurance companies	147	114	114	114	114	114	114	
Accounts payable and accrued liabilities	40,443	31,263	31,263	32,225	32,454	33,083	33,631	
Financing lease obligation	3,239	2,983	2,983	2,907	2,826	2,726	2,618	
Unearned premiums and fees	472,041	508,511	508,231	551,842	576,195	601,849	628,143	
Provision for employee current benefits	16,919	17,362	17,362	18,087	18,822	19,568	20,325	
Provision for employee future benefits	301,245	310,108	310,108	323,746	338,675	354,155	370,177	
Provision for unpaid claims	1,790,450	1,856,651	1,733,134	1,810,814	1,879,601	1,945,139	2,008,129	
<u> </u>	2,624,484	2,726,992	2,603,195	2,739,735	2,848,687	2,956,634	3,063,137	
Equity								
Retained Earnings	99,251	53,691	163,299	146,163	143,991	139,899	131,706	
Accumulated Other Comprehensive Income	81,749	62,399	63,361	69,224	76,436	84,106	91,806	
Total Equity	181,000	116,090	226,660	215,387	220,428	224,004	223,512	
Total Liabilities & Equity	2,805,484	2,843,082	2,829,855	2,955,122	3,069,115	3,180,638	3,286,649	

PF.3 STATEMENT OF CHANGES IN EQUITY - 2.7% - with 25 Basis Point increase in interest rates in 2017/18

Multi-year - Statement of Changes in Equity

PUB 1-8 a) +2.7% Rate Change with 25 Basis Point increase in interest rates in 2017/18

	For the Years Ended February,							
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022	
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F	
Total Equity								
Retained Earnings								
Beginning Balance	194,497	99,251	99,251	163,299	146,163	143,991	139,899	
Net Income (Loss) from annual operations	(123,070)	(45,560)	64,049	(17, 136)	(2,171)	(4,093)	(8,193)	
Transfer (to) / from Non-Basic Retained Earnings	27,824	-	-	-	-	-	-	
Total Retained Earnings	99,251	53,691	163,299	146, 163	143,991	139,899	131,706	
Accumulated Other Comprehensive Income								
Beginning Balance	36,503	81,749	81,749	63,361	69,224	76,436	84,106	
Other Comprehensive Income for the Year	45,246	(19,350)	(18,388)	5,863	7,212	7,670	7,701	
Total Accumulated Other Comprehensive Income	81,749	62,399	63,361	69,224	76,436	84,106	91,806	
Total Equity Balance	181,000	116,090	226,660	215,387	220,428	224,004	223,512	
Total Equity								
Rate Stabilization Reserve								
Retained Earnings	99,251	53,691	163,299	146, 163	143,991	139,899	131,706	
Accumululated Other Comprehensive Income	81,749	62,399	63,361	69,224	76,436	84,106	91,806	
Total Rate Stabilization Reserve	181,000	116,090	226,660	215,387	220,428	224,004	223,512	
Retained Earnings in excess of Rate Stabilization Reserve	_	-	_	_	_	_	_	
Total Equity Balance	181,000	116,090	226,660	215,387	220,428	224,004	223,512	
RATE STABILIZATION RESERVE TARGETS	_		_	_	_			
DCAT Total Equity Lower Target	181,000	181,000	181,000	181,000	181,000	181,000	181,000	
MCT Total Equity Upper Target	366,000	411,000	411,000	438,000	438,000	438,000	438,000	

PF.1 STATEMENT OF OPERATIONS - 2.7% - with 50 Basis Point increase in interest rates in 2017/18

Multi-year - Statement of Operations

PUB 1-8 b) +2.7% Rate Change with 50 Basis Point increase in interest rates in 2017/18

	For the Years Ended February 28/29,									
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022			
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F			
Motor Vehicles	886,998	958,740	958,740	1,025,482	1,068,082	1,112,891	1,158,599			
Drivers	48,426	50,892	50,334	69,148	71,252	73,311	75,162			
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,222)			
Total Net Premiums Written	923,789	998,341	997,783	1,083,113	1,127,587	1,174,220	1,221,539			
Net Premiums Earned										
Motor Vehicles	871,174	925,950	925,950	994,660	1,048,409	1,092,198	1,137,491			
Drivers	47,606	49,543	49,265	59,702	70,196	72,277	74,233			
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,222)			
Total Net Premiums Earned	907,145	964,202	963,924	1,042,845	1,106,858	1,152,493	1,199,502			
Service Fees & Other Revenues	20,748	22,204	22,204	24,328	26,431	28,532	30,849			
Total Earned Revenues	927,893	986,406	986,128	1,067,173	1,133,289	1,181,025	1,230,351			
Net Claims Incurred	872,119	843,373	811,490	853,411	908,575	954,894	1,005,485			
(a) Claims Incurred - Interest Rate Impact	(12,084)	-	(147,828)	9,330	108	(1,543)	(2,498)			
Total Claims Incurred	860,035	843,373	663,662	862,741	908,683	953,351	1,002,987			
Claims Expense	120,972	134,271	134,294	137,522	139,484	142,464	143,877			
Road Safety/Loss Prevention	12,530	13,214	13,210	13,057	12,914	13,177	13,412			
Total Claims Costs	993,537	990,858	811,166	1,013,320	1,061,081	1,108,992	1,160,276			
Expenses										
Operating	72,785	72,596	72,563	74,743	75,293	77,089	79,103			
Commissions	35,086	37,669	37,655	40,593	42,723	44,438	46,209			
Premium Taxes	27,563	29,265	29,256	31,631	33,558	34,934	36,352			
Regulatory/Appeal	4,889	4,056	4,054	4,132	4,216	4,302	4,389			
Total Expenses	140,323	143,586	143,528	151,099	155,790	160,763	166,053			
Underwriting Income (Loss)	(205,967)	(148,038)	31,434	(97,246)	(83,582)	(88,730)	(95,978)			
Investment Income	101,645	102,478	101,803	83,919	87,528	91,053	94,649			
(b) Investment Income - Interest Rate Impact	(18,748)	-	(62,827)	(0)	(0)	(0)	(0)			
Net Investment Income	82,897	102,478	38,976	83,919	87,528	91,053	94,649			
Net Income (Loss) from Operations for Rate Setting	(123,070)	(50,953)	54,717	(22,978)	6,129	5,727	4,505			
Add: DPAC / Premium Deficiency adjustment	-	(5,393)	(15,693)	(9,651)	2,183	3,404	5,834			
Net Income (Loss)	(123,070)	(45,560)	70,410	(13,327)	3,946	2,323	(1,329)			
Total net Impact due to interest rate change (b) - (a)	(6,664)	-	85,001	(9,330)	(108)	1,543	2,498			

PF.2 STATEMENT OF FINANCIAL POSITION - 2.7% - with 50 Basis Point increase in interest rates in 2017/18

Multi-year - Statement of Financial Position

PUB 1-8 b) +2.7% Rate Change with 50 Basis Point increase in interest rates in 2017/18

1 0D 1-0 D) 12.170 Nate Ghange with 30 Das	As at February 28/29,								
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022		
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F		
Assets									
Cash and cash equivalents	61,606	11,530	11,507	11,518	16,930	18,076	23,153		
Investments	2,189,534	2,303,479	2,254,675	2,343,539	2,438,542	2,542,528	2,644,316		
Investment property	35,615	35,906	35,938	37,791	37,864	37,775	36,987		
Due from other insurance companies	16	-	-	-	-	-	-		
Accounts receivable	355,389	334,196	334,047	358,907	372,893	387,219	401,795		
Deferred policy acquisition costs	-	-	6,852	18,431	17,479	15,370	10,856		
Reinsurers' share of unpaid claims	611	-	-	-	-	-	-		
Property and equipment	89,847	88,665	88,665	90,237	90,615	88,071	84,746		
Deferred development costs	72,866	69,306	69,306	69,038	73,117	74,431	72,702		
	2,805,484	2,843,082	2,800,990	2,929,461	3,047,440	3,163,470	3,274,555		
Liabilities									
Due to other insurance companies	147	114	114	114	114	114	114		
Accounts payable and accrued liabilities	40,443	31,263	31,263	32,225	32,454	33,083	33,631		
Financing lease obligation	3,239	2,983	2,983	2,907	2,826	2,726	2,618		
Unearned premiums and fees	472,041	508,511	508,231	551,842	576,195	601,849	628,143		
Provision for employee current benefits	16,919	17,362	17,362	18,087	18,822	19,568	20,325		
Provision for employee future benefits	301,245	310,108	310,108	323,746	338,675	354,155	370,177		
Provision for unpaid claims	1,790,450	1,856,651	1,697,914	1,774,977	1,841,804	1,905,372	1,966,447		
	2,624,484	2,726,992	2,567,975	2,703,898	2,810,890	2,916,867	3,021,455		
Equity									
Retained Earnings	99,251	53,691	169,662	156,335	160,279	162,602	161,274		
Accumulated Other Comprehensive Income	81,749	62,399	63,354	69,229	76,271	84,001	91,829		
Total Equity	181,000	116,090	233,016	225,564	236,550	246,604	253,103		
Total Liabilities & Equity	2,805,484	2,843,082	2,800,991	2,929,462	3,047,440	3,163,471	3,274,558		

PF.3 STATEMENT OF CHANGES IN EQUITY - 2.7% - with 50 Basis Point increase in interest rates in 2017/18

Multi-year - Statement of Changes in Equity

PUB 1-8 b) +2.7% Rate Change with 50 Basis Point increase in interest rates in 2017/18

,	For the Years Ended February,							
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022	
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F	
Total Equity								
Retained Earnings								
Beginning Balance	194,497	99,251	99,251	169,662	156,335	160,279	162,602	
Net Income (Loss) from annual operations	(123,070)	(45,560)	70,411	(13, 327)	3,944	2,323	(1,329)	
Transfer (to) / from Non-Basic Retained Earnings	27,824	-	-	-	-	-	-	
Total Retained Earnings	99,251	53,691	169,662	156,335	160,279	162,602	161,274	
Accumulated Other Comprehensive Income								
Beginning Balance	36,503	81,749	81,749	63,354	69,229	76,271	84,001	
Other Comprehensive Income for the Year	45,246	(19,350)	(18,395)	5,875	7,042	7,730	7,828	
Total Accumulated Other Comprehensive Income	81,749	62,399	63,354	69,229	76,271	84,001	91,829	
Total Equity Balance	181,000	116,090	233,016	225,564	236,550	246,604	253,103	
Total Equity								
Rate Stabilization Reserve								
Retained Earnings	99,251	53,691	169,662	156,335	160,279	162,602	161,274	
Accumululated Other Comprehensive Income	81,749	62,399	63,354	69,229	76,271	84,001	91,829	
Total Rate Stabilization Reserve	181,000	116,090	233,016	225,564	236,550	246,604	253,103	
Retained Earnings in excess of Rate Stabilization Reserve	-	-	-	-	-	-	-	
Total Equity Balance	181,000	116,090	233,016	225,564	236,550	246,604	253,103	
RATE STABILIZATION RESERVE TARGETS								
DCAT Total Equity Lower Target	181,000	181,000	181,000	181,000	181,000	181,000	181,000	
MCT Total Equity Upper Target	366,000	411,000	411,000	438,000	438,000	438,000	438,000	

PF.1 STATEMENT OF OPERATIONS - 2.7% - with 50 Basis Point increase in interest rates in 2017/18 and 2018/19

Multi-year - Statement of Operations

PUB 1-8 c) +2.7% Rate Change with 50 Basis Point increase in interest rates in 2017/18 and 2018/19

•	For the Years Ended February 28/29,						
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
Motor Vehicles	886,998	958,740	958,740	1,025,482	1,068,082	1,112,891	1,158,599
Drivers	48,426	50,892	50,334	69,148	71,252	73,311	75,162
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,222)
Total Net Premiums Written	923,789	998,341	997,783	1,083,113	1,127,587	1,174,220	1,221,539
Net Premiums Earned							
Motor Vehicles	871,174	925,950	925,950	994,660	1,048,409	1,092,198	1,137,491
Drivers	47,606	49,543	49,265	59,702	70,196	72,277	74,233
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,222)
Total Net Premiums Earned	907,145	964,202	963,924	1,042,845	1,106,858	1,152,493	1,199,502
Service Fees & Other Revenues	20,748	22,204	22,204	24,328	26,431	28,532	30,849
Total Earned Revenues	927,893	986,406	986,128	1,067,173	1,133,289	1,181,025	1,230,351
Net Claims Incurred	872,119	843,373	811,490	850,027	906,487	952,760	1,003,484
(a) Claims Incurred - Interest Rate Impact	(12,084)	-	(147,828)	(58,212)	134	(3,475)	(4,598)
Total Claims Incurred	860,035	843,373	663,662	791,815	906,621	949,285	998,886
Claims Expense	120,972	134,271	134,294	137,522	139,142	142,146	143,558
Road Safety/Loss Prevention	12,530	13,214	13,210	13,057	12,882	13,147	13,381
Total Claims Costs	993,537	990,858	811,166	942,394	1,058,645	1,104,578	1,155,825
Expenses							
Operating	72,785	72,596	72,563	74,743	75,124	76,931	78,943
Commissions	35,086	37,669	37,655	40,593	42,723	44,438	46,209
Premium Taxes	27,563	29,265	29,256	31,631	33,558	34,934	36,352
Regulatory/Appeal	4,889	4,056	4,054	4,132	4,216	4,301	4,388
Total Expenses	140,323	143,586	143,528	151,099	155,621	160,604	165,892
Underwriting Income (Loss)	(205,967)	(148,038)	31,434	(26,320)	(80,977)	(84,157)	(91,366)
Investment Income	101,645	102,478	101,803	83,894	92,559	97,989	102,706
(b) Investment Income - Interest Rate Impact	(18,748)	-	(62,827)	(53,416)	(0)	(0)	0
Net Investment Income	82,897	102,478	38,976	30,478	92,559	97,989	102,706
Net Income (Loss) from Operations for Rate Setting	(123,070)	(50,953)	54,717	(8,878)	13,596	16,878	16,873
Add: DPAC / Premium Deficiency adjustment	-	(5,393)	(15,693)	(13,036)	2,014	3,046	5,533
Net Income (Loss)	(123,070)	(45,560)	70,410	4,158	11,582	13,832	11,340
Total net Impact due to interest rate change (b) - (a)	(6,664)	-	85,001	4,795	(134)	3,475	4,598

PF.2 STATEMENT OF FINANCIAL POSITION - 2.7% - with 50 Basis Point increase in interest rates in 2017/18 and 2018/19

Multi-year - Statement of Financial Position

PUB 1-8 c) +2.7% Rate Change with 50 Basis Point increase in interest rates in 2017/18 and 2018/19

TOB 1-0 C) 12.170 Nate Change with 30 Bas	As at February 28/29,								
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022		
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F		
Assets									
Cash and cash equivalents	61,606	11,530	11,507	11,518	17,958	22,881	24,776		
Investments	2,189,534	2,303,479	2,254,675	2,290,079	2,389,455	2,496,931	2,610,470		
Investment property	35,615	35,906	35,938	37,790	37,857	37,764	36,973		
Due from other insurance companies	16	-	-	-	-	-	-		
Accounts receivable	355,389	334,196	334,047	358,907	372,893	387,219	401,795		
Deferred policy acquisition costs	-	-	6,852	21,816	21,033	19,281	15,068		
Reinsurers' share of unpaid claims	611	-	-	-	-	-	-		
Property and equipment	89,847	88,665	88,665	90,237	90,615	88,071	84,746		
Deferred development costs	72,866	69,306	69,306	69,038	73,142	74,474	72,755		
	2,805,484	2,843,082	2,800,990	2,879,385	3,002,953	3,126,621	3,246,583		
Liabilities									
Due to other insurance companies	147	114	114	114	114	114	114		
Accounts payable and accrued liabilites	40,443	31,263	31,263	32,225	32,454	33,083	33,631		
Financing lease obligation	3,239	2,983	2,983	2,907	2,826	2,726	2,618		
Unearned premiums and fees	472,041	508,511	508,231	551,842	576,195	601,849	628,143		
Provision for employee current benefits	16,919	17,362	17,362	18,087	18,822	19,568	20,325		
Provision for employee future benefits	301,245	310,108	310,108	323,746	338,675	354,155	370,177		
Provision for unpaid claims	1,790,450	1,856,651	1,697,914	1,707,436	1,772,369	1,832,227	1,889,503		
	2,624,484	2,726,992	2,567,975	2,636,357	2,741,455	2,843,722	2,944,511		
Equity									
Retained Earnings	99,251	53,691	169,662	173,820	185,402	199,234	210,574		
Accumulated Other Comprehensive Income	81,749	62,399	63,354	69,208	76,097	83,666	91,500		
Total Equity	181,000	116,090	233,016	243,029	261,498	282,900	302,074		
Total Liabilities & Equity	2,805,484	2,843,082	2,800,991	2,879,386	3,002,953	3,126,622	3,246,585		

PF.3 STATEMENT OF CHANGES IN EQUITY - 2.7% - with 50 Basis Point increase in interest rates in 2017/18 and 2018/19

Multi-year - Statement of Changes in Equity

PUB 1-8 c) +2.7% Rate Change with 50 Basis Point increase in interest rates in 2017/18 and 2018/19

	For the Years Ended February,							
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022	
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F	
Total Equity								
Retained Earnings								
Beginning Balance	194,497	99,251	99,251	169,662	173,820	185,402	199,234	
Net Income (Loss) from annual operations	(123,070)	(45,560)	70,411	4,158	11,581	13,832	11,340	
Transfer (to) / from Non-Basic Retained Earnings	27,824	-	-	-	-	-	-	
Total Retained Earnings	99,251	53,691	169,662	173,820	185,402	199,234	210,574	
Accumulated Other Comprehensive Income								
Beginning Balance	36,503	81,749	81,749	63,354	69,208	76,097	83,666	
Other Comprehensive Income for the Year	45,246	(19,350)	(18,395)	5,855	6,888	7,569	7,834	
Total Accumulated Other Comprehensive Income	81,749	62,399	63,354	69,208	76,097	83,666	91,500	
Total Equity Balance	181,000	116,090	233,016	243,029	261,498	282,900	302,074	
Total Equity								
Rate Stabilization Reserve								
Retained Earnings	99,251	53,691	169,662	173,820	185,402	199,234	210,574	
Accumululated Other Comprehensive Income	81,749	62,399	63,354	69,208	76,097	83,666	91,500	
Total Rate Stabilization Reserve	181,000	116,090	233,016	243,029	261,498	282,900	302,074	
Retained Earnings in excess of Rate Stabilization Reserve	-	-	-	-	-	-	-	
Total Equity Balance	181,000	116,090	233,016	243,029	261,498	282,900	302,074	
RATE STABILIZATION RESERVE TARGETS								
DCAT Total Equity Lower Target	181,000	181,000	181,000	181,000	181,000	181,000	181,000	
MCT Total Equity Upper Target	366,000	411,000	411,000	438,000	438,000	438,000	438,000	

PUB (MPI) 2-9

Volume and Chapter:	PUB (MPI) 1-8(a)	Page No.:	
Topic:	Interest Rate Forecasting		
Sub Topic:			
Issue:	Compliance Filing		

Preamble to IR (If Any):

Question:

Please provide an update to the responses to PUB (MPI) 1-8 to reflect current actual market interest rates.

Rationale for Question:

To understand the impact of changing interest rates on actuarial indicated rate and forecasted financial results.

RESPONSE:

Please see *Appendix 1* to this IR for *PF.1*, *PF.2* and *PF.3*.

The actual market interest rate as of July 31, 2017 is 2.06%, reflecting an increase of 0.42% from 1.64% when the 2018 GRA was filed. The change in the interest rate increased the projected duration weighted investment return of the fixed income portfolio as at March 1, 2018 from 3.78% to 4.12%. This has the effect of reducing the overall required rate change, at this time, from 2.7% to 2.0%.

MPI's proposal for the interest rate forecast is to update the rate indication using a naïve forecast (actuals) of GOC 10 year interest rate at November 30, 2017. Final rates would be approved by the PUB, based on this methodology, in the compliance

filing order. This approach will minimize interest rate forecasting risk to the extent possible, over the time horizon to March 1, 2018.

PF.1 STATEMENT OF OPERATIONS - 2.0% - with 2017/18 Q2 Naive Interest Rate Forecast

Multi-year - Statement of Operations

PUB 2-9 +2.0% Rate Change with 2017/18 Q2 Naiive Interest Rate Forecast

C\$ 000s, rounding may affect totals)	For the Years Ended February 28/29,							
,\$ 000s, rounding may anect totals)	2017	2018	2018	2019	2020	2021	2022	
ASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F	
Motor Vehicles	886,998	958,740	958,740	1,018,366	1,060,674	1,105,175	1,150,569	
Drivers	48,426	50,892	50,334	69,148	71,252	73,311	75,162	
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,22	
Total Net Premiums Written	923,789	998,341	997,783	1,075,997	1,120,179	1,166,504	1,213,50	
Net Premiums Earned								
Motor Vehicles	871,174	925,950	925,950	990,831	1,041,136	1,084,624	1,129,60	
Drivers	47,606	49,543	49,265	59,702	70,196	72,277	74,23	
Reinsurance Ceded	(11,635)	(11,291)	(11,291)	(11,517)	(11,747)	(11,982)	(12,22	
Total Net Premiums Earned	907,145	964,202	963,924	1,039,016	1,099,585	1,144,919	1,191,61	
Service Fees & Other Revenues	20,748	22,204	22,204	24,328	26,392	28,490	30,80	
Total Earned Revenues	927,893	986,406	986,128	1,063,344	1,125,977	1,173,409	1,222,42	
Net Claims Incurred	872,119	843,373	812,175	856,818	908,945	955,388	1,006,05	
(a) Claims Incurred - Interest Rate Impact	(12,084)	-	(134,677)	6,213	594	(520)	(1,49	
Total Claims Incurred	860,035	843,373	677,498	863,031	909,539	954,868	1,004,56	
Claims Expense	120,972	134,271	134,294	137,579	139,552	142,532	143,94	
Road Safety/Loss Prevention	12,530	13,214	13,210	13,062	12,920	13,184	13,41	
Total Claims Costs	993,537	990,858	825,002	1,013,672	1,062,011	1,110,584	1,161,92	
Expenses								
Operating	72,785	72,596	72,563	74,770	75,327	77,124	79,13	
Commissions	35,086	37,669	37,655	40,495	42,487	44,192	45,95	
Premium Taxes	27,563	29,265	29,256	31,516	33,340	34,707	36,11	
Regulatory/Appeal	4,889	4,056	4,054	4,132	4,216	4,302	4,38	
Total Expenses	140,323	143,586	143,528	150,913	155,370	160,325	165,59	
Underwriting Income (Loss)	(205,967)	(148,038)	17,598	(101,241)	(91,404)	(97,500)	(105,10	
Investment Income	101,645	102,478	96,156	84,401	86,847	89,791	93,31	
(b) Investment Income - Interest Rate Impact	(18,748)	-	(56,653)	0	0	(0)		
Net Investment Income	82,897	102,478	39,503	84,401	86,847	89,791	93,31	
Net Income (Loss) from Operations for Rate Setting	(123,070)	(50,953)	42,092	(23,494)	(2,299)	(4,097)	(5,66	
Net income (Loss) from Operations for Nate Setting		(5.000)	(1E 000)	(C CE 1)	2,258	2.640	6,11	
Add: DPAC / Premium Deficiency adjustment	-	(5,393)	(15,009)	(6,654)	2,230	3,612	0,11	
	(123,070)	(5,393) (45,560)	57,101	(16,840)	(4,557)	(7,709)	(11,78	

PF.2 STATEMENT OF FINANCIAL POSITION - 2.0% - with 2017/18 Q2 Naive Interest Rate Forecast

Multi-year - Statement of Financial Position

PUB 2-9 + 2.0% Rate Change with 2017/18 Q2 Naiive Interest Rate Forecast

•			As a	t February 28	/29,		
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
Assets							
Cash and cash equivalents	61,606	11,530	11,537	11,640	11,741	17,728	22,371
Investments	2,189,534	2,303,479	2,262,889	2,346,152	2,437,551	2,527,331	2,619,648
Investment property	35,615	35,906	35,939	37,767	37,816	37,702	36,887
Due from other insurance companies	16	-	-	-	-	-	-
Accounts receivable	355,389	334,196	334,047	357,008	370,916	385,160	399,652
Deferred policy acquisition costs	-	-	6,167	14,544	13,508	11,181	6,376
Reinsurers' share of unpaid claims	611	-	-	-	-	-	-
Property and equipment	89,847	88,665	88,665	90,237	90,615	88,071	84,746
Deferred development costs	72,866	69,306	69,306	69,031	73,106	74,415	72,685
	2,805,484	2,843,082	2,808,550	2,926,379	3,035,253	3,141,588	3,242,365
Liabilities							
Due to other insurance companies	147	114	114	114	114	114	114
Accounts payable and accrued liabilities	40,443	31,263	31,263	32,225	32,454	33,083	33,631
Financing lease obligation	3,239	2,983	2,983	2,907	2,826	2,726	2,618
Unearned premiums and fees	472,041	508,511	508,231	548,556	572,774	598,286	624,434
Provision for employee current benefits	16,919	17,362	17,362	18,087	18,822	19,568	20,325
Provision for employee future benefits	301,245	310,108	310,108	323,746	338,675	354,155	370,177
Provision for unpaid claims	1,790,450	1,856,651	1,711,065	1,785,421	1,853,028	1,917,904	1,980,270
	2,624,484	2,726,992	2,581,126	2,711,056	2,818,693	2,925,836	3,031,569
Equity							
Retained Earnings	99,251	53,691	156,352	139,512	134,953	127,244	115,461
Accumulated Other Comprehensive Income	81,749	62,399	71,071	75,811	81,608	88,508	95,335
Total Equity	181,000	116,090	227,423	215,323	216,561	215,753	210,797
Total Liabilities & Equity	2,805,484	2,843,082	2,808,549	2,926,379	3,035,254	3,141,589	3,242,366

PF.3 STATEMENT OF CHANGES IN EQUITY - 2.0% -with 2017/18 Q2 Naive Interest Rate Forecast

Multi-year - Statement of Changes in Equity

PUB 2-9 +2.0% Rate Change with 2017/18 Q2 Naiive Interest Rate Forecast

•			For the Ye	ears Ended	February,		
(C\$ 000s, rounding may affect totals)	2017	2018	2018	2019	2020	2021	2022
BASIC	2016/17A	2017/18B	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
Total Equity							
Retained Earnings							
Beginning Balance	194,497	99,251	99,251	156,352	139,512	134,953	127,244
Net Income (Loss) from annual operations	(123,070)	(45,560)	57,102	(16,841)	(4,558)	(7,709)	(11,783)
Transfer (to) / from Non-Basic Retained Earnings	27,824	-	-	-	-	-	-
Total Retained Earnings	99,251	53,691	156,352	139,512	134,953	127,244	115,461
Accumulated Other Comprehensive Income							
Beginning Balance	36,503	81,749	81,749	71,071	75,811	81,608	88,508
Other Comprehensive Income for the Year	45,246	(19,350)	(10,678)	4,740	5,797	6,901	6,827
Total Accumulated Other Comprehensive Income	81,749	62,399	71,071	75,811	81,608	88,508	95,335
Total Equity Balance	181,000	116,090	227,423	215,323	216,561	215,753	210,797
Total Equity							
Rate Stabilization Reserve							
Retained Earnings	99,251	53,691	156,352	139,512	134,953	127,244	115,461
Accumululated Other Comprehensive Income	81,749	62,399	71,071	75,811	81,608	88,508	95,335
Total Rate Stabilization Reserve	181,000	116,090	227,423	215,323	216,561	215,753	210,797
Retained Earnings in excess of Rate Stabilization Reserve	_	_	_	_	_	_	_
Total Equity Balance	181,000	116,090	227,423	215,323	216,561	215,753	210,797
RATE STABILIZATION RESERVE TARGETS							
DCAT Total Equity Lower Target	181,000	181,000	181,000	201,000*	201,000*	201,000*	201,000*
MCT Total Equity Upper Target	366,000	411,000	411,000	438,000	438,000	438,000	438,000

^{*} Revised based on 2018 GRA DCAT Results

Appendix 1: SUMMARY OF BASIC EXPENSES BY CATEGORY

Normal Operations

Line				Claims		ĺ			Operating		1			Road Safety		
No.	Expense	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F
1	(\$000's, except where noted)															
2	Compensation - Salaries	63,309	66,417	67,521	68,691	70,863	29,792	30,993	30,745	31,393	32,905	1,596	1,762	1,938	1,754	1,810
3	Compensation - Overtime	1,048	1,047	1,119	1,093	1,084	241	193	273	267	265	6	14	14	13	13
4	Compensation - Benefits	15,323	15,201	16,631	17,008	17,391	7,440	7,374	7,557	7,756	8,054	317	352	472	431	441
5	Compensation - H & E Tax	1,354	1,421	1,515	1,535	1,533	656	689	687	699	708	28	33	43	39	39
6	Subtotal - Compensation	81,034	84,086	86,786	88,327	90,871	38,129	39,249	39,262	40,115	41,932	1,947	2,161	2,467	2,237	2,303
7	Data Processing	11,246	12,945	13,190	13,086	13,135	5,077	6,008	5,622	5,586	5,646	3	11	18	-	-
8	Special Services	1,845	1,973	2,568	2,423	2,314	4,148	2,905	2,307	2,211	2,190	414	118	117	78	75
9	Building Expenses	6,709	6,239	7,401	6,711	6,646	2,717	2,591	2,930	2,663	2,669	99	99	127	101	100
10	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-	3,139	4,131	4,204	3,539	3,350
11	Telephone/Telecommunications	1,319	1,234	1,288	1,290	1,293	622	585	574	575	577	-	-	-	-	-
12	Public Information/Advertising	3	53	15	15	15	225	240	123	192	192	2,348	2,328	2,311	2,303	2,298
13	Printing, Stationery, Supplies	786	799	841	869	887	687	556	659	682	699	65	49	59	60	61
14	Postage	-	1	-	-	-	3,072	2,995	3,107	3,097	3,090	-	-	-	-	-
15	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Travel and Vehicle Expense	728	724	911	895	891	230	211	266	262	264	6	5	9	7	7
17	Driver Education Program	-	-	-	-	-	-	-	-	-	-	3,378	3,399	3,638	3,696	3,686
18	Grants in Lieu of Taxes	1,026	1,059	1,084	1,089	1,058	420	439	429	432	425	14	17	19	16	16
19	Furniture & Equipment	176	142	830	796	642	339	324	669	641	517	-	-	-	-	-
20	Merchant Fees & Bank Charges Other						7,570	8,186	9,022	9,355	9,777					
21		811	929	1,014	965	954	3,889	3,544	1,856	1,627	1,579	443	101	186	175	174
22	Subtotal - Other Expenses	24,649	26,098	29,142	28,139	27,835	28,996	28,584	27,564	27,323	27,625	9,909	10,258	10,688	9,975	9,767
23	Depreciation-Capital Assets	2,994	2,723	2,835	2,994	3,252	1,311	1,220	1,406	1,696	2,011	73	56	55	48	48
24	Amortization-Deferred Development	7,225	10,540	14,036	13,599	9,031	2,429	3,617	3,411	3,682	1,512	-	-	-	-	-
25	Total	115,902	123,447	132,799	133,059	130,989	70,865	72,670	71,643	72,816	73,080	11,929	12,475	13,210	12,260	12,118

26	Rounding may affect totals										
			Regu	latory Appea	I				Total		
	Expense	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F
27	(\$000's, except where noted)										
28	Compensation - Salaries	-	247	253	260	268	94,697	99,419	100,457	102,098	105,846
29	Compensation - Overtime	-	4	2	2	2	1,295	1,258	1,408	1,375	1,364
30	Compensation - Benefits	-	59	62	64	65	23,080	22,986	24,722	25,259	25,951
31	Compensation - H & E Tax	-	6	6	6	6	2,038	2,149	2,251	2,279	2,286
32	Subtotal - Compensation	-	316	323	332	341	121,110	125,812	128,838	131,011	135,447
33	Data Processing	-	-	-	-	-	16,326	18,964	18,830	18,672	18,781
34	Special Services	-	-	1	-	-	6,407	4,996	4,993	4,712	4,579
35	Building Expenses	-	-	7	5	5	9,525	8,929	10,465	9,480	9,420
36	Safety/Loss Prevention Programs	-	-	-	-	-	3,139	4,131	4,204	3,539	3,350
37	Telephone/Telecommunications	-	-	-	-	-	1,941	1,819	1,862	1,865	1,870
38	Public Information/Advertising	-	-	-	-	-	2,576	2,621	2,449	2,510	2,505
39	Printing, Stationery, Supplies	-	1	1	1	1	1,538	1,405	1,560	1,612	1,648
40	Postage	-	-	-	-	-	3,072	2,996	3,107	3,097	3,090
41	Regulatory/Appeal	3,675	4,555	3,717	3,789	3,865	3,675	4,555	3,717	3,789	3,865
42	Travel and Vehicle Expense	-	1	1	1	1	964	941	1,187	1,165	1,163
43	Driver Education Program	-	-	-	-	-	3,378	3,399	3,638	3,696	3,686
44	Grants in Lieu of Taxes	-	-	1	1	1	1,460	1,515	1,533	1,538	1,500
45	Furniture & Equipment	-	-	-	-	-	515	466	1,499	1,437	1,159
46	Merchant Fees & Bank Charges	-	-	-	-	-	7,570	8,186	9,022	9,355	9,777
47	Other	-	16	1	1	1	5,143	4,590	3,057	2,768	2,708

3,729

4,054

2

3,798

4,132

2

3,874

67,229

4,378

9,654 **202,371** 69,513

3,999

14,157

71,123

4,298

17,447

69,235

4,740

17,281

222,267

69,101

5,313

10,543 **220,404**

3,675

3,675

4,573

4,889

*Rounding may affect totals

Subtotal - Other Expenses

Depreciation-Capital Assets Amortization-Deferred Development Total

Initiatives

1

Line				Claims					Operating					Road Safety		
No.	Expense	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F
1	(\$000's, except where noted)															
2	Compensation - Salaries	957	(3,356)	(30)	(886)	(2,119)	21	(568)	(14)	(51)	(136)	1	-	-	-	-
3	Compensation - Overtime	99	2	` -	` -	,	29	` ź	. ,	-	` _	-	-	-	-	-
4	Compensation - Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Compensation - H & E Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Subtotal - Compensation	1,056	(3,354)	(30)	(886)	(2,119)	50	(566)	(14)	(51)	(136)	1		-	-	-
7	Data Processing	1,222	820	1,228	2,967	3,252	722	679	934	1,437	1,495	306	18	-	175	175
8	Special Services	312	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Building Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-	758	-	-	-	-
11	Telephone/Telecommunications	-	-	47	46	47	-	-	-	-	-	-	-	-	-	-
12	Public Information/Advertising	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Printing, Stationery, Supplies	3	12	-	-	-	-	-	-	-	-	35	35	-	-	-
14	Postage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Travel and Vehicle Expense	14	1	-	-	-	1	-	-	-	-	-	-	-	-	-
17	Driver Education Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Grants in Lieu of Taxes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Furniture & Equipment	13	-	130	-	-	-	-	-	-	-	-	1	-	-	-
20	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Other	89	39	105	-	-	1	2	-	-	-	-	1	-	-	-
22	Subtotal - Other Expenses	1,653	872	1,510	3,013	3,299	724	681	934	1,437	1,495	1,099	55		175	175
23	Depreciation-Capital Assets	4	7	15	22	22	-	-	-	-	-	-	-	-	44	43
24	Amortization-Deferred Development	-	-	-	2,677	7,650	-	-	-	719	1,030	-	-	-	611	611
25	Total	2,713	(2,475)	1,495	4,826	8,852	774	115	920	2,105	2,389	1,100	55	-	830	829

26 *Rounding may affect totals

			Regu	latory Appeal					Total		
	Expense	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F
27	(\$000's, except where noted)										
28	Compensation - Salaries	-		-	-	-	979	(3,924)	(44)	(937)	(2,255)
29	Compensation - Overtime	-	-	-	-	-	128	4	-		
30	Compensation - Benefits	-	-	-	-	-	-	-	-	-	-
31	Compensation - H & E Tax	-	-	-	-	-	-	-	-	-	-
32	Subtotal - Compensation	•	-	-	-	-	1,107	(3,920)	(44)	(937)	(2,255)
33	Data Processing	-	-	-	-	-	2,250	1,517	2,162	4,579	4,922
34	Special Services	-	-	-	-	-	312	-	-	-	-
35	Building Expenses	-	-	-	-	-	-	-	-	-	-
36	Safety/Loss Prevention Programs	-	-	-	-	-	758	-	-	-	-
37	Telephone/Telecommunications	-	-	-	-	-	-	-	47	46	47
38	Public Information/Advertising	-	-	-	-	-	-	-	-	-	-
39	Printing, Stationery, Supplies	-	-	-	-	-	38	47	-	-	-
40	Postage	-	-	-	-	-	-	-	-	-	-
41	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-
42	Travel and Vehicle Expense	-	-	-	-	-	15	1	-	-	-
43	Driver Education Program	-	-	-	-	-	-	-	-	-	-
44	Grants in Lieu of Taxes	-	-	-	-	-	-	-	-	-	-
45	Furniture & Equipment	-	-	_	-	-	13	1	130	_	-
46	Merchant Fees & Bank Charges	-		-	-	-	-		-	-	-
47	Other	-	-	-	-	-	90	42	105	-	-
48	Subtotal - Other Expenses		-	-			3,476	1,608	2,444	4,625	4,969
49	Depreciation-Capital Assets	-	-	-	-	-	4	7	15	66	65
50	Amortization-Deferred Development	-	-	-	-	-	-	-	-	4,007	9,291
51	Total			-		-	4,587	(2,305)	2,415	7,761	12,070
52	*Rounding may affect totals									•	

Note: The negative salaries in 2016/17 is attributed to an accounting policy change. The Corporation is now capitalizing (rather than expensing) all directly assigned internal employee costs provided the project meets the capitalization criterion.

Total

1

Line				Claims		ĺ			Operating		1		1	Road Safety		
No.	Expense	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F
1	(\$000's, except where noted)															
2	Compensation - Salaries	64,266	63,061	67,491	67,805	68,744	29,813	30,425	30,731	31,342	32,769	1,597	1,762	1,938	1,754	1,810
3	Compensation - Overtime	1,147	1,049	1,119	1,093	1,084	270	195	273	267	265	6	14	14	13	13
4	Compensation - Benefits	15,323	15,201	16,631	17,008	17,391	7,440	7,374	7,557	7,756	8,054	317	352	472	431	441
5	Compensation - H & E Tax	1,354	1,421	1,515	1,535	1,533	656	689	687	699	708	28	33	43	39	39
6	Subtotal - Compensation	82,090	80,732	86,756	87,441	88,752	38,179	38,683	39,248	40,064	41,796	1,948	2,161	2,467	2,237	2,303
7	Data Processing	12,468	13,765	14,418	16,053	16,387	5,799	6,687	6,556	7,023	7,141	309	29	18	175	175
8	Special Services	2,157	1,973	2,568	2,423	2,314	4,148	2,905	2,307	2,211	2,190	414	118	117	78	75
9	Building Expenses	6,709	6,239	7,401	6,711	6,646	2,717	2,591	2,930	2,663	2,669	99	99	127	101	100
10	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-	3,897	4,131	4,204	3,539	3,350
11	Telephone/Telecommunications	1,319	1,234	1,335	1,336	1,340	622	585	574	575	577	-	-	-	-	-
12	Public Information/Advertising	3	53	15	15	15	225	240	123	192	192	2,348	2,328	2,311	2,303	2,298
13	Printing, Stationery, Supplies	789	811	841	869	887	687	556	659	682	699	100	84	59	60	61
14	Postage	-	1	-	-	-	3,072	2,995	3,107	3,097	3,090	-	-	-	-	-
15	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Travel and Vehicle Expense	742	725	911	895	891	231	211	266	262	264	6	5	9	7	7
17	Driver Education Program	-	-	-	-	-	-	-	-	-	-	3,378	3,399	3,638	3,696	3,686
18	Grants in Lieu of Taxes	1,026	1,059	1,084	1,089	1,058	420	439	429	432	425	14	17	19	16	16
19	Furniture & Equipment	189	142	960	796	642	339	324	669	641	517	-	1	-	-	-
20	Merchant Fees & Bank Charges	-	-	-	-	-	7,570	8,186	9,022	9,355	9,777	-	-	-	-	-
21	Other	900	968	1,119	965	954	3,889	3,546	1,856	1,627	1,579	443	102	186	175	174
22	Subtotal - Other Expenses	26,302	26,970	30,652	31,152	31,134	29,719	29,265	28,498	28,760	29,120	11,008	10,313	10,688	10,150	9,942
23	Depreciation-Capital Assets	2,998	2,730	2,850	3,016	3,274	1,311	1,220	1,406	1,696	2,011	73	56	55	92	91
24	Amortization-Deferred Development	7,225	10,540	14,036	16,276	16,681	2,429	3,617	3,411	4,401	2,542	-	-	-	611	611
25	Total	118,615	120,972	134,294	137,885	139,841	71,638	72,785	72,563	74,921	75,469	13,029	12,530	13,210	13,090	12,947
0.0	*Dounding may offeet totals															

*Rounding may affect totals

			Regul	latory Appea	l	1	Total				
	Expense	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F
27	(\$000's, except where noted)										
28	Compensation - Salaries		247	253	260	268	95,676	95,495	100,413	101,161	103,591
29	Compensation - Overtime	-	4	2	2	2	1,423	1,262	1,408	1,375	1,364
30	Compensation - Benefits	-	59	62	64	65	23,080	22,986	24,722	25,259	25,951
31	Compensation - H & E Tax	-	6	6	6	6	2,038	2,149	2,251	2,279	2,286
32	Subtotal - Compensation	-	316	323	332	341	122,217	121,892	128,794	130,074	133,192
33	Data Processing	-	-	-	-	-	18,576	20,481	20,992	23,251	23,703
34	Special Services	-	-	1	-	-	6,719	4,996	4,993	4,712	4,579
35	Building Expenses	-	-	7	5	5	9,525	8,929	10,465	9,480	9,420
36	Safety/Loss Prevention Programs	-	-	-	-	-	3,897	4,131	4,204	3,539	3,350
37	Telephone/Telecommunications	-	-	-	-	-	1,941	1,819	1,909	1,911	1,917
38	Public Information/Advertising	-	-	-	-	-	2,576	2,621	2,449	2,510	2,505
39	Printing, Stationery, Supplies	-	1	1	1	1	1,576	1,452	1,560	1,612	1,648
40	Postage	-	-	-	-	-	3,072	2,996	3,107	3,097	3,090
41	Regulatory/Appeal	3,675	4,555	3,717	3,789	3,865	3,675	4,555	3,717	3,789	3,865
42	Travel and Vehicle Expense	-	1	1	1	1	979	942	1,187	1,165	1,163
43	Driver Education Program	-	-	-	-	-	3,378	3,399	3,638	3,696	3,686
44	Grants in Lieu of Taxes	-	-	1	1	1	1,460	1,515	1,533	1,538	1,500
45	Furniture & Equipment	-	-	-	-	-	528	467	1,629	1,437	1,159
46	Merchant Fees & Bank Charges	-	-	-	-	-	7,570	8,186	9,022	9,355	9,777
47	Other	-	16	1	1	1	5,232	4,632	3,162	2,768	2,708
48	Subtotal - Other Expenses	3,675	4,573	3,729	3,798	3,874	70,704	71,121	73,567	73,860	74,070
49	Depreciation-Capital Assets	-	-	2	2	2	4,382	4,006	4,313	4,806	5,378
50	Amortization-Deferred Development	-	-	-	-	-	9,654	14,157	17,447	21,288	19,834
51	Total	3,675	4,889	4,054	4,132	4,217	206,957	211,176	224,121	230,028	232,474
52	*Rounding may affect totals										

Manitoba Public Insurance Page 3

Appendix 2: 10-YEAR SUMMARY BASIC TOTAL EXPENSES BY CATEGORY

Line						Claims E	Expenses				
No.	Expense	2012/13A	2013/14A	2014/15A	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
	(\$000's, except where noted)										
1	Compensation - Salaries	57,221	58,886	61,090	64,266	63,061	67,491	67,805	68,744	70,406	72,033
2	Compensation - Overtime	1,413	1,911	1,389	1,147	1,049	1,119	1,093	1,084	1,117	1,138
3	Compensation - Benefits	13,359	13,294	13,448	15,323	15,201	16,631	17,008	17,391	17,972	18,548
4	Compensation - H & E Tax	1,223	1,209	1,271	1,354	1,421	1,515	1,535	1,533	1,568	1,600
5	Subtotal - Compensation	73,216	75,300	77,198	82,090	80,732	86,756	87,441	88,752	91,063	93,319
6	Data Processing	12,083	14,650	13,274	12,468	13,765	14,418	16,053	16,387	16,413	16,801
7	Special Services	2,434	2,287	2,200	2,157	1,973	2,568	2,423	2,314	2,360	2,408
8	Building Expenses	5,166	6,315	6,523	6,709	6,239	7,401	6,711	6,646	6,797	6,938
9	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-
10	Telephone/Telecommunications	1,610	1,742	1,387	1,319	1,234	1,335	1,336	1,340	1,371	1,397
11	Public Information/Advertising	13	55	17	3	53	15	15	15	15	16
12	Printing, Stationery, Supplies	811	996	769	789	811	841	869	887	907	926
13	Postage	1,522	1,581	-	-	1	-	-	-	-	-
14	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-
15	Travel and Vehicle Expense	721	820	758	742	725	911	895	891	912	930
16	Driver Education Program	-	-	-	-	-	-	-	-	-	-
17	Grants in Lieu of Taxes	903	939	966	1,026	1,059	1,084	1,089	1,058	1,083	1,105
18	Furniture & Equipment	722	604	471	189	142	960	796	642	657	670
19	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-
20	Other	1,023	922	443	900	968	1,119	965	954	975	997
21	Subtotal - Other Expenses	27,008	30,911	26,808	26,302	26,970	30,652	31,152	31,134	31,490	32,188
22	Depreciation-Capital Assets	3,338	3,359	3,384	2,998	2,730	2,850	3,016	3,274	3,548	3,818
23	Amortization-Deferred Development	4,975	4,982	9,188	7,225	10,540	14,036	16,276	16,681	16,710	14,899
24	Subtotal - Depreciation / Amortization	8,313	8,341	12,572	10,223	13,270	16,886	19,292	19,955	20,258	18,717
25	Total Expenses	108,537	114,552	116,578	118,615	120,972	134,294	137,885	139,841	142,811	144,224

Line						Operating	Expenses				
No.	Expense	2012/13A	2013/14A	2014/15A	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
	(\$000's, except where noted)										
26	Compensation - Salaries	26,749	28,308	29,533	29,813	30,425	30,731	31,342	32,769	33,590	34,358
27	Compensation - Overtime	391	520	354	270	195	273	267	265	273	278
28	Compensation - Benefits	6,102	6,569	6,769	7,440	7,374	7,557	7,756	8,054	8,335	8,606
29	Compensation - H & E Tax	573	597	639	656	689	687	699	708	725	741
30	Subtotal - Compensation	33,815	35,994	37,295	38,179	38,683	39,248	40,064	41,796	42,923	43,983
31	Data Processing	6.906	7.767	7.440	5.799	6.687	6,556	7.023	7.141	7.142	7,314
32	Special Services	2.331	2,677	3.258	4.148	2,905	2.307	2.211	2.190	2,245	2,294
33	Building Expenses	2,075	2,643	2,755	2,717	2,591	2,930	2,663	2,669	2,734	2,791
34	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-
35	Telephone/Telecommunications	656	846	680	622	585	574	575	577	590	602
36	Public Information/Advertising	578	405	470	225	240	123	192	192	196	200
37	Printing, Stationery, Supplies	626	751	667	687	556	659	682	699	715	730
38	Postage	950	1,050	2,945	3,072	2,995	3,107	3,097	3,090	3,161	3,227
39	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-
40	Travel and Vehicle Expense	318	349	295	231	211	266	262	264	271	277
41	Driver Education Program	-	-	-	-	-	-	-	-	-	-
42	Grants in Lieu of Taxes	367	395	416	420	439	429	432	425	436	444
43	Furniture & Equipment	548	456	330	339	324	669	641	517	529	540
44	Merchant Fees & Bank Charges	6,320	6,671	7,339	7,570	8,186	9,022	9,355	9,777	9,973	10,173
45	Other	3,977	3,632	4,004	3,889	3,546	1,856	1,627	1,579	1,616	1,649
46	Subtotal - Other Expenses	25,652	27,642	30,598	29,719	29,265	28,498	28,760	29,120	29,608	30,241
47	Depreciation-Capital Assets	1,446	1,510	1,533	1,311	1,220	1,406	1,696	2,011	2,256	2,494
48	Amortization-Deferred Development	2,821	2,836	4,857	2,429	3,617	3,411	4,401	2,542	2,475	2,559
49	Subtotal - Depreciation / Amortization	4,267	4,346	6,390	3,740	4,837	4,817	6,097	4,553	4,731	5,053
50	Total Expenses	63.734	67.982	74.283	71.638	72.785	72.563	74.921	75.469	77.262	79,277

Line						Road Safe	ty Expenses				
No.	Expense	2012/13A	2013/14A	2014/15A	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
	(\$000's, except where noted)										
1	Compensation - Salaries	1,515	1,407	1,220	1,597	1,762	1,938	1,754	1,810	1,854	1,896
2	Compensation - Overtime	22	19	15	6	14	14	13	13	13	14
3	Compensation - Benefits	407	311	286	317	352	472	431	441	456	470
4	Compensation - H & E Tax	32	28	27	28	33	43	39	39	40	40
5	Subtotal - Compensation	1,976	1,765	1,548	1,948	2,161	2,467	2,237	2,303	2,363	2,420
6	Data Processing	303	59	102	309	29	18	175	175	175	174
7	Special Services	92	102	146	414	118	117	78	75	76	78
8	Building Expenses	75	91	95	99	99	127	101	100	102	105
9	Safety/Loss Prevention Programs	5,175	4,963	3,725	3,897	4,131	4,204	3,539	3,350	3,404	3,456
10	Telephone/Telecommunications	20	-	-	-	-	-	-	-	-	-
11	Public Information/Advertising	1,711	2,023	1,947	2,348	2,328	2,311	2,303	2,298	2,351	2,400
12	Printing, Stationery, Supplies	57	51	41	100	84	59	60	61	63	64
13	Postage	44	29	-	-	-	-	-	-	-	-
14	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-
15	Travel and Vehicle Expense	14	12	14	6	5	9	7	7	7	7
16	Driver Education Program	3,103	3,200	3,256	3,378	3,399	3,638	3,696	3,686	3,772	3,851
17	Grants in Lieu of Taxes	12	12	13	14	17	19	16	16	16	17
18	Furniture & Equipment	3	8	1	-	1	-	-	-	-	-
19	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-
20	Other	294	371	367	443	102	186	175	174	179	183
21	Subtotal - Other Expenses	10,903	10,921	9,707	11,008	10,313	10,688	10,150	9,942	10,145	10,335
					·						
22	Depreciation-Capital Assets	228	129	104	73	56	55	92	91	91	81
23	Amortization-Deferred Development	-	-	-	-	-	-	611	611	611	611
24	Subtotal - Depreciation / Amortization	228	129	104	73	56	55	703	702	702	692
25	Total Expenses	13,107	12,815	11,359	13,029	12,530	13,210	13,090	12,947	13,210	13,447

Line					Re	egulatory/Ap	peal Expens	es			
No.	Expense	2012/13A	2013/14A	2014/15A	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
	(\$000's, except where noted)										
26	Compensation - Salaries	-	-	-	-	247	253	260	268	273	278
27	Compensation - Overtime	-	-	-	-	4	2	2	2	2	2
28	Compensation - Benefits	-	-	-	-	59	62	64	65	67	69
29	Compensation - H & E Tax	-	-	-	-	6	6	6	6	6	6
30	Subtotal - Compensation	-	-	-	-	316	323	332	341	348	355
31	Data Processing	-	-	-	-	-	-	-	-	-	-
32	Special Services	-	99	-	-	-	1	-	-	-	-
33	Building Expenses	-	-	-	-	-	7	5	5	5	6
34	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-
35	Telephone/Telecommunications	-	-	-	-	-	-	-	-	-	-
36	Public Information/Advertising	-	-	-	-	-	-	-	-	-	-
37	Printing, Stationery, Supplies	-	-	-	-	1	1	1	1	1	1
38	Postage	-	-	-	-	-	-	-	-	-	-
39	Regulatory/Appeal	3,392	3,667	3,935	3,675	4,555	3,717	3,789	3,865	3,943	4,021
40	Travel and Vehicle Expense	-	-	-	-	1	1	1	1	1	2
41	Driver Education Program	-	-	-	-	-	-	-	-	-	-
42	Grants in Lieu of Taxes	-	-	-	-	-	1	1	1	1	1
43	Furniture & Equipment	-	-	-	-	-	-	-	-	-	-
44	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-
45	Other	-	-	-	-	16	1	1	1	1	1
46	Subtotal - Other Expenses	3,392	3,766	3,935	3,675	4,573	3,729	3,798	3,874	3,952	4,032
47	Depreciation-Capital Assets						2	2	2	2	2
48	Amortization-Deferred Development	-		-	-	-					
49	Subtotal - Depreciation / Amortization						2	2	2	2	2
	2										
50	Total Expenses	3,392	3,766	3,935	3,675	4,889	4,054	4,132	4,217	4,302	4,389

Line						Total E	xpenses				
No.	Expense	2012/13A	2013/14A	2014/15A	2015/16A	2016/17A	2017/18FB	2018/19F	2019/20F	2020/21F	2021/22F
	(\$000's, except where noted)										
1	Compensation - Salaries	85,485	88,602	91,843	95,676	95,495	100,413	101,161	103,591	106,123	108,565
2	Compensation - Overtime	1,826	2,450	1,758	1,423	1,262	1,408	1,375	1,364	1,405	1,432
3	Compensation - Benefits	19,868	20,174	20,503	23,080	22,986	24,722	25,259	25,951	26,830	27,693
4	Compensation - H & E Tax	1,828	1,834	1,937	2,038	2,149	2,251	2,279	2,286	2,339	2,387
5	Subtotal - Compensation	109,007	113,060	116,041	122,217	121,892	128,794	130,074	133,192	136,697	140,077
6	Data Processing	19,292	22,476	20,816	18,576	20,481	20,992	23,251	23,703	23,730	24,289
7	Special Services	4,857	5,165	5,604	6,719	4,996	4,993	4,712	4,579	4,681	4,780
8	Building Expenses	7,316	9,049	9,373	9,525	8,929	10,465	9,480	9,420	9,638	9,840
9	Safety/Loss Prevention Programs	5,175	4,963	3,725	3,897	4,131	4,204	3,539	3,350	3,404	3,456
10	Telephone/Telecommunications	2,286	2,588	2,067	1,941	1,819	1,909	1,911	1,917	1,961	1,999
11	Public Information/Advertising	2,302	2,483	2,434	2,576	2,621	2,449	2,510	2,505	2,562	2,616
12	Printing, Stationery, Supplies	1,494	1,798	1,477	1,576	1,452	1,560	1,612	1,648	1,686	1,721
13	Postage	2,516	2,659	2,945	3,072	2,996	3,107	3,097	3,090	3,161	3,227
14	Regulatory/Appeal	3,392	3,667	3,935	3,675	4,555	3,717	3,789	3,865	3,943	4,021
15	Travel and Vehicle Expense	1,053	1,180	1,067	979	942	1,187	1,165	1,163	1,191	1,216
16	Driver Education Program	3,103	3,200	3,256	3,378	3,399	3,638	3,696	3,686	3,772	3,851
17	Grants in Lieu of Taxes	1,282	1,346	1,395	1,460	1,515	1,533	1,538	1,500	1,536	1,567
18	Furniture & Equipment	1,273	1,068	802	528	467	1,629	1,437	1,159	1,186	1,210
19	Merchant Fees & Bank Charges	6,320	6,671	7,339	7,570	8,186	9,022	9,355	9,777	9,973	10,173
20	Other	5,294	4,926	4,815	5,232	4,632	3,162	2,768	2,708	2,771	2,830
21	Subtotal - Other Expenses	66,955	73,239	71,050	70,704	71,121	73,567	73,860	74,070	75,195	76,796
22	Depreciation-Capital Assets	5,012	4,998	5,021	4,382	4,006	4,313	4,806	5,378	5,897	6,395
23	Amortization-Deferred Development	7,796	7,818	14,045	9,654	14,157	17,447	21,288	19,834	19,796	18,069
24	Subtotal - Depreciation / Amortization	12,808	12,816	19,066	14,036	18,163	21,760	26,094	25,212	25,693	24,464
0.5	Total Foresses	400 770	400 445	000 455	000 057	044.470	004.404	000.000	000 474	007.565	044.007
25	Total Expenses	188,770	199,115	206,155	206,957	211,176	224,121	230,028	232,474	237,585	241,337

PUB (MPI) 1-41

Volume and Chapter:	I OV.2.2	Page No.:	14
Topic:	Investment Income		
Sub Topic:	Corporate Bonds		
Issue:	ALM		

Preamble to IR (If Any):

The allocation of corporate bonds represents 18% of the total investment portfolio, or 27% allocation to the marketable bond portfolio, and is equivalent to approximately \$478 million.

It was assumed that the corporate bond portfolio would match the composition of the investment grade long-term Canadian corporate bond market, which is approximately 60% "A" rated bonds and 40% "BBB" rated bonds.

MPI has changed its Investment Policy Statement to allow between 5% to 10% of the investment portfolio in Corporate Bonds and has indicated that the current plan to increase the allocation of corporate bonds to 18% of the total portfolio has not been approved by the Minister of Finance.

Question:

- a) Please indicate when the corporation has sought/will seek approval for the increase in the allocation to Corporate Bonds.
- b) Please indicate to what extent MPI has invested in Corporate Bonds and indicate the composition of those bonds by bond rating.
- c) Please discuss the implications related to risk through the investment in bonds that are rated below "A".

Rationale for Question:

To understand the impact of interest rate changes on Basic.

RESPONSE:

- a) The strategy to increase the allocation of corporate bonds has been approved in principle by the Investment Committee of the MPI Board subject to necessary due diligence. The approval in principle is also contingent on having a sufficient capital reserve and approval of actuarial indicated rates without offset by investment income generated from the RSR. Absent these two conditions, the MPI Board of Directors reserves the right to revisit the strategy. There is presently no timeline for the Minister's approval.
- b) MPI has invested in corporate bonds for a number of years. However, the allocation to that category has been relatively small. As of June 30, 2017, the allocation to corporate bonds was \$57.2 million (3.05% of the fixed income portfolio or 2.10% of the total investment portfolio). The composition of the corporate bond portfolio by credit rating is shown in Figure 1 below.

Figure 1: Corporate Bond Composition by Credit Rating

	Market Values (\$M)	Weights
AAA	15.0	26%
AA	11.5	20%
Α	30.8	54%
Total	57.2	100%

c) The issuers of bonds rated below "A" have less capacity to meet their financial commitments during adverse circumstances than issuers in higher rated categories. As a result, default rates tend to be higher for the lower rated categories. According to Moody's, default rates for Canadian corporate bonds rated "A" or higher were 0% from 1989 to 2013. However, "BBB" rated bonds had default rates of 2.56% in the year 2000 and 4.37% in the year 2002. In all other years from 1989 to 2013, "BBB" rated bonds had zero default rates.

In terms of credit loss rates, as there has been no Canadian defaults in the "AAA" to "A" rating categories, the average one-year loss rates for Canadian issuers holding these ratings were zero from 1989 to 2013. For "BBB" rated bonds, the average one-year loss rate was slightly higher at 0.2% during the same period. Credit loss rates are lower than default rates as they reflect the fact that when an issuer defaults, the recovery rate from the issuer is often greater than zero.

PUB (MPI) 2-24

Volume and Chapter:	PUB (MPI) 1-41	Page No.:	
Topic:	Investment Income		
Sub Topic:	Corporate Bonds		
Issue:	ALM		

Preamble to IR (If Any):

Question:

- a) Please explain why the strategy to invest in corporate bonds is predicated on each of the two conditions cited.
- b) Please provide an update to the corporate bond composition by credit rating relative to target weighting and indicate whether the Corporation will meet its target weighting in 2017/18.
- c) Please provide the supporting calculation for the \$75.6 million adjustment to claims incurred predicated on the full investment in corporate bonds in 2017/18.
- d) Is it the Corporation's intent to invest in Corporate Bonds below an A rating, and if so, please discuss the risk / reward trade-off the Corporation is making by such investments?
- e) Please explain the Corporation's assumed mix of Corporate Bonds (including 40% BBB rated) for forecasting purposes in light of the Corporate Bonds invested in as of June 30, 2017.

Rationale for Question:

To understand the impact of interest rate changes on Basic.

RESPONSE:

a) MPI would be willing to take on the additional investment risk in corporate bonds provided there is sufficient capital to absorb any potential negative return. This means first, that there must be an adequate range to the Rate Stabilization Reserve (RSR) to ensure that total equity will not be prematurely rebated. Second, the total equity balance must be replenished, in part through the income generated from the investments associated with the RSR, to an optimal level within the lower and upper Dynamic Capital Adequacy Test (DCAT) limits. Both of these conditions are important to fulfill MPI's goals of minimizing the risk of potential rate shock and delivering MPI's mandate.

The purchase of approximately \$427 million in corporate bonds is intended to produce a higher investment return than is currently being attained. However, with the higher return there is a greater investment risk. Prior to assuming this greater investment risk the Board of Directors, must be satisfied there is a sufficient capital reserve to withstand potential risks.

The reason the approval of actuarial indicated rates without offset by investment income generated from the RSR is a requirement is twofold. The first part is the greater risk that the investment income will not be generated, which ties into the second part that there is a greater risk that anticipated investment income used to reduce the premiums required to cover the costs of the policies will not be attained. The result being a greater risk of a higher premium deficiency when anticipated earnings from riskier investments are used as a justification for reducing actuarial indicated rates.

b) The corporate bond composition by credit rating as at July 31, 2017 is shown in the figure below. MPI will not reach the 60/40 forecasted target weights for A and BBB rated bonds in the current fiscal year (2017/18). MPI will reach the target weights in 2018/19.

Line No.	Credit Rating (by S&P)	Market Value (\$)	Weights (%)
1	AAA	14,305,460	25.9%
2	AA+	-	0.0%
3	AA	-	0.0%
4	AA-	2,650,980	4.8%
5	A+	11,319,690	20.5%
6	Α	26,928,808	48.8%
7	Total	55,204,938	100.0%

Figure 1: Corporate Bonds: Credit Composition July 31, 2017

- c) The purchase of corporate bonds would increase the duration weighted interest rates used to discount claim liabilities from 3.39% on February 28, 2017 to 3.78% on February 28, 2018. This increase is due to the 18% allocation to corporate bonds as corporate bonds have a higher yield than provincial bonds, resulting in a 50 bps higher overall marketable bond yield. This increase creates an interest rate impact on net claims incurred of \$75.6 million in 2017/18.
- d) Yes, MPI intends to invest in corporate bonds rated below an A rating, and will consider bonds as low as BBB- for its portfolio. According to FTSE/TMX Global Debt Capital Markets, the yield on long-term BBB corporate bonds at February 28, 2017 was 4.37%, which is 58 basis points higher than the yield on A corporate bonds, 152 bps higher than AAA rated bonds and 209 bps higher than Federal bonds (all long-term). According to Moody's Investor Services, the average one-year credit loss rates (product of default frequency and loss severity) for BBB corporates from 1989-2013 was 0.20%, while for A and higher rated bonds it was zero.
- e) There is no relationship between the mix of corporate bonds currently within MPI's portfolio and the assumed mix of corporate bonds for forecasting purposes. The assumed mix was based upon the market weights for A and BBB rated corporate bonds as at February 28, 2017 as per FTSE/TMX Global Debt Capital Markets. We assumed that the bond manager would purchase corporate bonds in proportion to their relative availability based upon the total market capitalization of each credit rating category (as published by FTSE/TMX). The relative weights can be seen below:

Figure 2: Credit Rating Weighting of Corporate Bonds at February 28, 2017

	_	Weight Within			
Line		Overall	Corporate		
No.	Long-Term	Bond Market	Bond Market		
1	Corporate AAA/AA	0.30%	1.30%		
2	Corporate A	13.83%	59.79%		
3	Corporate BBB	9.00%	38.91%		
4	Total	23.13%	100.00%		