



ONTARIO RISK SHARING POOL

JULY 2020 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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ACTUARIAL HIGHLIGHTS**RSP ONTARIO****OPERATIONAL REPORT****JULY 2020**

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1 Summary

Key Points

- (a) The loss ratios currently being used include an initial assessment of the incurred impacts associated with the COVID-19 pandemic, with a further review and assessment to be included with the RSP 2020 Q2 actuarial valuation update (as at June 2020).

1.1 Valuation Schedule (Fiscal Year 2020)

The July 2020 Operational Report leverages actuarial assumptions consistent with last month (that is, it does not reflect the results of an updated valuation). The following table summarizes the valuation implementations scheduled for fiscal year 2020.

ONTARIO RISK SHARING POOL FISCAL YEAR 2020 – SCHEDULE OF VALUATIONS			
Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep. 30, 2019 (completed)	1.41% mfad 25 bp	Oct. 2019	updated valuation (roll forward): accident year 2019 loss ratio <u>d</u> ecreased 0.7 points to 122.3%; discount rate <u>i</u> ncreased 1 basis point; no change to selected margins for adverse deviations
Dec. 31, 2019 (completed)	1.58% mfad 25 bp	Mar. 2020	update valuation: accident year 2019 loss ratio <u>d</u> ecreased 5.8 points to 116.5%; accident year 2020 loss ratio <u>d</u> ecreased 5.7 points to 119.5 %; discount rate <u>i</u> ncreased 17 basis points; no change to selected margins for adverse deviations
Mar. 31, 2020 (completed)	0.66% mfad 25 bp	May. 2020	update valuation (partial roll-forward): accident year 2020 loss ratio <u>d</u> ecreased 7.8 points to 111.7 %; discount rate <u>d</u> ecreased 92 basis points; no change to selected margins for adverse deviations
Jun. 30, 2020	% mfad -- bp	Aug. 2020	update valuation
Sep. 30, 2020	% mfad -- bp	Oct. 2020	update valuation (roll-forward)

Under the proposed schedule for fiscal year 2020, the off-half valuation quarters ending March 31, 2020 and September 30, 2020 would not reflect a full valuation update of assumptions, but would rather roll-forward key assumptions from the previous valuation. However, with disruption in the insurance environment from the COVID-19 pandemic, the valuation quarter ending March 31, 2020 includes a partial update of key assumptions to reflect this impact. Other assumptions are rolled-forward from the previous valuation.

1.2 Appointed Actuary and Hybrid Actuarial Services Model

Mr. Cosimo Pantaleo of Ernst & Young LLP (EY) was appointed as Actuary by the FA Board at its

February 18, 2020 meeting.

Facility Association operates under a hybrid model in relation to the management and provision of actuarial services. Under this model, actuarial services are performed by both Facility Association's internal staff and its external actuarial consulting firm. The hybrid model approach maximizes the efficiency of resource allocation while providing access to additional expertise and capacity as needed.

1.3 Consideration of Recent Legal Decisions and Changes in Legislation / Regulation¹

Consideration and assessment of potential impacts of legal decisions and changes in legislation / regulation constitutes a regular part of the valuation process. Descriptions of some of the more recent changes (i.e. within the last five years) are provided below.

Ontario Bill 91 (Building Ontario Up Act (Budget Measures), 2015) was introduced into the Legislature by the Minister of Finance on April 23, 2015 and **received Royal Assent on June 4, 2015**. Bill 91 announced a number of amendments to regulations made under the Insurance Act, including: updating the Catastrophic Impairment Definition and changes to the standard benefit level under the Statutory Accident Benefits Schedule (SABS); restrictions on insurance premium increases and lowering of the maximum interest rate charged on monthly auto insurance premium payments; and adjustments to the monetary threshold beyond which the tort deductible does not apply to reflect inflation (adjustments to reflect inflation in the associated tort deductible were undertaken via an update to regulation 461/96). On August 26, 2015, the Ontario government filed Ontario regulations 250/15 and 251/15 implementing reforms set out in Bill 91. With the most recent valuation (March 31, 2020), reform adjustments (originally introduced with the September 30, 2015 valuation) specifically related to changes to the SABS impacting the bodily injury and accident benefits coverages, were included with the updated industry trend analysis (completed using industry data as at June 30, 2019), impacting the selection of ultimates.

In **Tomec v Economical Mutual Insurance Company (2019 ONCA 882)**, the Ontario Court of Appeal set aside the Divisional Court judicial review and decision of the Licence and Appeal Tribunal to deny enhanced housekeeping and attendant care benefits. The unanimous panel concluded that the rule of discoverability applied to s. 281.1(1) of the Insurance Act and to s. 51(1) of the old Statutory Accident Benefits Schedule such that the two-year limitation period to dispute benefits could not run before an insured was determined to be catastrophically impaired (CAT). On June 4th, 2020, the Supreme Court of Canada dismissed the insurer's application to appeal the Ontario Court of Appeal's decision in this matter. At the current time, no adjustments have been made to our valuation estimates as a result of this decision.

1.4 Current Provision Summary

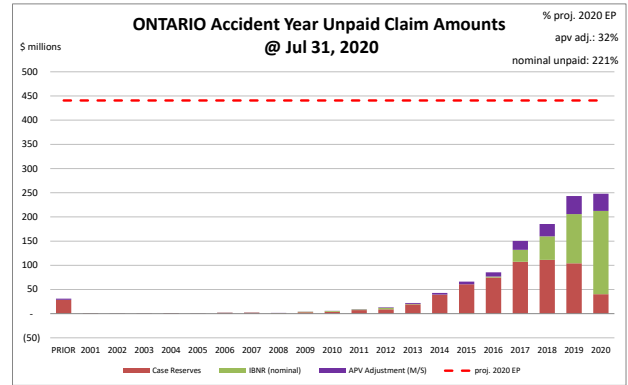
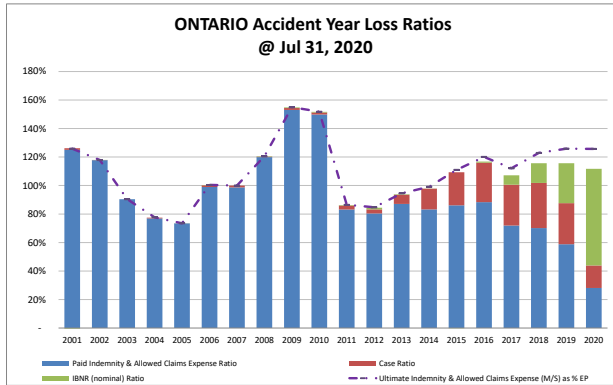
The following charts show the current levels of claim liabilities² booked by accident year³. The left

¹This url to a pdf is to a helpful guide on how bills become laws: <https://www.ola.org/sites/default/files/common/how-bills-become-law-en.pdf>.

²Claim liabilities refer to provision for unpaid indemnity and allowed claims expenses. Allowed claims expenses are first party legal and other expenses as listed in the RSP Claims Guide. Claims expenses paid through the member company expense allowance are NOT included in this discussion.

³The loss ratio chart has been limited to show the most recent 20 accident years; the unpaid provision chart has been limited to show the most recent 20 accident years, and show all accident years older than 20 years collectively as "PRIOR".

chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present value adjustments against accident year earned premium. The right chart shows the associated dollar amounts for the components of the claim liabilities and the current projected amount of 2020 full year earned premium (the red hash-mark line) to provide some perspective.



“M/S” refers to “Member Statement” values – that is, actuarial present value adjustments at the selected discount rate.

The current actuarial present value adjustments provision for claims liabilities (\$141.4 million – see the following table) represents 32% of the earned premium projected for the full year 2020 (see the upper right corner of the preceding chart on the right). If our current estimates of the nominal unpaid amounts prove to match actual claims payments, the actuarial present value adjustments will be released into the net operating result over future periods.

claim liabilities (\$000s)	amt	%
case	615,721	55.2%
ibnr	357,914	32.1%
M/S apv adjust.	141,399	12.7%
M/S total	1,115,034	100.0%

The table to the left breaks down the Member Statement (M/S) claim liabilities total into component parts, showing that the majority of the claim liabilities for this RSP is in case reserves. Approximately 77% of the IBNR balance relates to accident years 2019 and 2020 (see Exhibit B). Approximately 82% of the M/S total claim

liabilities are related to accident years 2016-2020 inclusive (i.e. the most recent 5 accident years), and approximately 4% is related to accident years 2010 and prior (i.e. prior to the most recent 10 accident years).

The following tables summarize the premium liabilities and the total policy liabilities.

premium liabilities (\$000s)	amt	%
unearned prem	215,317	77.9%
prem def/(dpac)	31,378	11.3%
M/S apv adjust.	29,804	10.8%
M/S total	276,499	100.0%

policy liabilities (\$000s)	amt	%
claim	973,635	70.0%
premium	246,695	17.7%
M/S apv adjust.	171,203	12.3%
M/S total	1,391,533	100.0%

2 Activity during the Month of July 2020

2.1 Recorded Premium and Claims Activity

The following table summarizes the extent to which premiums and claims amounts recorded during

the month differ from projections reflected in the prior month’s Operational Report⁴.

Ontario RSP Actual vs Projected Summary: Recorded Transaction Amounts (\$ thousands)

Table 01 Accident Year	Earned Premium		Paid Indemnity & Allowed Claims Expense		Case increase / (decrease)		Recorded increase / (decrease)	
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	(76)	(76)	8,668	(3,080)	(7,784)	2,602	885	(477)
2018	(246)	(246)	2,326	(597)	626	1,996	2,952	1,399
2019	(334)	(334)	2,598	(742)	1,037	(267)	3,635	(1,009)
2020	35,300	(2,025)	10,535	(705)	6,024	(5,045)	16,559	(5,750)
TOTAL	34,645	(2,681)	24,127	(5,124)	(97)	(714)	24,030	(5,838)

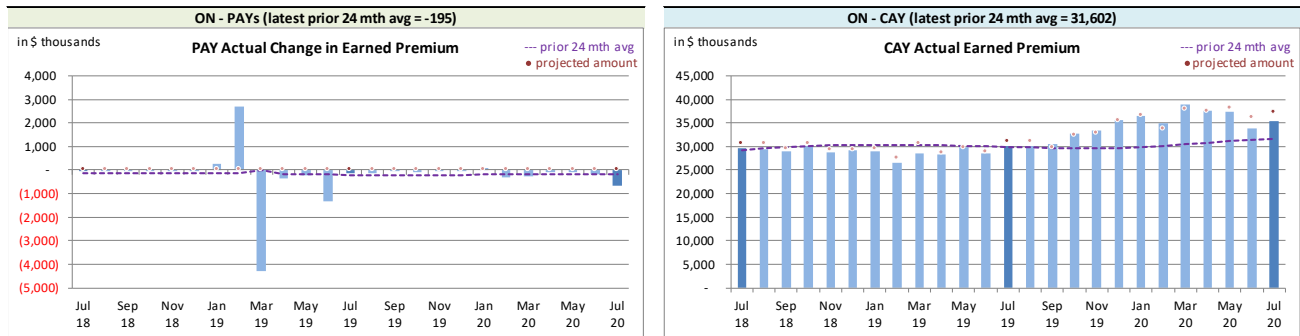
(Recorded transaction amounts exclude IBNR & other actuarial provisions)

Claims transaction activity is generally volatile and changes from one month to the next are anticipated due to this natural “process variance” (i.e. random variation). Each month, the projection variances are reviewed for signs of projection bias and to identify potential ways to reduce the level of the variance. Commentary from our review is provided in the sub-sections that follow.

2.1.a Actual vs. Projected (AvsP): Earned Premium

The following charts show actual **earned premium**⁵ activity in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

Ontario RSP Actual Earned Premium by Calendar Month



Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the preceding charts), although relatively high levels generally occur at the beginning of each year.

⁴There may be rounding differences in values in this document compared with the associated Bulletin and/or Operational Report.

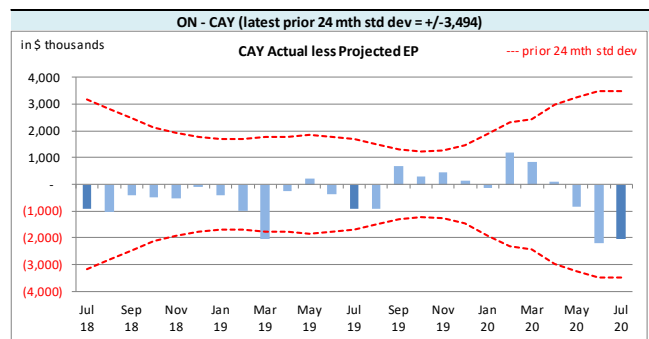
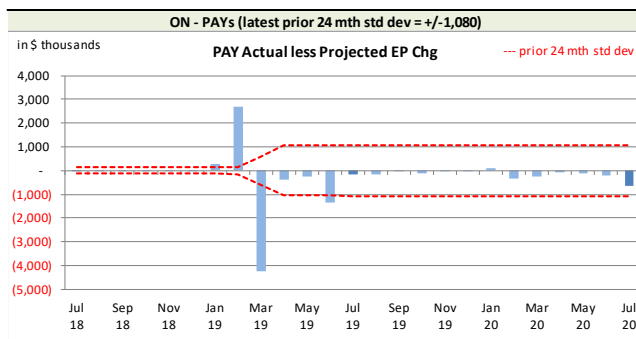
⁵Premium is earned on a daily basis based on the transaction term measured in days. As a result, months with 31 days earned relatively more than those with 30 days, and February earns the least.

On Latest \$ thousands		
Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(195)	31,602
std dev	1,080	3,494
A-P <> std dev	4	1
% <> std dev	16.0%	4.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

The associated variance between the actual changes and the projections from the previous month are shown in the charts below. **Earned premium** change projections are all attributed to the current accident year as the projection upload does not accept **earned premium** changes for other accident years. We do not see this limitation as being significant for our purposes, but it does mean that

the actual less projection variance will equal the actual **earned premium** change in relation to prior accident years.

Ontario RSP Actual vs. Projected Summary: Earned Premium Variances by Calendar Month



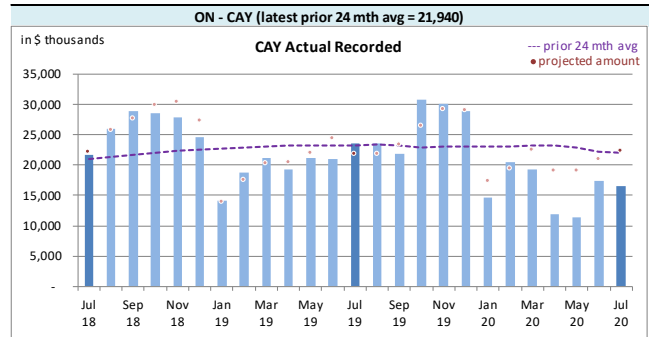
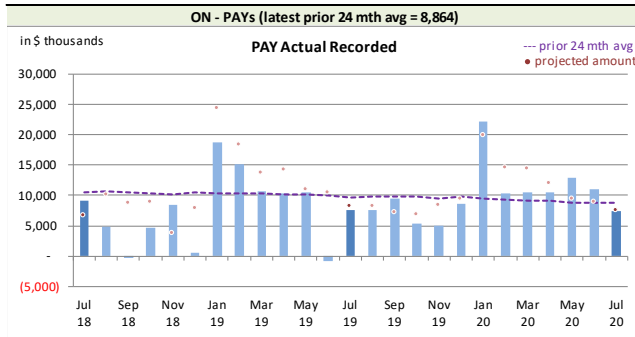
We project **earned premium** changes from known unearned premium balances and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years’ (PAYs) bias⁶, with actuals generally lower than projected, although the magnitude is not high relative to monthly premium. Readers will also note the significant fluctuations in the CAY standard deviation band, reflecting significant volume changes and the impact as those changes were earned.

2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

The following charts below show actual **recorded** activity (**paid** and **case reserve** changes), in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

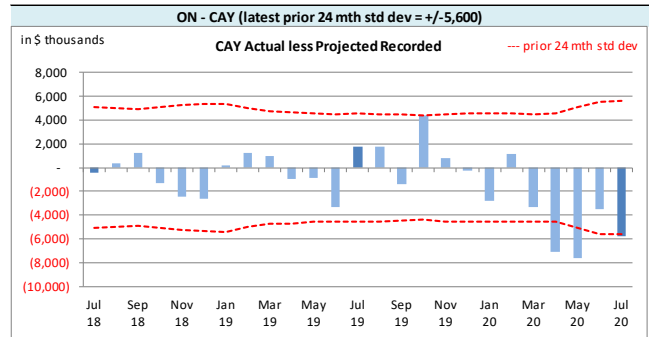
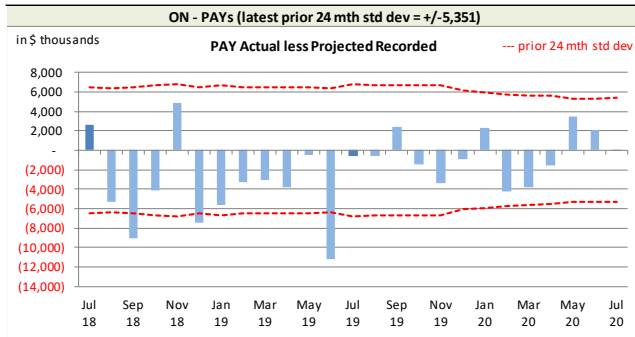
⁶The PAYs’ variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

Ontario RSP Actual Recorded by Calendar Month



Recorded activity variances from the previous month’s projections are shown in the following charts, including the “prior 24-month standard deviation” levels to show how the variances from projection compare with historical standard deviations.

Ontario RSP Actual vs Projected Summary: Recorded Variances by Calendar Month



On Latest \$ thousands		
Recorded	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)	8,864	21,940
std dev	5,351	5,600
A-P <> std dev	3	3
% <> std dev	12.0%	12.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

With respect to **recorded** indemnity & allowed claims expense, 12% of the prior accident years’ (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **recorded** amounts (see table on left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount (assuming it follows a normal

distribution). Bias⁷ has been indicated at a 95% confidence level on a rolling 25-month basis (6 of 25 variances were positive); however, on a lagging 12-month basis, bias has not been indicated (4 of latest 12 variances have been positive).

The current accident year (CAY) **recorded** variances (preceding chart on the left) fell outside of one standard deviation 12% of the time over the last 25 calendar months suggesting that the projection process has performed better than simply projecting the prior 24-month average amount. Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (10 of 25 variances were positive).

The CAY **recorded** variance was outside of one standard deviation band this month (see preceding

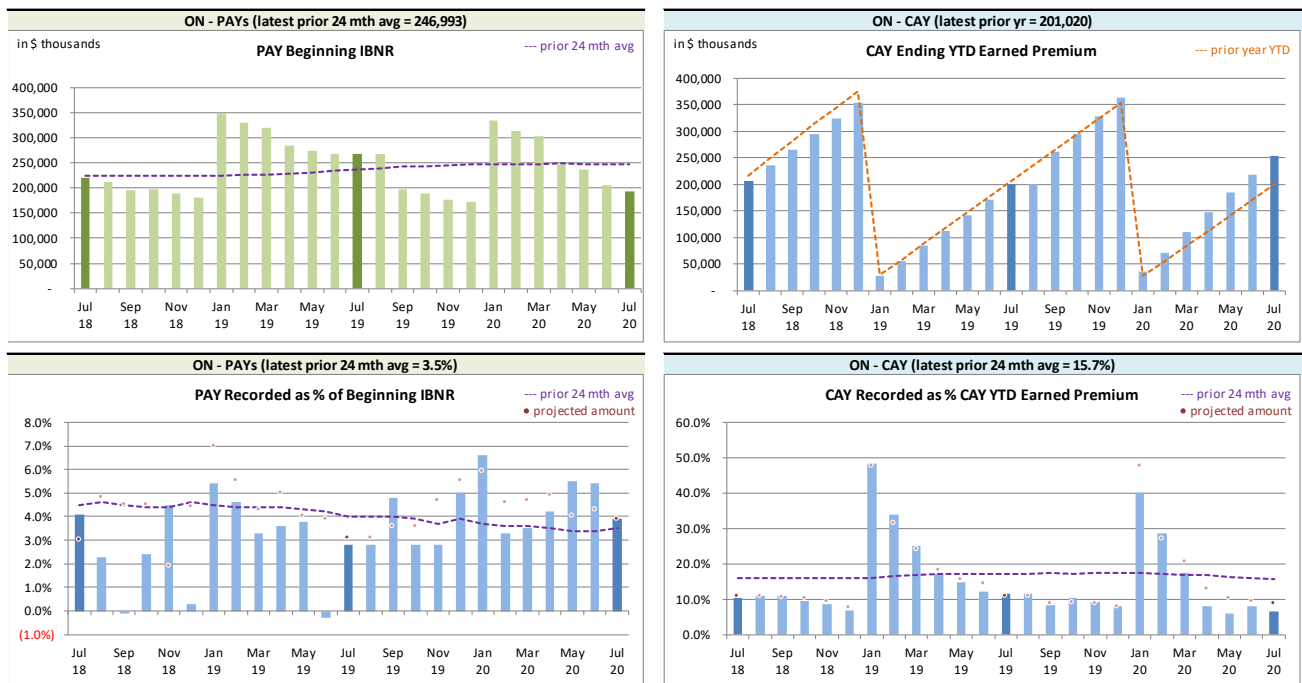
⁷ For the binomial distribution with 25 trials and an assumed 50% success probability, the 95% confidence range is 8 to 17 successes. That is, favourable or unfavourable counts of 0 to 7 or 18 to 25 out of 25 outcomes would suggest bias.

chart on the right). The lower than projected recorded activity was reviewed, and attributed to a reduction in written premium and physical damage claims experience in the month further to the valuation assumption update in relation to COVID-19.

The method for establishing IBNR adjusts automatically for changes in **earned premium** and **recorded** claims activity level (see sections 2.2 and 3).

We have included, for reference, the following additional charts related to levels influencing **recorded** activity. Note in particular the reduction in the level of PAY beginning IBNR over the months, as a response to valuations and showing up as a beginning IBNR change one month after a valuation is implemented (i.e. April, June, September, and November).

Ontario RSP Levels that influence⁸ Recorded activity by Calendar Month



We track PAY beginning IBNR as **recorded** activity comes out of IBNR. Changes in the PAY beginning IBNR (see upper left of the preceding group of charts) occur for several possible reasons:

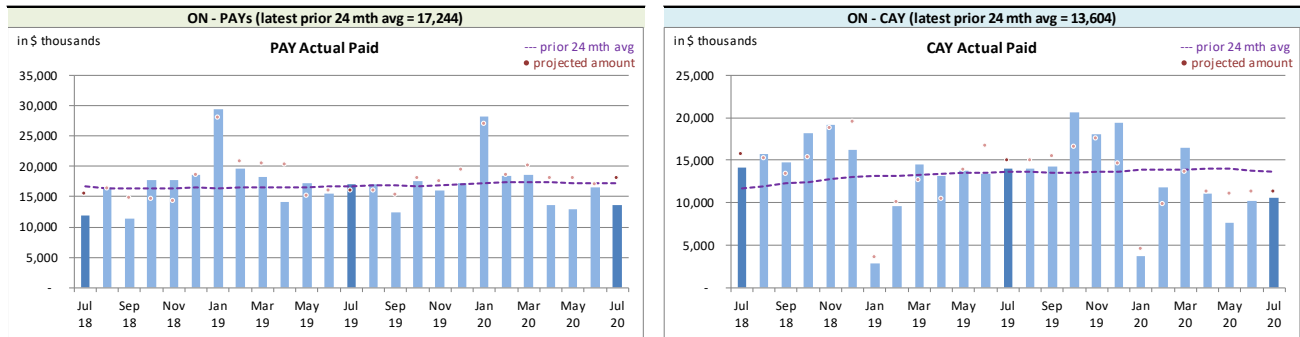
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a CAY becomes a PAY (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYS' ultimates (will show up as a beginning IBNR change one month after the valuation is implemented, i.e. the change will generally show in April, June, September, and November).

⁸Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected LR x earned premium), deriving year-to-date recorded as selected ultimate less IBNR. In both cases, the ratio selection is based on our review of the more recent recorded activity and recent AvsP analyses.

2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

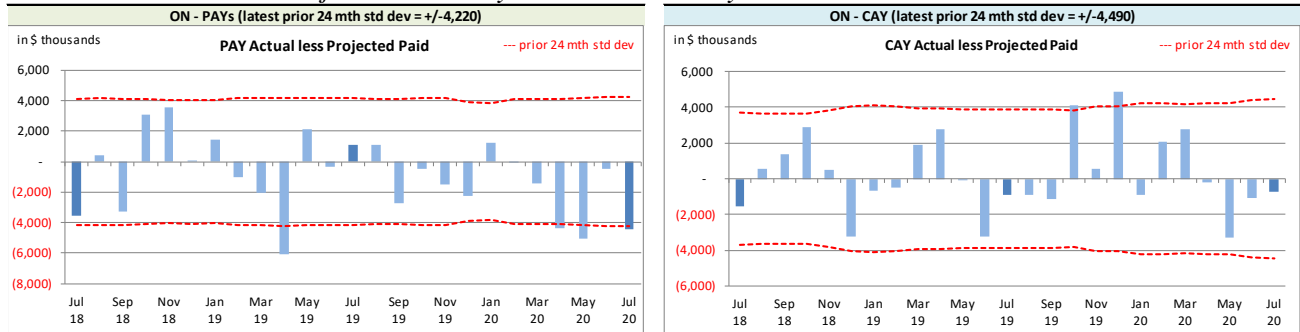
The following charts show actual **paid** activity in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

Ontario RSP Actual **Paid** activity by Calendar Month



Paid activity variances from the previous month’s projections are shown in the following charts, including the “prior 24-month standard deviation” levels to show how the variances from projection compare with historical standard deviations.

Ontario RSP Actual vs Projected Summary: **Paid** Variances by Calendar Month



On Latest \$ thousands		
Paid	PAYS	CAY
Mthly Avg Paid (prior 24 mths)	17,244	13,604
std dev	4,220	4,490
A-P <> std dev	4	2
% <> std dev	16.0%	8.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

With respect to **paid** indemnity & allowed claims expense, 16% of the prior accident years’ (PAYS) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **paid** amounts (see table on left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount (assuming it follows a normal distribution). Bias

has not been indicated at a 95% confidence level on a rolling 25-month basis (9 of 25 variances are positive).

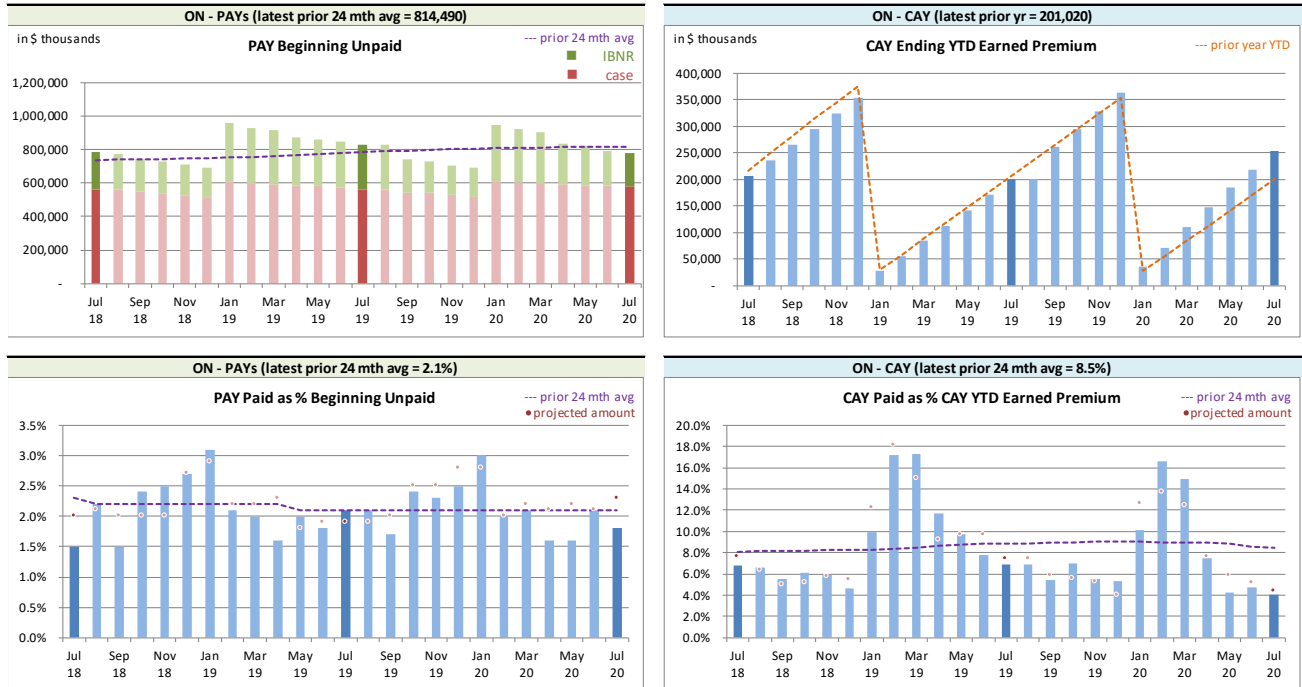
The PAY **recorded** variance was outside of the one standard deviation band this month (see preceding chart on the left). The lower than projected recorded activity was reviewed, and attributed to process variance.

The current accident year (CAY) **paid** variances fell outside of one standard deviation 8% of the time

over the last 25 calendar months (preceding chart on the left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount. Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (11 of 25 variances are positive).

We have included, for reference, the following charts related to levels influencing **paid** activity.

Ontario RSP Levels that influence⁹ Paid activity by Calendar Month



We track the PAY beginning unpaid balance (case and IBNR) as **paid** activity comes out of the unpaid balance. Changes in the PAY beginning unpaid balance (see upper left of the preceding group of charts) occur for several possible reasons:

- to offset actual **paid** activity (may reduce case or IBNR or both);
- the annual switchover as a CAY becomes a PAY (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYs' ultimates (will show up as a beginning unpaid balance change one month after the valuation is implemented, i.e. the change will generally show in April, June, September, and November).

2.2 Actuarial Provisions

An ultimate loss ratio matching method (described in section 3) is used to determine the month's IBNR¹⁰, and factors are applied to the nominal unpaid claims liability (case plus IBNR) to determine

⁹Our paid projections for the prior accident years are based on selected ratios of paid to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date paid to year-to-date selected ultimate indemnity (i.e. selected LR x earned premium). In both cases, the ratio selection is based on our review of the more recent recorded activity and recent AvsP analyses.

¹⁰For ease of discussion, "IBNR" is used in place of "provisions for incurred but not recorded (IBNR) and development".

the discount amount (shown as a negative value to indicate its impact of reducing the liability) and the Provisions for Adverse Deviations. The loss ratios and the factors used to determine the projections and actuals were based on the applicable valuation.

The following table summarizes variances in provisions included in this month’s Operational Report and the associated one-month projections from last month’s Report.

Ontario RSP Actual vs Projected Summary: IBNR and APV Amounts (\$ thousands)

Table 02		actuarial present value adjustments						
		IBNR		Discount Amount		Provisions for Adverse Deviations		IBNR + actuarial present value adjustments
Accident Year	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	35,576	392	(7,334)	(70)	49,995	376	78,237	698
2018	48,521	(1,682)	(2,716)	(6)	28,441	56	74,246	(1,632)
2019	101,520	623	(4,116)	(7)	41,576	72	138,980	688
2020	172,297	3,488	(4,249)	31	39,802	(292)	207,850	3,227
TOTAL	357,914	2,821	(18,415)	(52)	159,814	212	499,313	2,981

The IBNR provision is \$2.8 million higher than projected from last month, counterbalancing the recorded claims activity and adjusting for the earned premium variance impacts indicated in section 2.1.

Exhibit G shows the accident year IBNR amount change from last month to this month broken down into:

- (i) the change projected last month;
- (ii) the additional change due to variances in earned premium (because we apply a loss ratio to earned premium in determining ultimate level) and/or recorded claims (as IBNR is calculated as ultimate less recorded) differences; and
- (iii) the additional change due to valuation implementation impacts (as applicable)

The variances associated with (ii) above are discussed in sections 2.1.a and 2.1.b.

The following table summarizes the variances in the provisions for premium deficiency liability / (deferred policy acquisition cost asset) included in this month’s Operational Report and the one-month projections from last month’s Report. This RSP is in a premium deficiency position (shown as a positive amount) prior to and after actuarial present value adjustments. Actuarial present value adjustments increase the liability value as the adjustments increase the expected future policy obligations (costs) associated with the unearned premium. The variances noted are mainly driven by the unearned premium variance.

Ontario RSP Actual vs Projected Summary: Premium Deficiency / (DPAC) Amounts (\$ thousands)

Table 03

	Premium Deficiency / (Deferred Policy Acquisition Costs)		actuarial present value adjustments		Premium Deficiency / (DPAC) including actuarial present value adjustments	
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
balance:	31,378	(429)	29,804	(277)	61,182	(706)
balance as % unearned premium:	14.6%	-	13.8%	(0.1%)	28.4%	(0.1%)
actual unearned premium:	215,317					
less projected:	(1,868)					

3 Ultimate Loss Ratio Matching Method

An “ultimate loss ratio matching method” continues to be applied to the current month and two projected months shown in the Operational Reports, with IBNR determined by accident year as follows:

- (a) Earned premium to-date
- (b) Ultimate loss¹¹ ratio per latest valuation
- (c) Estimated ultimate incurred = (a) x (b)
- (d) Recorded indemnity & allowed claims expense to-date
- (e) IBNR = (c) – (d)

4 Calendar Year-to-Date Results

The following table summarizes the calendar year-to-date results for indemnity & allowed claims expenses¹², including IBNR.

In calculating the amounts as percentages of earned premium, the calendar year-to-date earned premium has been used, which includes earned premium associated with the current accident year but also earned premium adjustments related to prior accident years. Specifically, the current accident year (CAY) ratio in the table is 112.4% rather than 111.7% (the valuation ultimate ratio for accident year 2020), as the calendar year-to-date earned premium includes prior accident year earned premium adjustments. (Note that the ratios in this table may differ slightly from those shown in the Ontario RSP Summary of Operations due to rounding.)

¹¹“Loss” here refers to indemnity and allowed claims expenses, but does not include the claims expense allowance included in member company overall expense allowances (“Expense Allowance” in the Operational Report).

¹²Allowed claims expenses are first party legal and other expenses as listed in the RSP Claims Guide. Claims expenses paid through the member company expense allowance are NOT included in this analysis.

Ontario RSP Calendar Year-to-Date Indemnity & Allowed Claims Expense Summary (\$ thousands)

Table 04	YTD Nominal Values		YTD actuarial present value adjustment		YTD Total		Change from Prior Month YTD	
	Amount	% EP	Amount	% EP	Amount	% EP	Amount	LR pts
PAYs	(64,545)	(25.5%)	895	0.4%	(63,650)	(25.2%)	(2,666)	2.8%
CAY	283,855	112.4%	35,553	14.1%	319,408	126.4%	44,265	0.2%
TOTAL	219,310	86.8%	36,448	14.4%	255,758	101.2%	41,599	3.0%

(“% EP” based on 2020 calendar year-to-date earned premium; ratios may not total due to rounding)

In general, prior accident years (PAYs) changes from last month are due to the release of the actuarial present value adjustments with claims payments, except when valuations are implemented. The loss ratio change year-to-date in Table 04 reflects not only changes in the prior accident year levels, but also the increase in the calendar year-to-date earned premium with an additional month’s earned premium.

For the current accident year (CAY), changes in the year-to-date total reflects the additional month’s exposure and regular changes to actuarial present value adjustments as the year ages.

5 Current Operational Report – Additional Exhibits

Section 6 provides exhibits pertaining to the actuarial provisions reflected in the current month’s Operational Report.

IBNR (including actuarial present value adjustments) presented in section 6, Exhibit A, were derived on a discounted basis, and therefore reflect the time value of money and include an explicit provision for adverse deviations in accordance with accepted actuarial practice in Canada.

IBNR presented in section 6, Exhibit B, does NOT include any actuarial present value adjustments. The “Total IBNR” from this exhibit is shown in the Operational Report as “Undiscounted IBNR”.

The ultimate loss ratios presented in section 6, Exhibit B, refer to the estimates derived on the basis of various actuarial methodologies applied to the experience of the Ontario Risk Sharing Pool for the purposes of the most recent quarterly valuation. As discussed in section 3, IBNR in the current month’s Operational Report was derived as the difference between the estimated ultimate for the claims amount (i.e. earned premium x ultimate loss ratio) and the associated current recorded amounts (life-to-date payments plus current case reserves).

6 EXHIBITS

The exhibits listed below are provided on the pages that follow:

- EXHIBIT A IBNR for Member Sharing – includes Actuarial Present Value Adjustments
- EXHIBIT B IBNR
- EXHIBIT C Premium Liabilities
- EXHIBIT D Projected Year-end Policy Liabilities
- EXHIBIT E Discount Rate & Margins for Adverse Deviations
- EXHIBIT F Interest Rate Sensitivity
- EXHIBIT G Components of IBNR Change During Month

EXHIBIT A

IBNR for Member Sharing – includes Actuarial Present Value Adjustments

TABLE EXHIBIT A

		Amounts in \$000s				
IBNR + M/S actuarial present value adjustments	Accident Year	Actual Jun. 2020	Actual Jul. 2020	Projected Aug. 2020	Projected Sep. 2020	Projected Dec. 2020
	prior	2,562	2,518	2,458	2,397	2,201
	2001	(235)	(235)	(224)	(222)	(196)
	2002	74	74	71	70	62
	2003	16	16	15	15	13
	2004	149	149	144	140	126
	2005	129	129	123	123	110
	2006	525	521	502	494	446
	2007	160	158	153	150	138
	2008	743	742	711	702	629
	2009	1,278	1,251	1,200	1,183	1,065
	2010	1,886	1,831	1,754	1,732	1,556
	2011	1,541	1,814	1,745	1,718	1,550
	2012	4,215	4,215	4,043	3,988	3,586
	2013	2,687	2,732	2,645	2,595	2,359
	2014	3,135	3,647	3,556	3,471	3,182
discount rate	2015	4,997	4,698	4,604	4,480	4,133
0.66%	2016	11,792	10,969	10,610	10,325	9,168
	2017	44,501	43,008	42,129	40,539	35,445
interest rate margin	2018	77,900	74,246	72,837	70,055	61,886
25 basis pts	2019	143,545	138,980	133,914	130,583	119,806
	2020	180,144	207,850	230,847	252,719	238,903
	TOTAL	481,744	499,313	513,837	527,257	486,168
	Change		17,569	14,524	13,420	

Please see Exhibit G, page 1 for Components of Change during Current Month

EXHIBIT B
IBNR

TABLE EXHIBIT B

Amounts in \$000s

IBNR	Ultimate Loss Ratio	Accident Year	Actual Jun. 2020	Actual Jul. 2020	Projected Aug. 2020	Projected Sep. 2020	Projected Dec. 2020
	-	prior	11	(25)	(25)	(25)	(25)
	125.8%	2001	(293)	(293)	(280)	(277)	(247)
	117.9%	2002	63	63	60	59	52
	90.4%	2003	14	14	13	13	11
	77.6%	2004	61	61	58	57	50
	73.5%	2005	116	116	111	110	98
	100.3%	2006	359	356	340	337	301
	99.9%	2007	4	2	2	2	2
	120.5%	2008	644	644	614	608	543
	154.8%	2009	1,001	975	930	921	823
	151.7%	2010	1,494	1,454	1,387	1,373	1,226
	86.3%	2011	913	1,172	1,118	1,107	989
	84.4%	2012	3,276	3,280	3,129	3,098	2,768
	93.9%	2013	1,020	1,076	1,027	1,017	908
	97.9%	2014	(251)	286	273	270	240
	109.0%	2015	(591)	(623)	(594)	(588)	(525)
	116.8%	2016	2,702	2,205	2,161	2,139	1,833
	107.2%	2017	26,003	24,813	24,317	23,101	19,807
	115.6%	2018	51,756	48,521	47,551	45,173	38,730
	115.6%	2019	105,541	101,520	97,053	94,238	85,388
	111.7%	2020	149,426	172,297	190,134	207,272	187,665
		TOTAL	343,269	357,914	369,379	380,005	340,637
		Change		14,645	11,465	10,626	

Please see Exhibit G, page 2 for Components of Change during Current Month

EXHIBIT C

Premium Liabilities

TABLE EXHIBIT C

	Amounts in \$000s				
	Actual Jun. 2020	Actual Jul. 2020	Projected Aug. 2020	Projected Sep. 2020	Projected Dec. 2020
Premium Liabilities					
(1) unearned premium (UP)	216,347	215,317	221,592	233,710	242,082
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	127.6%	128.4%	129.4%	130.5%	134.2%
(3) expected future costs {(1) x (2)}	276,076	276,499	286,808	305,038	324,782
(4) premium deficiency / (deferred policy acquisition cost)	59,729	61,182	65,216	71,328	82,700
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	113.9%	114.6%	115.5%	116.5%	119.7%
(6) expected future costs {(1) x (5)}	246,319	246,695	255,894	272,158	289,772
(7) premium deficiency / (deferred policy acquisition cost)	29,972	31,378	34,302	38,448	47,690

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2020, broken down by component.

Ontario		Projected Balances as at Dec. 31, 2020 (\$000s)								
ending 2020		nominal values			actuarial present value adjustments (apvs)					
Acc Yr	Case	IBNR	Total Unpaid	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL
prior	25,037	(25)	25,012	(400)	158	2,508	(40)	2,468	2,226	27,238
2001	824	(247)	577	(10)	4	58	(1)	57	51	628
2002	57	52	109	(2)	1	11	-	11	10	119
2003	7	11	18	-	-	2	-	2	2	20
2004	895	50	945	(25)	9	94	(2)	92	76	1,021
2005	39	98	137	(4)	2	14	-	14	12	149
2006	1,607	301	1,908	(65)	25	191	(6)	185	145	2,053
2007	1,853	2	1,855	(69)	26	186	(7)	179	136	1,991
2008	675	543	1,218	(49)	18	122	(5)	117	86	1,304
2009	2,702	823	3,525	(155)	60	352	(15)	337	242	3,767
2010	3,578	1,226	4,804	(211)	82	480	(21)	459	330	5,134
2011	6,556	989	7,545	(272)	106	754	(27)	727	561	8,106
2012	7,877	2,768	10,645	(330)	117	1,064	(33)	1,031	818	11,463
2013	16,911	908	17,819	(463)	178	1,782	(46)	1,736	1,451	19,270
2014	34,421	240	34,661	(728)	277	3,466	(73)	3,393	2,942	37,603
2015	53,286	(525)	52,761	(897)	369	5,276	(90)	5,186	4,658	57,419
2016	62,429	1,833	64,262	(964)	386	8,033	(120)	7,913	7,335	71,597
2017	93,716	19,807	113,523	(1,703)	568	17,028	(255)	16,773	15,638	129,161
2018	105,077	38,730	143,807	(2,445)	863	25,166	(428)	24,738	23,156	166,963
2019	103,679	85,388	189,067	(3,781)	1,513	37,435	(749)	36,686	34,418	223,485
PAYs (sub-total):	521,226	152,972	674,198	(12,573)	4,762	104,022	(1,918)	102,104	94,293	768,491
CAY (2020)	118,525	187,665	306,190	(6,124)	2,450	56,033	(1,121)	54,912	51,238	357,428
claims liabilities:	639,751	340,637	980,388	(18,697)	7,212	160,055	(3,039)	157,016	145,531	1,125,919
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*
premium liabilities:	242,082	47,690	289,772	(4,339)	1,736	38,186	(573)	37,613	35,010	324,782
policy liabilities:			1,270,160	(23,036)	8,948	198,241	(3,612)	194,629	180,541	1,450,701

*Total may not be sum of parts, as apvs apply to future costs within UPR

EXHIBIT E

Discount Rate & Margins for Adverse Deviations

The tables below present selected margins for adverse development by coverage (the total is a weighted average, based on the unpaid claims projection for December 31, 2020 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Selected Claims Development MfADs (Mar. 31, 2020)

Accident Year	Third Party Liability Margins	Accident Benefits Margins	Other Coverages Margins	Total Margins
1993	10.0%	10.0%	10.0%	10.0%
1994	10.0%	10.0%	10.0%	10.0%
1995	10.0%	10.0%	10.0%	10.0%
1996	10.0%	10.0%	10.0%	10.0%
1997	10.0%	10.0%	10.0%	10.0%
1998	10.0%	10.0%	10.0%	10.0%
1999	10.0%	10.0%	10.0%	10.0%
2000	10.0%	10.0%	10.0%	10.0%
2001	10.0%	10.0%	10.0%	10.0%
2002	9.1%	10.0%	10.0%	10.0%
2003	10.0%	10.0%	10.0%	10.0%
2004	10.0%	10.0%	10.0%	10.0%
2005	10.0%	10.0%	10.0%	10.0%
2006	10.0%	10.0%	10.0%	10.0%
2007	10.0%	10.0%	10.0%	10.0%
2008	10.0%	10.0%	10.0%	10.0%
2009	10.0%	10.0%	10.0%	10.0%
2010	10.0%	10.0%	10.0%	10.0%
2011	10.0%	10.0%	10.0%	10.0%
2012	10.0%	10.0%	10.0%	10.0%
2013	10.0%	10.0%	10.0%	10.0%
2014	10.0%	10.0%	9.8%	10.0%
2015	10.0%	10.0%	9.8%	10.0%
2016	12.5%	12.5%	12.4%	12.5%
2017	15.0%	15.0%	15.0%	15.0%
2018	17.5%	17.5%	16.9%	17.5%
2019	19.8%	20.0%	14.4%	19.8%
2020	17.9%	20.0%	6.2%	18.3%
2021	12.5%	20.0%	5.2%	13.2%
prem liab	12.5%	20.0%	5.2%	13.2%

discount rate: 0.66%
margin (basis points): 25

EXHIBIT F

Interest Rate Sensitivity

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2020 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2020, and are based on more up-to-date information). We have included the most recent valuation selection (0.66%), the prior valuation assumption (1.58%) and the prior fiscal year end valuation assumption (1.41%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

\$ Format: \$000s

AY	Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2020 projected Unpaid							
	0.00%	0.16%	0.66%	1.16%	1.66%	2.16%	1.58%	1.41%
2002 & prior	27,702	27,693	27,408	27,075	26,749	26,432	26,802	26,911
2003	62	62	61	60	59	58	59	60
2004	1,149	1,148	1,129	1,107	1,086	1,065	1,089	1,097
2005	234	234	229	224	219	214	220	222
2006	2,258	2,256	2,207	2,150	2,095	2,043	2,104	2,123
2007	2,293	2,291	2,237	2,174	2,114	2,057	2,124	2,144
2009	4,202	4,198	4,080	3,945	3,817	3,695	3,837	3,880
2010	5,602	5,597	5,441	5,263	5,094	4,934	5,121	5,178
2011	7,281	7,275	7,110	6,920	6,742	6,573	6,770	6,830
2012	9,494	9,487	9,298	9,082	8,877	8,684	8,909	8,978
2013	16,531	16,520	16,244	15,925	15,624	15,339	15,672	15,773
2014	30,010	29,997	29,587	29,114	28,669	28,245	28,739	28,890
2015	48,391	48,374	47,858	47,264	46,699	46,159	46,790	46,981
2016	69,836	69,805	69,140	68,367	67,630	66,919	67,742	67,996
2017	129,677	129,609	128,349	126,883	125,465	124,092	125,695	126,161
2018	170,219	170,118	168,248	166,105	164,028	162,014	164,336	165,035
2019	219,429	219,247	216,454	213,263	210,168	207,201	210,653	211,706
2020	339,806	339,543	335,169	330,106	325,253	320,602	326,067	327,664
Total	1,085,738	1,085,014	1,071,770	1,056,502	1,041,819	1,027,715	1,044,167	1,049,081
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

AY	Dollar Impact Relative to Valuation Assumption							
	0.00%	0.16%	0.66%	1.16%	1.66%	2.16%	1.58%	1.41%
Total	13,968	13,244	-	(15,268)	(29,951)	(44,055)	(27,603)	(22,689)
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

AY	Percentage Impact Relative to Valuation Assumption							
	0.00%	0.16%	0.66%	1.16%	1.66%	2.16%	1.58%	1.41%
2002 & prior	1.1%	1.0%	-	(1.2%)	(2.4%)	(3.6%)	(2.2%)	(1.8%)
2003	1.6%	1.6%	-	(1.6%)	(3.3%)	(4.9%)	(3.3%)	(1.6%)
2004	1.8%	1.7%	-	(1.9%)	(3.8%)	(5.7%)	(3.5%)	(2.8%)
2005	2.2%	2.2%	-	(2.2%)	(4.4%)	(6.6%)	(3.9%)	(3.1%)
2006	2.3%	2.2%	-	(2.6%)	(5.1%)	(7.4%)	(4.7%)	(3.8%)
2007	2.5%	2.4%	-	(2.8%)	(5.5%)	(8.0%)	(5.1%)	(4.2%)
2009	3.0%	2.9%	-	(3.3%)	(6.4%)	(9.4%)	(6.0%)	(4.9%)
2010	3.0%	2.9%	-	(3.3%)	(6.4%)	(9.3%)	(5.9%)	(4.8%)
2011	2.4%	2.3%	-	(2.7%)	(5.2%)	(7.6%)	(4.8%)	(3.9%)
2012	2.1%	2.0%	-	(2.3%)	(4.5%)	(6.6%)	(4.2%)	(3.4%)
2013	1.8%	1.7%	-	(2.0%)	(3.8%)	(5.6%)	(3.5%)	(2.9%)
2014	1.4%	1.4%	-	(1.6%)	(3.1%)	(4.5%)	(2.9%)	(2.4%)
2015	1.1%	1.1%	-	(1.2%)	(2.4%)	(3.6%)	(2.2%)	(1.8%)
2016	1.0%	1.0%	-	(1.1%)	(2.2%)	(3.2%)	(2.0%)	(1.7%)
2017	1.0%	1.0%	-	(1.1%)	(2.2%)	(3.3%)	(2.1%)	(1.7%)
2018	1.2%	1.1%	-	(1.3%)	(2.5%)	(3.7%)	(2.3%)	(1.9%)
2019	1.4%	1.3%	-	(1.5%)	(2.9%)	(4.3%)	(2.7%)	(2.2%)
2020	1.4%	1.3%	-	(1.5%)	(3.0%)	(4.3%)	(2.7%)	(2.2%)
Total	1.3%	1.2%	-	(1.4%)	(2.8%)	(4.1%)	(2.6%)	(2.1%)
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

EXHIBIT G

Components of Member Statement IBNR (i.e. “Discounted”) Change During Month

RSP **Ontario**
AccountCode Desc **IBNR - Discounted**

M/S IBNR - in \$000s

AccYear	Values				Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation			
prior	2,562	(75)	31	-	(44)	(1.7%)	2,518
2001	(235)	16	(16)	-	-	-	(235)
2002	74	(4)	4	-	-	-	74
2003	16	(1)	1	-	-	-	16
2004	149	(7)	7	-	-	-	149
2005	129	(8)	8	-	-	-	129
2006	525	(28)	24	-	(4)	(0.8%)	521
2007	160	(4)	2	-	(2)	(1.3%)	158
2008	743	(43)	42	-	(1)	(0.1%)	742
2009	1,278	(71)	44	-	(27)	(2.1%)	1,251
2010	1,886	(107)	52	-	(55)	(2.9%)	1,831
2011	1,541	(76)	349	-	273	17.7%	1,814
2012	4,215	(238)	238	-	-	-	4,215
2013	2,687	(114)	159	-	45	1.7%	2,732
2014	3,135	(81)	593	-	512	16.3%	3,647
2015	4,997	(124)	(175)	-	(299)	(6.0%)	4,698
2016	11,792	(409)	(414)	-	(823)	(7.0%)	10,969
2017	44,501	(1,242)	(251)	-	(1,493)	(3.4%)	43,008
2018	77,900	(2,022)	(1,632)	-	(3,654)	(4.7%)	74,246
2019	143,545	(5,253)	688	-	(4,565)	(3.2%)	138,980
2020	180,144	24,479	3,227	-	27,706	15.4%	207,850
Grand Total	481,744	14,588	2,981	-	17,569	3.6%	499,313

EXHIBIT G

Components of IBNR (i.e. “Undiscounted”) Change During Month

RSP		Ontario						IBNR - in \$000s
AccountCode Desc		IBNR - Undiscounted						
AccYear	Values							Sum of Current Month Final Amount
	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation	Sum of Total Change	Sum of % Total Change		
prior	11	(1)	(35)	-	(36)	(327.3%)	(25)	
2001	(293)	19	(19)	-	-	-	(293)	
2002	63	(4)	4	-	-	-	63	
2003	14	(1)	1	-	-	-	14	
2004	61	(4)	4	-	-	-	61	
2005	116	(7)	7	-	-	-	116	
2006	359	(23)	20	-	(3)	(0.8%)	356	
2007	4	-	(2)	-	(2)	(50.0%)	2	
2008	644	(41)	41	-	-	-	644	
2009	1,001	(64)	38	-	(26)	(2.6%)	975	
2010	1,494	(96)	56	-	(40)	(2.7%)	1,454	
2011	913	(58)	317	-	259	28.4%	1,172	
2012	3,276	(210)	214	-	4	0.1%	3,280	
2013	1,020	(65)	121	-	56	5.5%	1,076	
2014	(251)	16	521	-	537	(213.9%)	286	
2015	(591)	38	(70)	-	(32)	5.4%	(623)	
2016	2,702	(81)	(416)	-	(497)	(18.4%)	2,205	
2017	26,003	(780)	(410)	-	(1,190)	(4.6%)	24,813	
2018	51,756	(1,553)	(1,682)	-	(3,235)	(6.3%)	48,521	
2019	105,541	(4,644)	623	-	(4,021)	(3.8%)	101,520	
2020	149,426	19,383	3,488	-	22,871	15.3%	172,297	
Grand Total	343,269	11,824	2,821	-	14,645	4.3%	357,914	