



**ONTARIO RISK SHARING POOL**

**SEPTEMBER 2020 OPERATIONAL REPORT**

**ACTUARIAL HIGHLIGHTS**

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**ACTUARIAL HIGHLIGHTS**

**RSP ONTARIO**

**OPERATIONAL REPORT**

**SEPTEMBER 2020**

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## 1 Summary

### Key Points

- (a) The loss ratios currently being used include a review and assessment of the incurred impacts associated with the COVID-19 pandemic.

### 1.1 Valuation Schedule (Fiscal Year 2020)

The September 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>decreased</u> 0.7 points to 122.3%; discount rate <u>increased</u> 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>decreased</u> 5.8 points to 116.5%; accident year 2020 loss ratio <u>decreased</u> 5.7 points to 119.5 %; discount rate <u>increased</u> 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>decreased</u> 7.8 points to 111.7 %; discount rate <u>decreased</u> 92 basis points; no change to selected margins for adverse deviations
Jun. 30, 2020 (completed)	0.29% mfad 25 bp	Aug. 2020	update valuation: accident year 2020 loss ratio <u>decreased</u> 16.3 points to 95.4%; discount rate <u>decreased</u> by 37 basis points; selected margins for adverse deviations were updated
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.

### 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 / Regulation<sup>1</sup>**

There have been no changes in these descriptions since last month’s Highlights.

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 (June 30, 2020), consideration of the 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 December 31, 2019).

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 4<sup>th</sup>, 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 liabilities<sup>2</sup> booked by accident year<sup>3</sup>. The left chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present

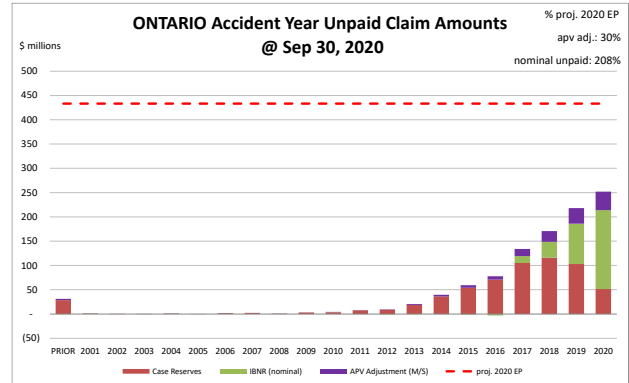
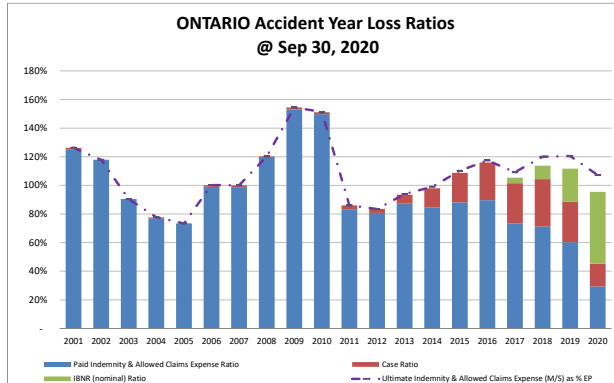
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<sup>1</sup>This url to a pdf is to a helpful guide on how bills become laws: <https://www.ola.org/sites/default/files/common/how-bills-become-law-en.pdf>.

<sup>2</sup>Claim 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.

<sup>3</sup>The 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”.

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 (\$129.7 million – see the following table) represents 30% 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	613,658	59.6%
ibnr	286,388	27.8%
M/S apv adjust.	129,659	12.6%
<b>M/S total</b>	<b>1,029,705</b>	<b>100.0%</b>

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 86% of the IBNR balance relates to accident years 2019 and 2020 (see Exhibit B). Approximately 83% 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 5% 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	220,900	83.6%
prem def/(dpac)	13,108	5.0%
M/S apv adjust.	30,148	11.4%
<b>M/S total</b>	<b>264,156</b>	<b>100.0%</b>

policy liabilities (\$000s)

	amt	%
claim	900,046	69.6%
premium	234,008	18.1%
M/S apv adjust.	159,807	12.4%
<b>M/S total</b>	<b>1,293,861</b>	<b>100.0%</b>

## 2 Activity during the Month of September 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 Report<sup>4</sup>.

*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	(298)	(298)	12,390	2,994	(12,564)	(3,891)	(174)	(897)
2018	(202)	(202)	2,127	(291)	2,797	3,318	4,924	3,027
2019	(180)	(180)	2,347	(294)	(329)	(336)	2,019	(629)
2020	33,633	(3,093)	13,168	(168)	6,819	(4,043)	19,986	(4,210)
TOTAL	32,953	(3,773)	30,033	2,242	(3,278)	(4,952)	26,755	(2,710)

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

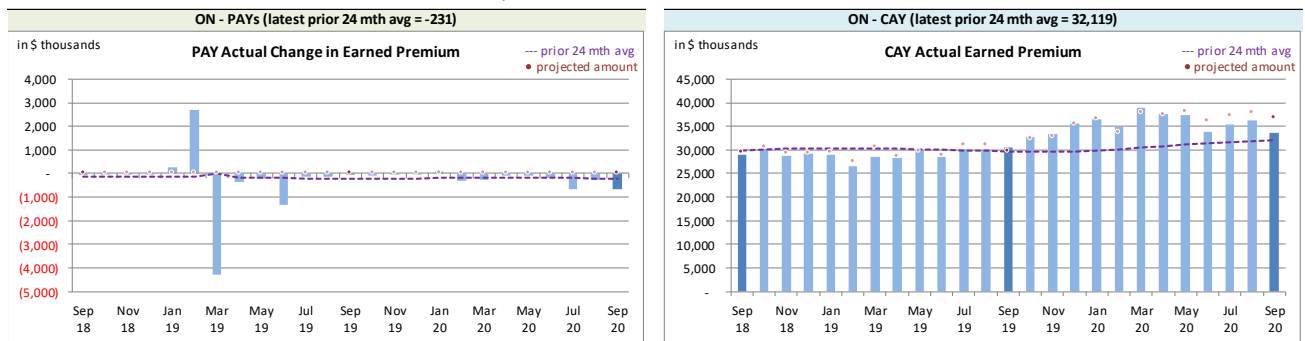
It is unusual to see actual earned premium transactions affecting prior accident years beyond the first prior at this time in the calendar year. We have identified that the prior accident years changes in the month reflects system sweep activity undertaken by two members in responding to audit findings.

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**<sup>5</sup> 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.

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

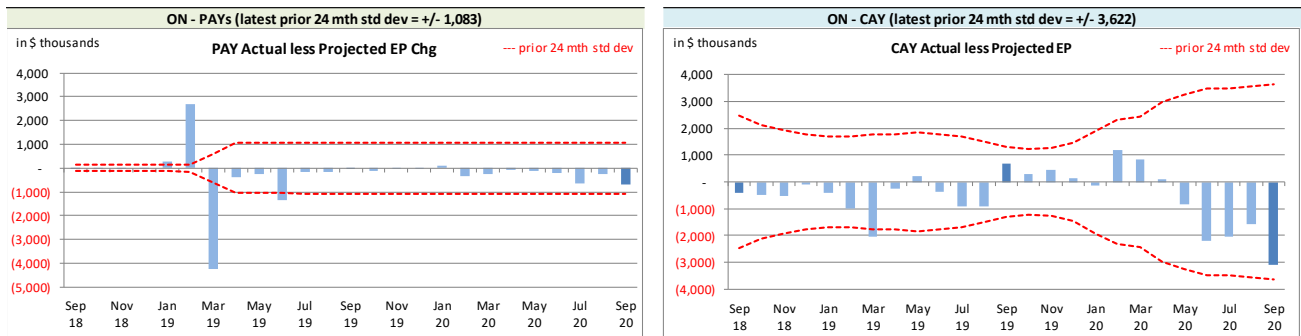
<sup>5</sup>Premium is earned on a daily basis based on the transaction term measured in days. As a result, months with 31 days earned relatively more than those with 30 days, and February earns the least.

On Latest \$ thousands		
Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(231)	32,119
std dev	1,083	3,622
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*

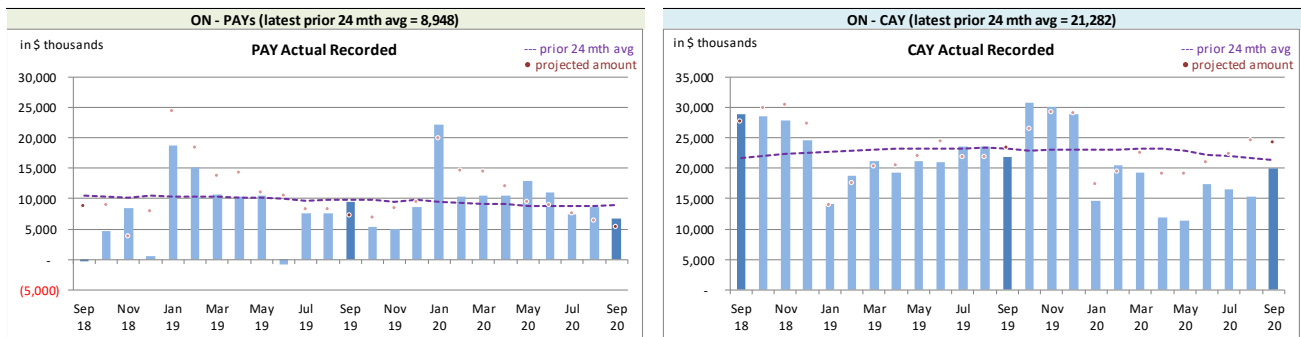


We project **earned premium** changes from known unearned premium balances and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years’ (PAYs) bias<sup>6</sup>, with actuals generally lower than projected, although 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 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.

*Ontario RSP Actual Recorded by Calendar Month*

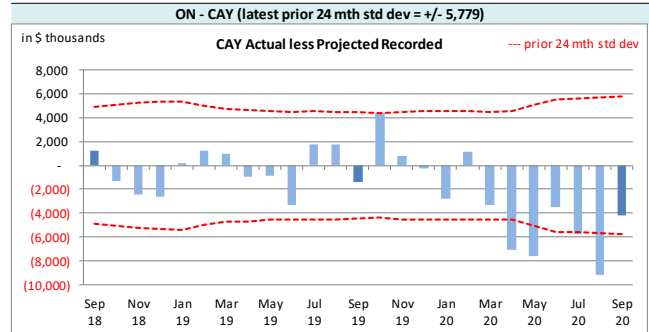
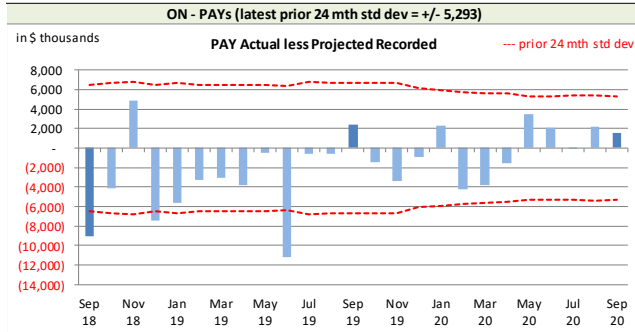


**Recorded** activity variances from the previous month’s projections are shown in the following charts,

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

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		
<b>Recorded</b>	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)	8,948	21,282
std dev	5,293	5,779
A-P <> std dev	3	4
% <> std dev	12.0%	16.0%
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). Bias<sup>7</sup> has been indicated at a 95% confidence level on a rolling 25-month basis (7 of 25 variances were positive); however, on a lagging 12-month basis, bias has not been indicated (5 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 16% 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 (9 of 25 variances were positive).

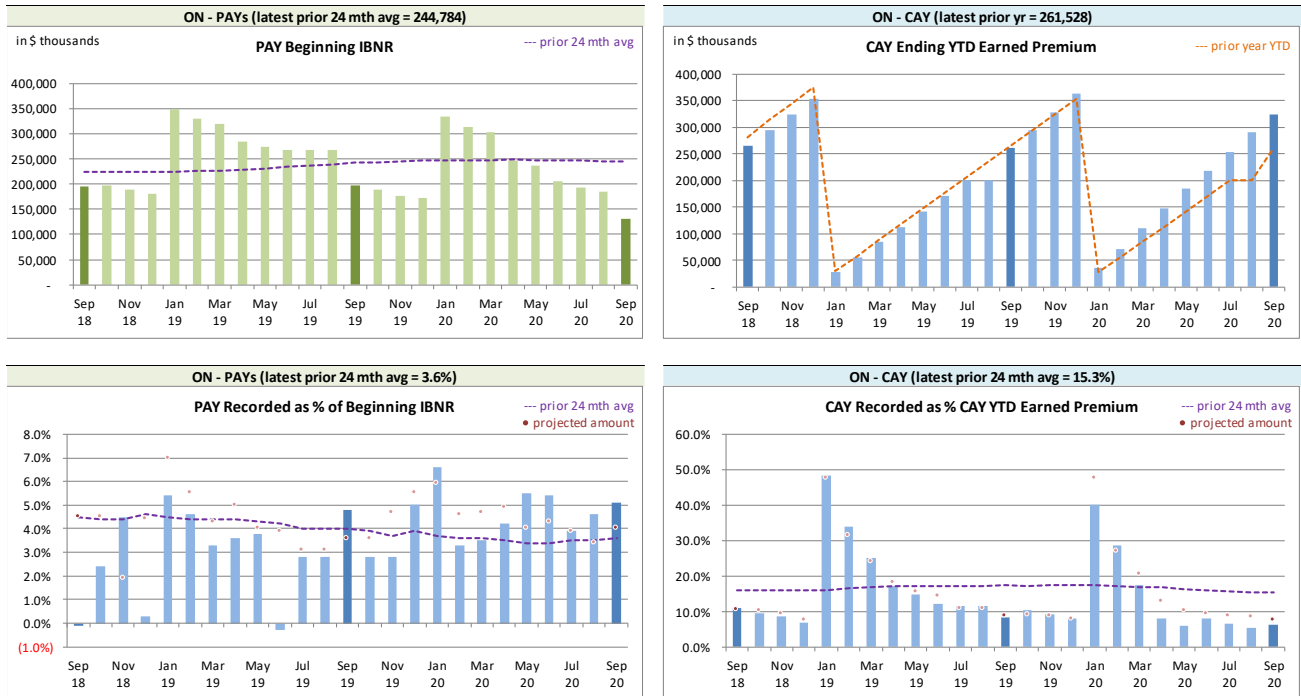
The method for establishing IBNR adjusts automatically for changes in **earned premium** and **recorded** claims activity level (see sections 2.2 and 3).

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).

<sup>7</sup> 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.



*Ontario RSP Levels that influence<sup>8</sup> 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:

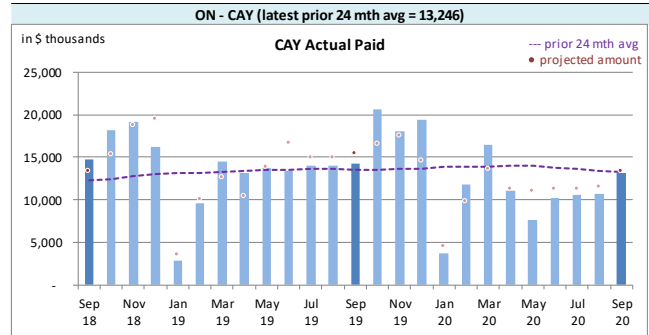
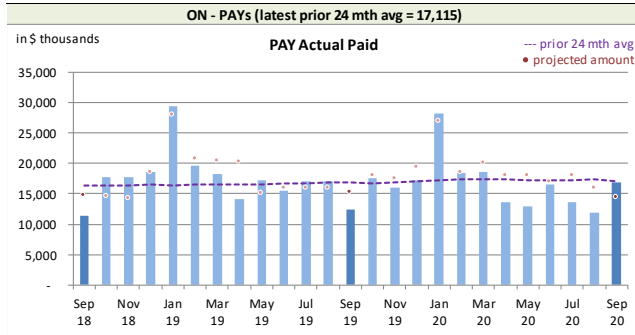
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a CAY becomes a PAY (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYS’ ultimates (will show up as a beginning IBNR change one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

**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.

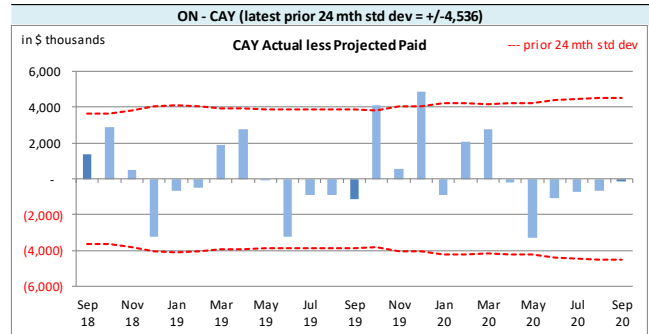
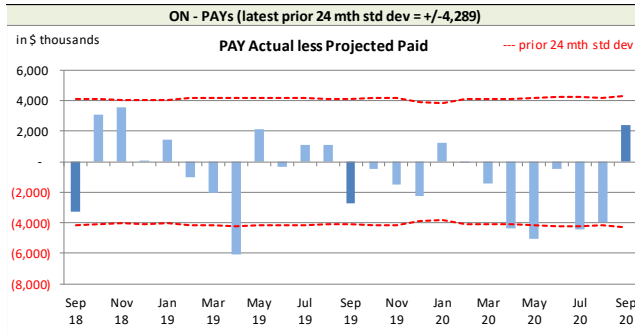
<sup>8</sup>Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected LR 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.

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



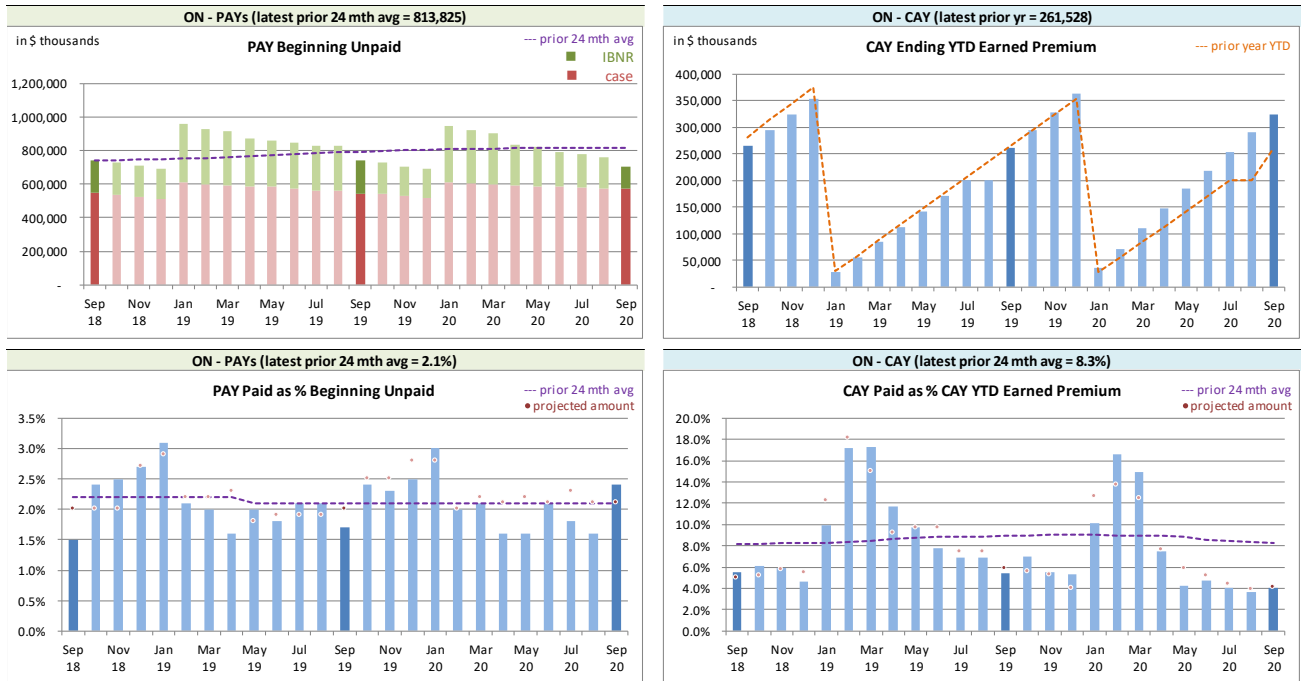
On Latest \$ thousands		
	<b>Paid</b>	
Mthly Avg Paid (prior 24 mths)	PAYS 17,115	CAY 13,246
std dev	4,289	4,536
A-P <> std dev	4	2
% <> std dev	16.0%	8.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

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 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 (10 of 25 variances are positive).

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

*Ontario RSP Levels that influence<sup>9</sup> 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 IBNR<sup>10</sup>, and factors are applied to the nominal unpaid claims liability (case plus IBNR) to determine 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

<sup>9</sup>Our 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.

<sup>10</sup>For ease of discussion, “IBNR” is used in place of “provisions for incurred but not recorded (IBNR) and development”.

and the associated one-month projections from last month’s Report.

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

Table 02

Accident Year	IBNR		actuarial present value adjustments				IBNR + actuarial present value adjustments	
	Actual	Actual less Projected	Discount Amount		Provisions for Adverse Deviations		Actual	Actual less Projected
			Actual	Actual less Projected	Actual	Actual less Projected		
Prior	8,121	577	(2,825)	26	40,247	(382)	45,543	221
2018	32,780	(3,256)	(1,190)	-	23,178	8	54,768	(3,248)
2019	83,202	428	(1,675)	(1)	33,578	17	115,105	444
2020	162,285	1,260	(1,924)	25	40,270	(524)	200,631	761
<b>TOTAL</b>	<b>286,388</b>	<b>(991)</b>	<b>(7,614)</b>	<b>50</b>	<b>137,273</b>	<b>(881)</b>	<b>416,047</b>	<b>(1,822)</b>

The IBNR provision is \$1.0 million lower 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:	13,108	(481)	30,148	(767)	43,256	(1,248)
balance as % unearned premium:	5.9%	(0.1%)	13.6%	-	19.6%	(0.1%)
actual unearned premium:	220,900					
less projected:	(5,462)					

### 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 loss<sup>11</sup> 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 expenses<sup>12</sup>, 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 96.1% rather than 95.4% (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.)

<sup>11</sup>“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).

<sup>12</sup>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 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	(110,730)	(34.4%)	(13,638)	(4.2%)	(124,368)	(38.7%)	(2,884)	3.4%
CAY	309,113	96.1%	38,346	11.9%	347,459	108.0%	35,480	(0.1%)
TOTAL	198,383	61.7%	24,708	7.7%	223,091	69.4%	32,596	3.4%

(“% 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 Aug. 2020	Actual Sep. 2020	Projected Oct. 2020	Projected Nov. 2020	Projected Dec. 2020
		prior	2,764	2,713	2,635	2,564	2,483
		2001	123	123	119	116	112
		2002	(50)	(50)	(47)	(47)	(45)
		2003	16	16	15	15	14
		2004	203	204	195	192	184
		2005	(43)	(43)	(41)	(41)	(39)
		2006	206	203	196	193	186
		2007	205	204	199	193	187
		2008	77	78	77	75	72
		2009	356	355	344	337	325
		2010	480	761	730	717	688
		2011	545	431	424	409	401
		2012	454	(515)	(473)	(480)	(443)
		2013	1,405	1,453	1,418	1,376	1,338
		2014	2,870	3,196	3,110	3,024	2,932
discount rate		2015	2,956	3,736	3,659	3,541	3,452
0.29%		2016	3,267	3,757	3,678	3,590	3,467
		2017	31,203	28,921	27,652	26,410	25,334
interest rate margin		2018	60,271	54,768	52,669	50,616	48,527
25 basis pts		2019	117,761	115,105	111,650	108,083	105,256
		2020	185,137	200,631	207,912	211,523	204,226
		<b>TOTAL</b>	<b>410,206</b>	<b>416,047</b>	<b>416,121</b>	<b>412,406</b>	<b>398,657</b>
		Change		5,841	74	(3,715)	

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 Aug. 2020	Actual Sep. 2020	Projected Oct. 2020	Projected Nov. 2020	Projected Dec. 2020
	-	prior	(47)	(89)	(86)	(86)	(83)
	126.2%	2001	27	27	26	26	25
	117.8%	2002	(51)	(51)	(48)	(48)	(46)
	90.4%	2003	14	14	13	13	12
	77.6%	2004	98	99	94	93	88
	73.4%	2005	(43)	(43)	(41)	(41)	(39)
	100.1%	2006	28	26	25	25	24
	99.9%	2007	1	2	2	2	2
	120.2%	2008	5	7	7	7	7
	154.4%	2009	69	69	66	65	62
	151.2%	2010	94	384	365	361	343
	85.9%	2011	(155)	(263)	(250)	(247)	(235)
	83.2%	2012	(363)	(1,245)	(1,183)	(1,171)	(1,112)
	93.4%	2013	(398)	(336)	(319)	(316)	(300)
	97.7%	2014	(918)	(325)	(309)	(306)	(291)
	108.2%	2015	(2,485)	(1,444)	(1,372)	(1,358)	(1,290)
	114.9%	2016	(3,636)	(2,936)	(2,789)	(2,650)	(2,517)
	105.3%	2017	16,027	14,225	13,514	12,838	12,196
	113.7%	2018	37,933	32,780	31,141	29,584	28,105
	111.7%	2019	85,422	83,202	80,290	77,319	75,077
	95.4%	2020	150,185	162,285	165,856	166,196	157,991
		<b>TOTAL</b>	<b>281,807</b>	<b>286,388</b>	<b>285,002</b>	<b>280,306</b>	<b>268,019</b>
		Change		4,581	(1,386)	(4,696)	

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

EXHIBIT C

Premium Liabilities

TABLE EXHIBIT C

	Amounts in \$000s				
Premium Liabilities	Actual Aug. 2020	Actual Sep. 2020	Projected Oct. 2020	Projected Nov. 2020	Projected Dec. 2020
(1) unearned premium (UP)	217,630	220,900	227,977	243,706	238,631
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	117.1%	119.6%	122.4%	125.3%	128.4%
(3) expected future costs {(1) x (2)}	254,904	264,156	279,002	305,301	306,285
(4) premium deficiency / (deferred policy acquisition cost)	37,274	43,256	51,025	61,595	67,654
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	103.8%	105.9%	108.4%	111.0%	113.7%
(6) expected future costs {(1) x (5)}	225,813	234,008	247,157	270,453	271,323
(7) premium deficiency / (deferred policy acquisition cost)	8,183	13,108	19,180	26,747	32,692

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	26,097	(83)	26,014	(182)	156	2,610	(18)	2,592	2,566	28,580
2001	868	25	893	(7)	6	89	(1)	88	87	980
2002	57	(46)	11	-	-	1	-	1	1	12
2003	6	12	18	-	-	2	-	2	2	20
2004	898	88	986	(11)	9	99	(1)	98	96	1,082
2005	37	(39)	(2)	-	-	-	-	-	-	(2)
2006	1,659	24	1,683	(25)	22	168	(3)	165	162	1,845
2007	1,918	2	1,920	(31)	27	192	(3)	189	185	2,105
2008	673	7	680	(12)	10	68	(1)	67	65	745
2009	2,696	62	2,758	(52)	44	276	(5)	271	263	3,021
2010	3,287	343	3,630	(73)	62	363	(7)	356	345	3,975
2011	6,833	(235)	6,598	(112)	99	660	(11)	649	636	7,234
2012	8,044	(1,112)	6,932	(104)	90	693	(10)	683	669	7,601
2013	17,219	(300)	16,919	(203)	169	1,692	(20)	1,672	1,638	18,557
2014	33,148	(291)	32,857	(296)	263	3,286	(30)	3,256	3,223	36,080
2015	49,540	(1,290)	48,250	(338)	289	4,825	(34)	4,791	4,742	52,992
2016	63,322	(2,517)	60,805	(365)	304	6,081	(36)	6,045	5,984	66,789
2017	94,506	12,196	106,702	(747)	640	13,338	(93)	13,245	13,138	119,840
2018	110,070	28,105	138,175	(1,105)	967	20,726	(166)	20,560	20,422	158,597
2019	100,963	75,077	176,040	(1,584)	1,408	30,631	(276)	30,355	30,179	206,219
PAYs (sub-total):	521,841	110,028	631,869	(5,247)	4,565	85,800	(715)	85,085	84,403	716,272
CAY (2020)	99,785	157,991	257,776	(2,320)	2,062	46,915	(422)	46,493	46,235	304,011
claims liabilities:	621,626	268,019	889,645	(7,567)	6,627	132,715	(1,137)	131,578	130,638	1,020,283
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*
premium liabilities:	238,631	32,692	271,323	(1,896)	1,625	35,481	(248)	35,233	34,962	306,285
*Total may not be sum of parts, as apvs apply to future costs within UPR										
policy liabilities:			1,160,968	(9,463)	8,252	168,196	(1,385)	166,811	165,600	1,326,568

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 (Jun. 30, 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%	9.9%
2001	10.0%	10.0%	10.0%	10.0%
2002	10.0%	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%	9.9%	10.0%
2015	10.0%	10.0%	9.8%	10.0%
2016	10.0%	10.0%	9.9%	10.0%
2017	12.5%	12.5%	12.5%	12.5%
2018	15.0%	15.0%	14.5%	15.0%
2019	17.4%	17.5%	14.5%	17.4%
2020	17.8%	20.0%	6.2%	18.2%
2021	12.4%	20.0%	5.2%	13.1%
prem liab	12.4%	20.0%	5.2%	13.1%

discount rate: 0.29%  
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 (0.29%), the prior valuation assumption (0.66%) 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%	0.00%	0.29%	0.79%	1.29%	1.79%	0.66%	1.41%
2002 & prior	29,401	29,401	29,356	28,996	28,648	28,304	29,091	28,564
2003	8	8	8	8	7	7	8	7
2004	1,053	1,053	1,051	1,031	1,011	992	1,036	1,007
2005	42	42	42	41	40	40	42	40
2006	1,937	1,937	1,931	1,883	1,836	1,792	1,895	1,825
2007	2,274	2,274	2,266	2,203	2,143	2,086	2,219	2,129
2009	3,231	3,231	3,217	3,114	3,016	2,923	3,141	2,993
2010	4,369	4,369	4,350	4,201	4,061	3,928	4,240	4,028
2011	6,777	6,777	6,752	6,556	6,370	6,194	6,607	6,327
2012	8,216	8,216	8,189	7,981	7,785	7,599	8,035	7,740
2013	15,914	15,914	15,872	15,545	15,236	14,943	15,629	15,163
2014	32,048	32,048	31,986	31,501	31,043	30,606	31,627	30,936
2015	50,104	50,104	50,028	49,441	48,879	48,337	49,589	48,744
2016	66,884	66,884	66,793	66,057	65,350	64,669	66,250	65,186
2017	121,722	121,722	121,525	120,116	118,754	117,428	120,485	118,425
2018	160,436	160,436	160,122	158,060	156,042	154,094	158,595	155,565
2019	204,972	204,972	204,486	201,453	198,484	195,645	202,225	197,795
2020	295,567	295,567	294,853	290,476	286,192	282,102	291,589	285,200
<b>Total</b>	<b>1,005,787</b>	<b>1,005,787</b>	<b>1,003,656</b>	<b>989,467</b>	<b>975,678</b>	<b>962,448</b>	<b>993,114</b>	<b>972,450</b>
	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%	0.00%	0.29%	0.79%	1.29%	1.79%	0.66%	1.41%
<b>Total</b>	<b>2,131</b>	<b>2,131</b>	<b>-</b>	<b>(14,189)</b>	<b>(27,978)</b>	<b>(41,208)</b>	<b>(10,542)</b>	<b>(31,206)</b>
	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%	0.00%	0.29%	0.79%	1.29%	1.79%	0.66%	1.41%
2002 & prior	0.2%	0.2%	-	(1.2%)	(2.4%)	(3.6%)	(0.9%)	(2.7%)
2003	-	-	-	-	(12.5%)	(12.5%)	-	(12.5%)
2004	0.2%	0.2%	-	(1.9%)	(3.8%)	(5.6%)	(1.4%)	(4.2%)
2005	-	-	-	(2.4%)	(4.8%)	(4.8%)	-	(4.8%)
2006	0.3%	0.3%	-	(2.5%)	(4.9%)	(7.2%)	(1.9%)	(5.5%)
2007	0.4%	0.4%	-	(2.8%)	(5.4%)	(7.9%)	(2.1%)	(6.0%)
2009	0.4%	0.4%	-	(3.2%)	(6.2%)	(9.1%)	(2.4%)	(7.0%)
2010	0.4%	0.4%	-	(3.4%)	(6.6%)	(9.7%)	(2.5%)	(7.4%)
2011	0.4%	0.4%	-	(2.9%)	(5.7%)	(8.3%)	(2.1%)	(6.3%)
2012	0.3%	0.3%	-	(2.5%)	(4.9%)	(7.2%)	(1.9%)	(5.5%)
2013	0.3%	0.3%	-	(2.1%)	(4.0%)	(5.9%)	(1.5%)	(4.5%)
2014	0.2%	0.2%	-	(1.5%)	(2.9%)	(4.3%)	(1.1%)	(3.3%)
2015	0.2%	0.2%	-	(1.2%)	(2.3%)	(3.4%)	(0.9%)	(2.6%)
2016	0.1%	0.1%	-	(1.1%)	(2.2%)	(3.2%)	(0.8%)	(2.4%)
2017	0.2%	0.2%	-	(1.2%)	(2.3%)	(3.4%)	(0.9%)	(2.6%)
2018	0.2%	0.2%	-	(1.3%)	(2.5%)	(3.8%)	(1.0%)	(2.8%)
2019	0.2%	0.2%	-	(1.5%)	(2.9%)	(4.3%)	(1.1%)	(3.3%)
2020	0.2%	0.2%	-	(1.5%)	(2.9%)	(4.3%)	(1.1%)	(3.3%)
<b>Total</b>	<b>0.2%</b>	<b>0.2%</b>	<b>-</b>	<b>(1.4%)</b>	<b>(2.8%)</b>	<b>(4.1%)</b>	<b>(1.1%)</b>	<b>(3.1%)</b>
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

EXHIBIT G

Page 1 of 2

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	2,764	(72)	21	-	(51)	(1.8%)	2,713
2001	123	(3)	3	-	-	-	123
2002	(50)	1	(1)	-	-	-	(50)
2003	16	-	-	-	-	-	16
2004	203	(5)	6	-	1	0.5%	204
2005	(43)	-	-	-	-	-	(43)
2006	206	(5)	2	-	(3)	(1.5%)	203
2007	205	(6)	5	-	(1)	(0.5%)	204
2008	77	(1)	2	-	1	1.3%	78
2009	356	(8)	7	-	(1)	(0.3%)	355
2010	480	(12)	293	-	281	58.5%	761
2011	545	(17)	(97)	-	(114)	(20.9%)	431
2012	454	(17)	(952)	-	(969)	(213.4%)	(515)
2013	1,405	(45)	93	-	48	3.4%	1,453
2014	2,870	(89)	415	-	326	11.4%	3,196
2015	2,956	(117)	897	-	780	26.4%	3,736
2016	3,267	(184)	674	-	490	15.0%	3,757
2017	31,203	(1,135)	(1,147)	-	(2,282)	(7.3%)	28,921
2018	60,271	(2,255)	(3,248)	-	(5,503)	(9.1%)	54,768
2019	117,761	(3,100)	444	-	(2,656)	(2.3%)	115,105
2020	185,137	14,733	761	-	15,494	8.4%	200,631
<b>Grand Total</b>	<b>410,206</b>	<b>7,663</b>	<b>(1,822)</b>	<b>-</b>	<b>5,841</b>	<b>1.4%</b>	<b>416,047</b>

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	(47)	-	(42)	-	(42)	89.4%	(89)	
2001	27	-	-	-	-	-	27	
2002	(51)	1	(1)	-	-	-	(51)	
2003	14	-	-	-	-	-	14	
2004	98	(1)	2	-	1	1.0%	99	
2005	(43)	-	-	-	-	-	(43)	
2006	28	-	(2)	-	(2)	(7.1%)	26	
2007	1	-	1	-	1	100.0%	2	
2008	5	-	2	-	2	40.0%	7	
2009	69	(1)	1	-	-	-	69	
2010	94	(1)	291	-	290	308.5%	384	
2011	(155)	2	(110)	-	(108)	69.7%	(263)	
2012	(363)	4	(886)	-	(882)	243.0%	(1,245)	
2013	(398)	4	58	-	62	(15.6%)	(336)	
2014	(918)	9	584	-	593	(64.6%)	(325)	
2015	(2,485)	25	1,016	-	1,041	(41.9%)	(1,444)	
2016	(3,636)	36	664	-	700	(19.3%)	(2,936)	
2017	16,027	(801)	(1,001)	-	(1,802)	(11.2%)	14,225	
2018	37,933	(1,897)	(3,256)	-	(5,153)	(13.6%)	32,780	
2019	85,422	(2,648)	428	-	(2,220)	(2.6%)	83,202	
2020	150,185	10,840	1,260	-	12,100	8.1%	162,285	
<b>Grand Total</b>	<b>281,807</b>	<b>5,572</b>	<b>(991)</b>	<b>-</b>	<b>4,581</b>	<b>1.6%</b>	<b>286,388</b>	