

ONTARIO RISK SHARING POOL

AUGUST 2022 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

Related Bulletin: [F2022-072 ON RSP May 2022 Operational Report](#)

For your convenience, bookmarks have been added to this document. To view them, please click on the BOOKMARK tab at the left.

Should you require any further information, please call Philippe Gosselin, VP Actuarial & CRO at (416) 863-1750 x4968.

ACTUARIAL HIGHLIGHTS**RSP ONTARIO****OPERATIONAL REPORT****AUGUST 2022**

TABLE OF CONTENTS

1	Summary	2
1.1	Valuation Schedule (Fiscal Year 2022)	2
1.2	New Valuation	3
1.3	Appointed Actuary and Hybrid Actuarial Services Model	5
1.4	Consideration of Recent Legal Decisions and Changes in Legislation / Regulation	5
1.5	Current Provision Summary	5
2	Activity since previous valuation implementation	7
2.1	Recorded Premium and Claims Activity	7
2.1.a	Actual vs. Projected (AvsP): Earned Premium	7
2.1.b	AvsP: Recorded Indemnity & Allowed Claims Expense	9
2.1.c	AvsP: Paid Indemnity & Allowed Claims Expense	11
2.2	Actuarial Provisions	12
3	Ultimate Loss Ratio Matching Method	13
4	Calendar Year-to-Date Results	13
5	Current Operational Report – Additional Exhibits	14
6	EXHIBITS	15

1 Summary

Note to members: this is the quarterly Actuarial Highlights we will release going forward to replace the monthly Actuarial Highlights. The next report will be available for reporting month October 2022 in November 2022, in line with the valuation implementation schedule. Please contact us with any questions or concerns in regards to this matter.

1.1 Valuation Schedule (Fiscal Year 2022)

The August 2022 Operational Report incorporates the results of an updated valuation (as at June 30, 2022) – the impact of the implementation of the valuation is discussed in section 1.2. The following table summarizes the valuation implementations scheduled for fiscal year 2022.

ONTARIO RISK SHARING POOL FISCAL YEAR 2021 – SCHEDULE OF VALUATIONS			
Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep. 30, 2021 (completed)	0.88% mfad ¹ 25 bp	Oct. 2021	update valuation (roll-forward): accident year 2021 loss ratio <u>decreased</u> 2.5 points to 90.6%; discount rate <u>increased</u> 9 basis points; no change to selected margins for adverse deviations
Dec. 31, 2021 (completed)	1.11% mfad 25 bp	Mar. 2022	update valuation: accident year 2021 loss ratio <u>decreased</u> 4.0 points to 86.6 % and accident year 2022 loss ratio <u>increased</u> 9.3 points to 122.0 %; discount rate <u>increased</u> 23 basis points; no change to selected margins for adverse deviations
Mar. 31, 2022 (completed)	2.25% mfad 25 bp	May. 2022	update valuation (roll-forward): accident year 2022 loss ratio remained unchanged at 122.0%; discount rate <u>increased</u> 114 basis points; no change to selected margins for adverse deviations
Jun. 30, 2022 (completed)	3.17% mfad – 25 bp	Aug. 2022	update valuation: accident year 2022 loss ratio <u>decreased</u> 6.6 points to 115.4%; discount rate <u>increased</u> 92 basis points; no change to selected margins for adverse deviations
Sep. 30, 2022	% mfad -- bp	Oct. 2022	update valuation (roll-forward):

Under the proposed schedule for fiscal year 2022, the off-half valuation quarters ending March 31, 2022 and September 30, 2022 would not reflect a full valuation update of assumptions, but would

¹ The selected interest rate margin is limited to reducing the selected discount rate to 0%; the approach is that if the net impact is negative, the discount rate will be capped at 0%.

rather roll-forward key assumptions from the previous valuation.

1.2 New Valuation

A valuation of the Ontario Risk Sharing Pool (“RSP”) as at June 30, 2022 has been completed since last month’s Operational Report and the results of that valuation have been incorporated into this month’s Report. The valuation was completed by the Facility Association’s internal actuarial group in conjunction with, and approved by, the Appointed Actuary, under the hybrid model for actuarial services.

The valuation implementation impact is summarized in the following two tables, where the abbreviations PAYs refers to prior accident years, CAY refers to the current accident year (2022), and “Prem Def” refers to premium deficiency / deferred acquisition costs impacts.

Summary of Impact (\$000s) of Implementing Result of Valuation as at Jun. 30, 2022²

Ontario	unfav / (fav) for the month and ytd					
	IMPACT in \$000s from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
	[1]	[2]	[3]	[4]	[5]	[6]
PAYs	(22,786)	(2,534)	(25,320)	(18,558)	(11,185)	(55,063)
CAY	(20,697)	(2,293)	(22,990)	(6,440)	-	(29,430)
Prem Def	(12,333)	(826)	(13,159)	(6,360)	-	(19,519)
TOTAL	(55,816)	(5,653)	(61,469)	(31,358)	(11,185)	(104,012)

As indicated in the preceding table, the incorporation of the new valuation had an estimated **\$104.0 million favourable impact** on the month’s net result from operations, subtracting an estimated 26.3 points (see following table) to the **year-to-date Combined Operating Ratio** to end at **115.6%**. The favourable impact is due to the updates associated with the full review for the June valuation assumptions including an increase in discounting due to increases in government of Canada benchmark bond yields.

²In these tables, “PAYs” refers to prior accident years, “CAY” refers to the current accident year, and “Prem Def” refers to the provision for premium deficiency or the deferred policy acquisition asset (as applicable). “Nominal” refers to changes excluding any actuarial present value adjustments, whereas “apv adj.” refers to actuarial present value adjustments.

The columns under the heading “ults & payout patterns” reflect the impact of changes in the valuation selected ultimates and claims payment patterns (i.e. based on unchanged selection of discount rates and margins for adverse deviation). The column “dsct rate” reflects the impact of the change in the selected discount rate and the column “margins” reflects the impact of any changes in selected margins for adverse deviations.

Summary of Impact (% YTD EP) of Implementing Result of Valuation as at Jun. 30, 2022

Ontario	ytd EP 395,695 (actual)					
	IMPACT unfav / (fav) as % ytd EP from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal	apv adj.	sub-tot	apv adj.	apv adj.	TOTAL
	[1]	[2]	[3]	[4]	[5]	[6]
PAYs	(5.8%)	(0.6%)	(6.4%)	(4.7%)	(2.8%)	(13.9%)
CAY	(5.2%)	(0.6%)	(5.8%)	(1.6%)	-	(7.4%)
Prem Def	(3.1%)	(0.2%)	(3.3%)	(1.6%)	-	(4.9%)
TOTAL	(14.1%)	(1.4%)	(15.5%)	(7.9%)	(2.8%)	(26.3%)

The impact of the **nominal changes** is shown in column [1] of the two preceding summary tables. The change in the selected nominal ultimates was **favourable by \$55.8 million** overall. This reflects the impact attributable to the changes in the selected ultimate loss ratios (i.e. for each accident year, it is the product of life-to-date earned premium for the accident year and the change in the selected ultimate loss ratio). Due to the June valuation being a full review of assumptions, the impacts are driven by the update to method selections where methods were rolled forward from ELR-based to experience-based methods along with lower than expected levels of claims development. These positive impacts are compounded by the increase in discount rate as a result of higher government of Canada benchmark bond yields.

The **PAYs** overall showed a **\$22.8 million favourable** nominal variance or 3.1% of the PAYs nominal unpaid balance of \$730.1 million determined at the end of last month (July 2022), due to favourable valuation impacts. The favourable development was caused by lower than expected levels of claims development on Accident Benefits 2019 and prior accident years.

The **CAY** and premium deficiency impacts are a result of the change in the selected loss for accident year **2022 (decreased 6.6 points to 115.4%)**. This change is a result of two main factors:

- The valuation expected loss ratio update, which incorporates updated loss and premium trends and updated prior year ultimate loss ratios.

Better than expected current year results for short-tailed lines in the recent quarter. The impacts related to actuarial present value (“apv”) adjustments are split into the impact prior to any change in the selected discount rate and selected margins for adverse deviations or “MfADs” (at the level they were selected i.e. coverage and accident half-year), the impact of then updating the discount rate, and finally the impact of any changes to the MfADs (at the level they were selected). The changes in actuarial present value adjustments are shown in the preceding summary tables in columns [2], [4], and [5].

Column [2] recognizes that changing the nominal selections also changed the unpaid estimates (including changes to the relative mix by coverage, which had an impact on the weighted-average MfADs). It also reflects the fact that we updated the projected emergence of claims payments, resulting in a change in the projected cash flows. These changes generated a favourable change of \$5.7 million in the actuarial present value adjustments, prior to any changes in the selected discount rate and/or MfADs.

Updated projected cash flows were reviewed against the selected risk-free yield curve, derived from

Government of Canada benchmark bond yields monthly series using values for June 2022. Column [4] accounts for the change in the **discount rate** selected (increased 92 basis points to **3.17%**), indicating a favourable impact of \$31.4 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was \$25.0 million at August 2022 – this compares to the \$25.4 million change one would estimate as the impact by interpolation using the interest rate sensitivity table provided in last quarter’s Actuarial Highlights.

Column [5] accounts for any changes to selected MfADs. The selected **investment rate MfAD** was **left unchanged at 25 basis points** and the selected **claims development MfADs** at the coverage and accident year level were rolled forward one year with no changes to the selection of the MfADs themselves, in accordance with the Q2 full review (as per our usual practice, development margins are reviewed with the June 30 valuation). This roll forward of the claims development MfADs had a favourable implementation impact of \$11.2 million.

Consideration was given to recent legal decisions and changes in legislation / regulation as noted above and outlined in section 1.4.

1.3 Appointed Actuary and Hybrid Actuarial Services Model

The Annual General Meeting of the members of Facility Association (“FA”) appointed Mr. Cosimo Pantaleo as the Appointed Actuary at its meeting on March 3, 2022.

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.

1.4 Consideration of Recent Legal Decisions and Changes in Legislation / Regulation³

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.

There have been no significant legal decisions, changes in Legislation or Regulation recently. When significant items emerge, they will be added to this section.

1.5 Current Provision Summary

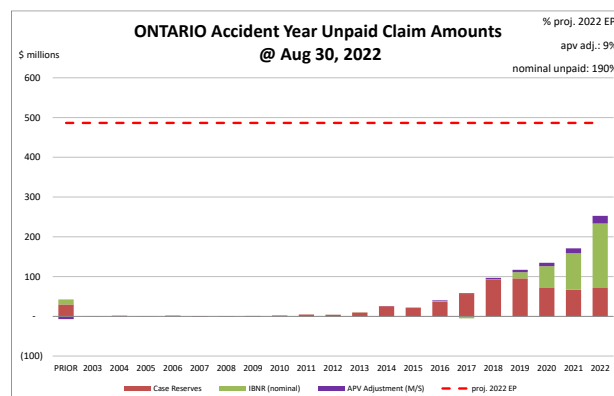
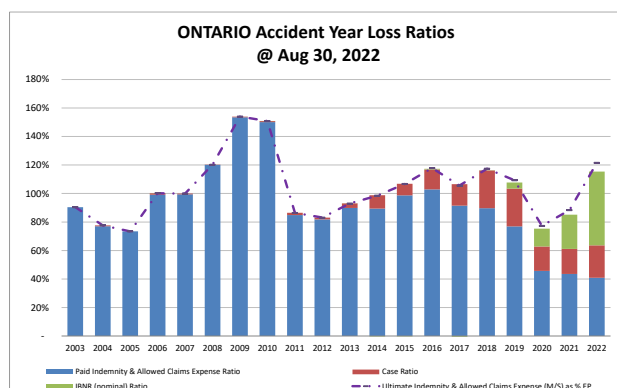
The following charts show the current levels of claim liabilities⁴ booked by accident year⁵. The left

³This 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>.

⁴Claim 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.

⁵The 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 2022 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 (\$45.6 million – see the following table) represents 9% of the earned premium projected for the full year 2022 (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.

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 2021 and 2022 (see Exhibit B). Approximately 80% of the M/S total claim liabilities are related to accident years 2018-2022 inclusive (i.e. the most recent 5 accident years), and approximately 5% is related to accident years 2012 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	263,212	79.5%
prem def/(dpac)	49,026	14.8%
M/S apv adjust.	18,716	5.7%
M/S total	330,954	100.0%

policy liabilities (\$000s)

	amt	%
claim	924,263	71.1%
premium	312,238	24.0%
M/S apv adjust.	64,354	4.9%
M/S total	1,300,855	100.0%

2 Activity since previous valuation implementation

2.1 Recorded Premium and Claims Activity

The following table summarizes the extent to which premiums and claims amounts recorded since the prior implementation differ from the prior projection.

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

AY Group	Share Year	Share Month	Actual Earned Premium (000s)	Actual minus Projected Earned Premium (000s)	Actual Paid Claims (000s)	Actual minus Projected Paid Claims (000s)	Actual Recorded Claims (000s)	Actual minus Projected Recorded Claims (000s)
PAY	2022	June	(44)	(44)	16,627	4,483	7,203	(2,710)
		July	5,216	5,216	15,016	(2,297)	4,153	(3,440)
		August	(4,016)	(4,016)	13,061	(2,199)	9,092	1,941
		PAY Total		1,156	1,156	44,704	(13)	20,448
CAY	2022	June	40,731	1,917	20,272	2,330	30,059	7,901
		July	42,742	1,607	20,506	2,914	29,332	3,955
		August	43,533	815	25,270	4,387	36,105	8,001
		CAY Total		127,006	4,339	66,048	9,631	95,496
Grand Total			128,162	5,495	110,752	9,618	115,944	15,648

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

Note that 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. The variances are also reviewed as part of the quarterly valuation process, as an indicator of changes in the claims development process or potential bias in ultimate claims estimates.

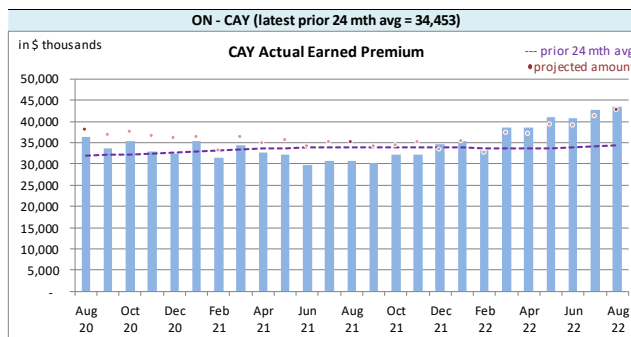
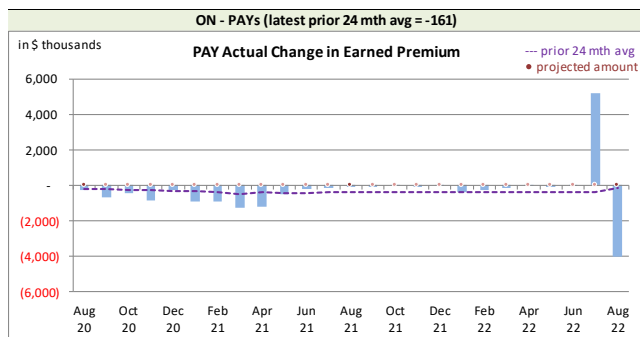
More detailed analysis and commentary on actual vs. projected for the most recent reporting months is provided below.

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

The following charts show actual **earned premium**⁶ 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.

⁶Premium 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.

Ontario RSP Actual **Earned Premium** by Calendar Month



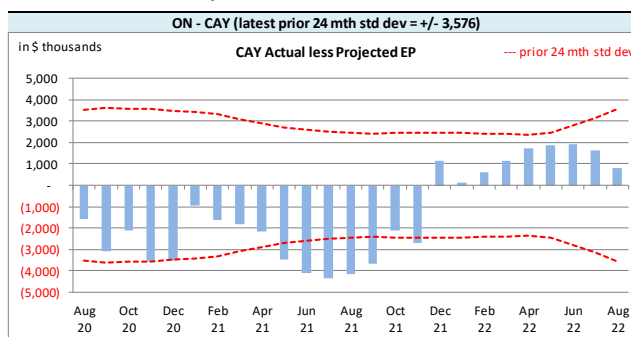
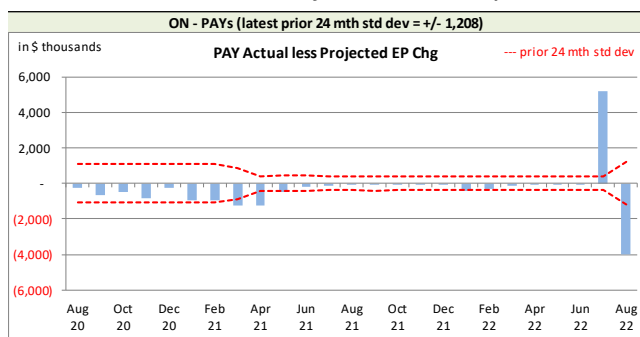
Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the preceding charts), although relatively high levels generally occur at the beginning of each year.

On Latest \$ thousands			
	Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(161)	34,453	
std dev	1,208	3,576	
A-P <> std dev	6	7	
% <> std dev	24.0%	28.0%	
norm <> std dev	31.7%	31.7%	
performance vs 24-mth avg:	better	no 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



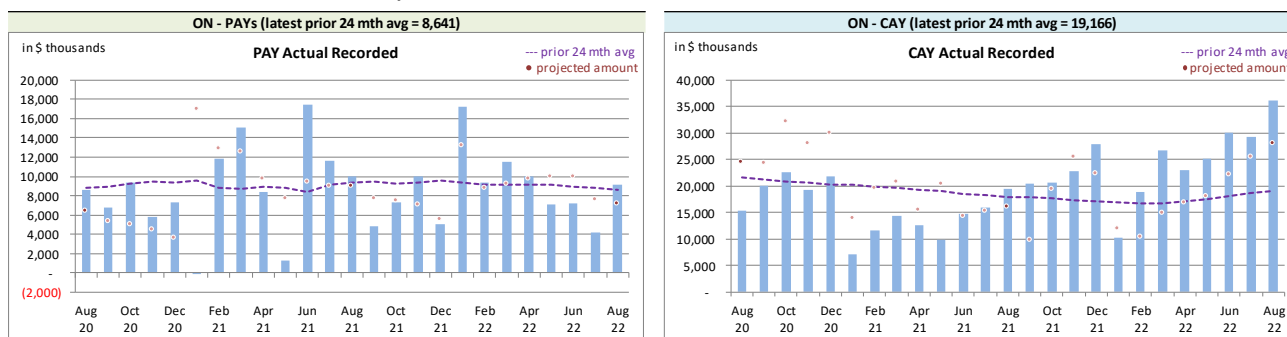
We project **earned premium** changes from known unearned premium balances and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYs) bias⁷, with actuals generally lower than projected, although the magnitude 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.

⁷The PAYs' variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

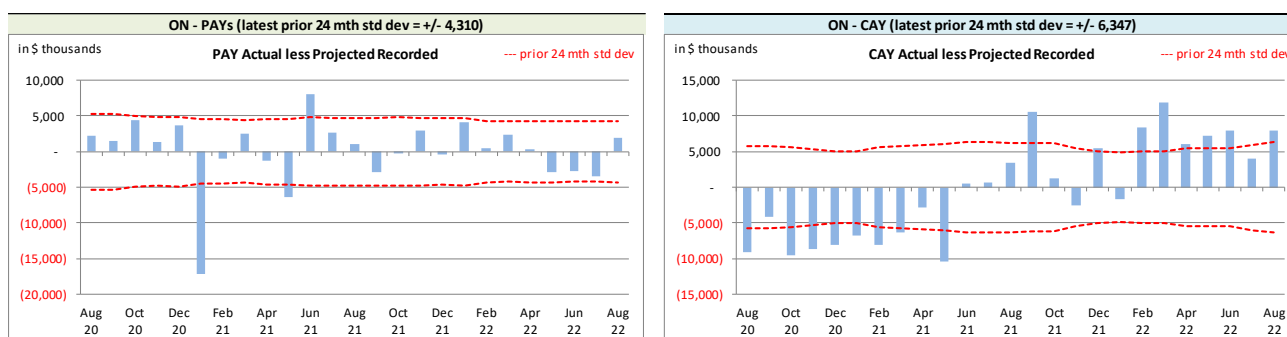
The following charts show actual **recorded** activity (**paid** and **case reserve** changes), in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

*Ontario RSP Actual **Recorded** by Calendar Month*



Recorded activity variances from the previous month’s projections are shown in the following charts, 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)		8,641	19,166
std dev		4,310	6,347
A-P <> std dev		3	16
% <> std dev		12.0%	64.0%
norm <> std dev		31.7%	31.7%
performance vs 24-mth avg:		better	worse

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). Bias⁸ has not been indicated at a 95% confidence level on a rolling 25-month basis (15 of 25 variances were positive).

The current accident year (CAY) **recorded** variances (preceding table on the left) fell outside of one

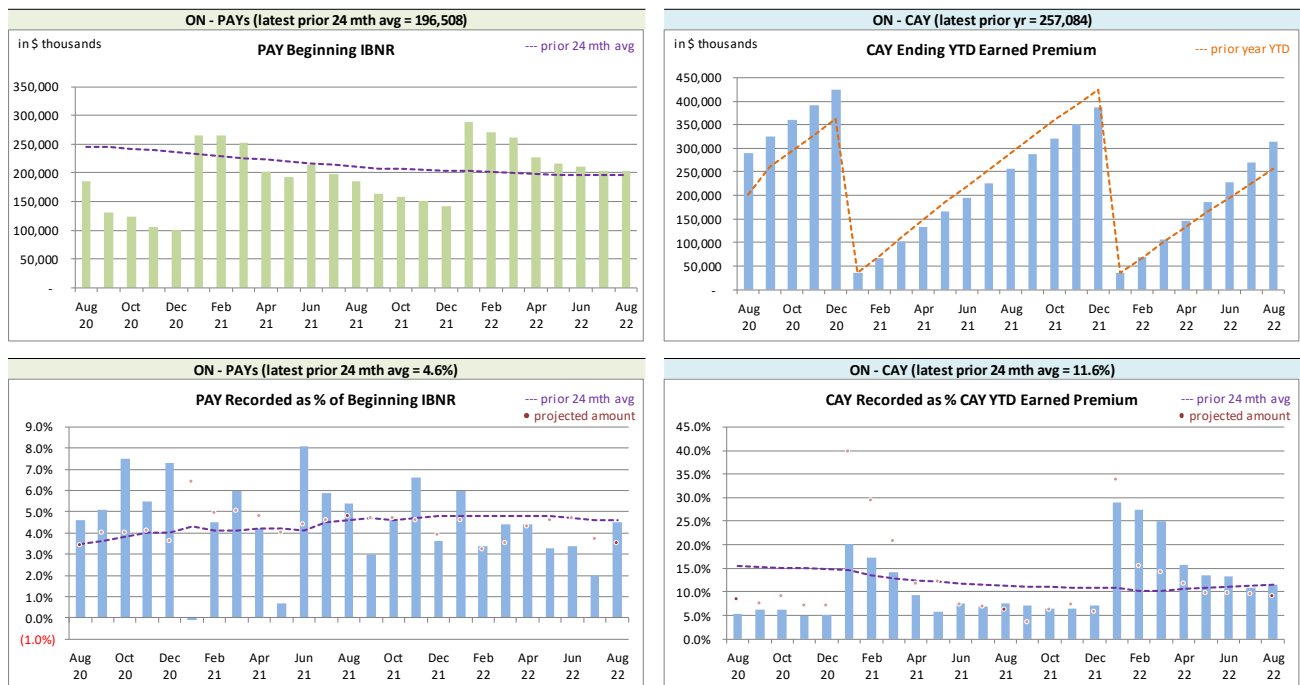
⁸ For the binomial distribution with 25 trials and an assumed 50% success probability, the 95% confidence range is 8 to 17 successes. That is, favourable or unfavourable counts of 0 to 7 or 18 to 25 out of 25 outcomes would suggest bias.

standard deviation 64% of the time over the last 25 calendar months suggesting that the projection process has performed worse than simply projecting the prior 24-month average amount. Bias has been indicated at a 95% confidence level on a rolling 25-month basis (13 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).

Ontario RSP Levels that influence⁹ 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

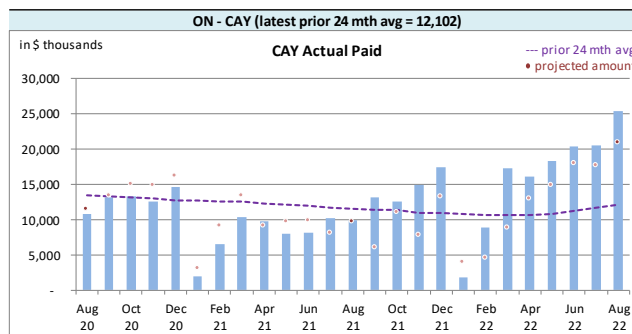
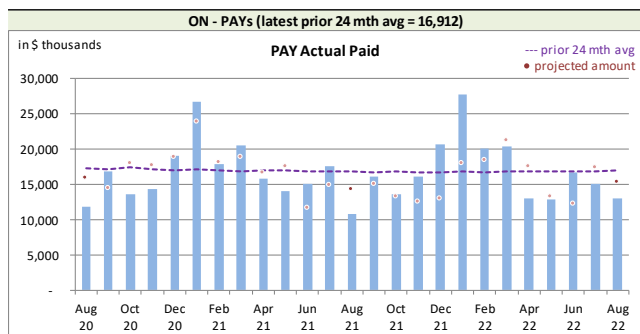
⁹Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected LR x earned 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.

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

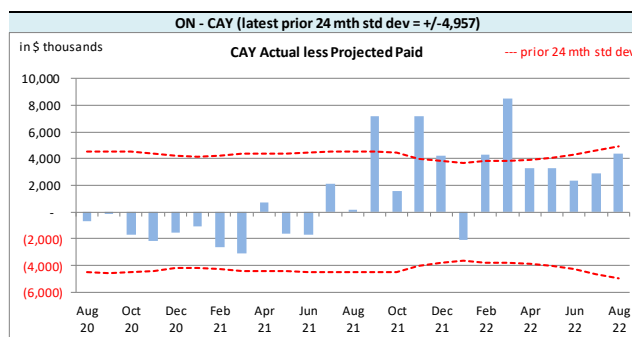
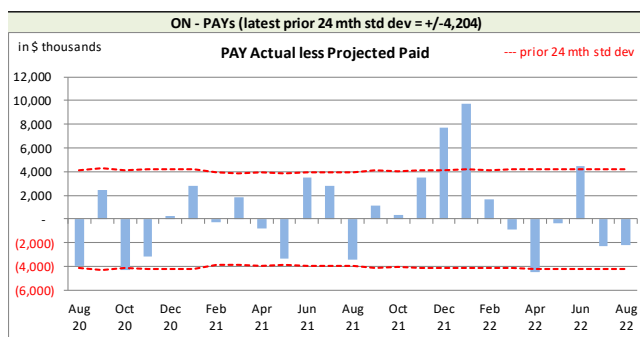
The following charts show actual **paid** activity in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

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)		16,912	12,102
std dev		4,204	4,957
A-P <> std dev		5	5
% <> std dev		20.0%	20.0%
norm <> std dev		31.7%	31.7%
performance vs 24-mth avg:		better	better

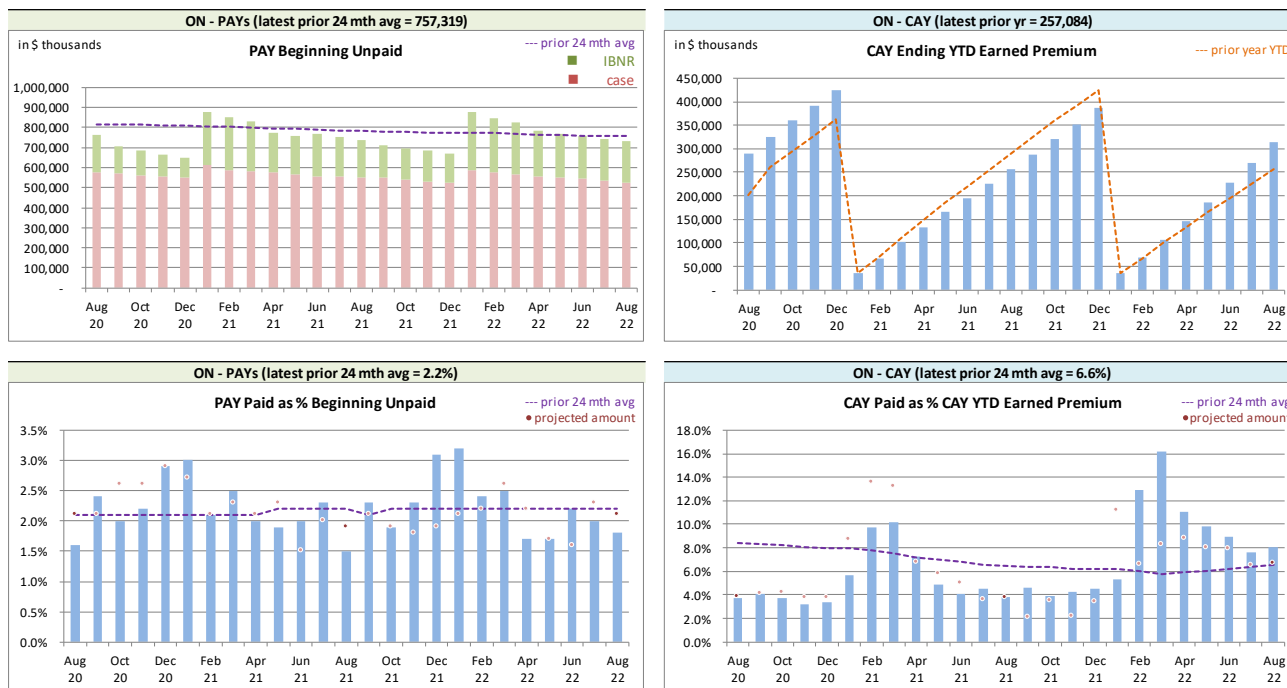
With respect to **paid** indemnity & allowed claims expense, 20% of the prior accident years’ (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **paid** amounts (see table on left), suggesting the projection process has performed better than 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 (13 of 25 variances are positive).

The current accident year (CAY) **paid** variances fell outside of one standard deviation 20% of the time

over the last 25 calendar months (preceding table 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 (14 of 25 variances are positive).

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

Ontario RSP Levels that influence¹⁰ 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 each month's

¹⁰Our 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.

IBNR¹¹, 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.

Exhibit G shows the accident year IBNR amount change from the prior valuation implementation month broken down into:

- (i) the change in projections;
- (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)

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 loss¹² 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 expenses¹³, 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 115.3% rather than 115.4% (the valuation ultimate ratio for accident year 2022), 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.)

¹¹For ease of discussion, “IBNR” is used in place of “provisions for incurred but not recorded (IBNR) and development”.

¹²“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).

¹³Allowed 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	(45,013)	(14.3%)	(80,850)	(25.8%)	(125,863)	(40.1%)	(60,163)	(16.1%)
CAY	361,889	115.3%	19,282	6.1%	381,171	121.5%	26,748	(7.7%)
TOTAL	316,876	101.0%	(61,568)	(19.6%)	255,308	81.4%	(33,414)	(23.9%)

("% EP" based on 2022 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, and the impact of valuation implementation.

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, and the impact of valuation implementation.

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 Jul. 2022	Actual Aug. 2022	Projected Sep. 2022	Projected Oct. 2022	Projected Nov. 2022	Projected Dec. 2022	Projected Jan. 2023	Projected Dec. 2022
	prior	9,690	5,333	5,389	5,300	5,334	5,405	8,839	5,405
	2003	24	23	23	23	23	24	24	24
	2004	(53)	12	12	11	11	11	21	11
	2005	(43)	(43)	(43)	(42)	(42)	(42)	(42)	(42)
	2006	(56)	46	47	45	46	46	75	46
	2007	682	(79)	(78)	(76)	(77)	(74)	(64)	(74)
	2008	(173)	(185)	(183)	(178)	(176)	(174)	(170)	(174)
	2009	73	27	27	27	29	28	47	28
	2010	10	137	139	137	137	138	162	138
	2011	69	(280)	(273)	(267)	(263)	(256)	(386)	(256)
	2012	595	(160)	(154)	(149)	(144)	(136)	(21)	(136)
	2013	311	11	13	15	17	21	(416)	21
	2014	(188)	(986)	(978)	(960)	(953)	(948)	(1,562)	(948)
	2015	2,257	(128)	(136)	(135)	(141)	(151)	(564)	(151)
	2016	3,321	2,767	2,716	2,656	2,611	2,560	2,304	2,560
discount rate 3.17%	2017	1,610	(3,353)	(3,351)	(3,287)	(3,280)	(3,282)	(3,403)	(3,282)
	2018	9,161	4,263	4,148	4,016	3,822	3,676	3,766	3,676
	2019	32,028	21,534	20,786	19,965	19,063	18,196	18,192	18,196
interest rate margin 25 basis pts	2020	72,253	61,849	59,579	57,365	54,727	52,167	50,709	52,167
	2021	132,356	103,884	101,074	97,756	94,635	90,847	89,213	90,847
	2022	190,968	181,611	207,424	235,180	261,260	287,806	273,985	287,806
	TOTAL	454,895	376,283	396,181	417,402	436,639	455,862	491,790	455,862
	Change		(78,612)	19,898	21,221	19,237	19,223	35,928	

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

EXHIBIT B

IBNR

TABLE EXHIBIT B

	Amounts in \$000s								
Ultimate Loss Ratio	Accident Year	Actual Jul. 2022	Actual Aug. 2022	Projected Sep. 2022	Projected Oct. 2022	Projected Nov. 2022	Projected Dec. 2022	Projected Jan. 2023	Projected Dec. 2022
-	prior	13,718	12,512	12,387	12,128	12,006	11,885	11,766	11,885
90.4%	2003	23	23	23	23	23	23	23	23
77.6%	2004	(85)	2	2	2	2	2	2	2
73.4%	2005	(43)	(43)	(43)	(42)	(42)	(42)	(42)	(42)
100.2%	2006	(76)	88	87	85	84	83	82	83
99.9%	2007	680	(46)	(46)	(45)	(45)	(45)	(45)	(45)
120.2%	2008	(172)	(172)	(170)	(166)	(164)	(162)	(160)	(162)
154.0%	2009	92	93	92	90	89	88	87	88
150.9%	2010	61	308	305	299	296	293	290	293
86.5%	2011	80	(90)	(89)	(87)	(86)	(85)	(84)	(85)
83.2%	2012	710	138	137	134	133	132	131	132
93.1%	2013	159	216	214	210	208	206	204	206
98.4%	2014	(1,016)	(1,177)	(1,165)	(1,141)	(1,130)	(1,119)	(1,108)	(1,119)
106.5%	2015	1,085	(750)	(742)	(726)	(719)	(712)	(705)	(712)
117.3%	2016	1,077	1,351	1,337	1,309	1,296	1,283	1,270	1,283
105.1%	2017	(1,543)	(5,349)	(5,296)	(5,185)	(5,133)	(5,082)	(5,031)	(5,082)
116.4%	2018	1,580	771	763	737	658	651	644	651
107.7%	2019	20,676	15,634	15,009	14,409	13,689	13,005	12,446	13,005
75.3%	2020	57,323	53,311	51,179	49,132	46,675	44,341	42,124	44,341
85.1%	2021	109,389	91,496	88,934	85,821	82,903	79,338	76,085	79,338
115.4%	2022	166,021	162,329	185,587	210,600	234,101	258,145	245,238	258,145
	TOTAL	369,739	330,645	348,505	367,587	384,844	402,228	430,107	402,228
	Change		(39,094)	17,860	19,082	17,257	17,384	27,879	

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 Jul. 2022	Actual Aug. 2022	Projected Sep. 2022	Projected Oct. 2022	Projected Nov. 2022	Projected Dec. 2022	Projected Jan. 2023	Projected Dec. 2022
(1) unearned premium (UP)	259,479	263,212	275,024	279,528	279,271	273,796	269,847	273,796
FOR MEMBER SHARING								
(2) expected future costs ratio {% of (1)}	132.9%	125.7%	126.6%	127.5%	128.5%	129.5%	129.6%	129.5%
(3) expected future costs {(1) x (2)}	344,771	330,954	348,131	356,428	358,837	354,693	349,670	354,693
(4) premium deficiency / (deferred policy acquisition cost)	85,292	67,742	73,107	76,900	79,566	80,897	79,823	80,897
Excluding Actuarial Present Value Adjustments								
(5) expected future costs ratio {% of (1)}	123.1%	118.6%	119.4%	120.3%	121.2%	122.2%	122.3%	122.2%
(6) expected future costs {(1) x (5)}	319,291	312,238	328,442	336,270	338,544	334,633	329,896	334,633
(7) premium deficiency / (deferred policy acquisition cost)	59,812	49,026	53,418	56,742	59,273	60,837	60,049	60,837

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2022, broken down by component.

Ontario	Projected Balances as at Dec. 31, 2022 (\$000s)									
ending 2022	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	26,321	11,885	38,206	(9,971)	661	3,827	(997)	2,830	(6,480)	31,726
2003	(4)	23	19	(1)	-	2	-	2	1	20
2004	949	2	951	(84)	6	95	(8)	87	9	960
2005	40	(42)	(2)	-	-	-	-	-	-	(2)
2006	1,479	83	1,562	(188)	14	156	(19)	137	(37)	1,525
2007	805	(45)	760	(102)	7	76	(10)	66	(29)	731
2008	423	(162)	261	(37)	3	26	(4)	22	(12)	249
2009	832	88	920	(147)	10	92	(15)	77	(60)	860
2010	1,730	293	2,023	(346)	24	202	(35)	167	(155)	1,868
2011	4,148	(85)	4,063	(559)	38	406	(56)	350	(171)	3,892
2012	3,575	132	3,707	(619)	42	371	(62)	309	(268)	3,439
2013	8,538	206	8,744	(1,027)	71	874	(103)	771	(185)	8,559
2014	23,033	(1,119)	21,914	(1,958)	134	2,191	(196)	1,995	171	22,085
2015	19,148	(712)	18,436	(1,246)	88	1,844	(125)	1,719	561	18,997
2016	33,623	1,283	34,906	(2,148)	154	3,486	(215)	3,271	1,277	36,183
2017	50,754	(5,082)	45,672	(2,682)	194	4,556	(268)	4,288	1,800	47,472
2018	80,165	651	80,816	(4,914)	358	8,072	(491)	7,581	3,025	83,841
2019	84,652	13,005	97,657	(6,623)	482	12,156	(824)	11,332	5,191	102,848
2020	71,173	44,341	115,514	(8,693)	632	17,180	(1,293)	15,887	7,826	123,340
2021	67,897	79,338	147,235	(12,706)	921	25,494	(2,200)	23,294	11,509	158,744
PAYs (sub-total):	479,281	144,083	623,364	(54,051)	3,839	81,106	(6,921)	74,185	23,973	647,337
CAY (2022)	101,013	258,145	359,158	(30,689)	2,214	63,568	(5,432)	58,136	29,661	388,819
claims liabilities:	580,294	402,228	982,522	(84,740)	6,053	144,674	(12,353)	132,321	53,634	1,036,156
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*
premium liabilities:	273,796	60,837	334,633	(21,991)	1,587	43,316	(2,852)	40,464	20,060	354,693
*Total may not be sum of parts, as apvs apply to future costs within UPR										
policy liabilities:			1,317,155	(106,731)	7,640	187,990	(15,205)	172,785	73,694	1,390,849

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, 2022 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Selected Claims Development MfADs				
Accident Year	Third Party Liability	Accident Benefits	Other Coverages	Total
	Margins	Margins	Margins	Margins
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%	10.0%	10.0%
2015	10.0%	10.0%	10.0%	10.0%
2016	10.0%	10.0%	9.2%	10.0%
2017	10.0%	10.0%	7.4%	10.0%
2018	10.0%	10.0%	9.6%	10.0%
2019	12.5%	12.5%	9.9%	12.4%
2020	14.9%	15.0%	11.1%	14.9%
2021	17.3%	17.5%	11.8%	17.3%
2022	17.6%	20.0%	5.8%	17.7%
2023	13.2%	20.0%	5.3%	13.0%
prem liab	13.2%	20.0%	5.3%	13.0%

discount rate: 3.17%
margin (basis points): 25

*prem liabilities as at 2022m06

EXHIBIT F

Interest Rate Sensitivity

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2022 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2022, and are based on more up-to-date information). We have included the most recent valuation selection (3.17%), the prior valuation assumption (2.25%) and the prior fiscal year end valuation assumption (0.26%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2022 projected Unpaid								
AY	2.17%	2.67%	3.17%	3.67%	4.17%	4.67%	2.25%	0.88%
2005 & prior	39,210	37,410	35,708	34,099	32,578	31,138	38,915	44,358
2005	39	38	38	37	37	36	39	41
2006	1,645	1,613	1,581	1,551	1,521	1,493	1,640	1,734
2007	885	866	847	828	811	793	882	939
2008	349	340	333	325	318	311	347	371
2009	1,005	978	952	928	904	881	1,000	1,079
2010	2,025	1,967	1,912	1,859	1,808	1,759	2,016	2,187
2011	4,197	4,103	4,013	3,927	3,846	3,767	4,181	4,461
2012	3,761	3,657	3,558	3,463	3,373	3,288	3,744	4,055
2013	7,754	7,608	7,468	7,335	7,207	7,084	7,730	8,165
2014	19,225	18,955	18,697	18,450	18,215	17,989	19,181	19,984
2015	17,103	16,922	16,747	16,579	16,417	16,260	17,074	17,604
2016	33,583	33,258	32,943	32,638	32,341	32,054	33,531	34,473
2017	45,314	44,894	44,485	44,088	43,701	43,324	45,246	46,455
2018	86,868	86,031	85,215	84,420	83,645	82,888	86,733	89,135
2019	104,701	103,571	102,470	101,397	100,352	99,332	104,518	107,763
2020	124,190	122,696	121,242	119,826	118,447	117,103	123,948	128,241
2021	163,947	161,671	159,458	157,305	155,210	153,170	163,579	170,132
2022	341,352	336,592	331,970	327,482	323,122	318,883	340,581	354,322
Total	997,115	983,131	969,600	956,502	943,814	931,519	994,846	1,035,460
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

Dollar Impact Relative to Valuation Assumption								
AY	2.17%	2.67%	3.17%	3.67%	4.17%	4.67%	2.25%	0.88%
Total	27,514	13,530	-	(13,099)	(25,786)	(38,081)	25,245	65,859
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

Percentage Impact Relative to Valuation Assumption								
AY	2.17%	2.67%	3.17%	3.67%	4.17%	4.67%	2.23%	0.81%
2005 & prior	9.8%	4.8%	0.0%	-4.5%	-8.8%	-12.8%	9.0%	24.2%
2005	3.4%	1.7%	0.0%	-1.6%	-3.2%	-4.7%	3.1%	8.0%
2006	4.1%	2.0%	0.0%	-1.9%	-3.8%	-5.6%	3.7%	9.7%
2007	4.6%	2.2%	0.0%	-2.2%	-4.3%	-6.3%	4.2%	11.0%
2008	4.8%	2.3%	0.0%	-2.3%	-4.5%	-6.6%	4.4%	11.5%
2009	5.5%	2.7%	0.0%	-2.6%	-5.1%	-7.5%	5.0%	13.3%
2010	5.9%	2.9%	0.0%	-2.8%	-5.4%	-8.0%	5.4%	14.4%
2011	4.6%	2.2%	0.0%	-2.1%	-4.2%	-6.1%	4.2%	11.2%
2012	5.7%	2.8%	0.0%	-2.7%	-5.2%	-7.6%	5.2%	14.0%
2013	3.8%	1.9%	0.0%	-1.8%	-3.5%	-5.1%	3.5%	9.3%
2014	2.8%	1.4%	0.0%	-1.3%	-2.6%	-3.8%	2.6%	6.9%
2015	2.1%	1.0%	0.0%	-1.0%	-2.0%	-2.9%	1.9%	5.1%
2016	1.9%	1.0%	0.0%	-0.9%	-1.8%	-2.7%	1.8%	4.6%
2017	1.9%	0.9%	0.0%	-0.9%	-1.8%	-2.6%	1.7%	4.4%
2018	1.9%	1.0%	0.0%	-0.9%	-1.8%	-2.7%	1.8%	4.6%
2019	2.2%	1.1%	0.0%	-1.0%	-2.1%	-3.1%	2.0%	5.2%
2020	2.4%	1.2%	0.0%	-1.2%	-2.3%	-3.4%	2.2%	5.8%
2021	2.8%	1.4%	0.0%	-1.4%	-2.7%	-3.9%	2.6%	6.7%
2022	2.8%	1.4%	0.0%	-1.4%	-2.7%	-3.9%	2.6%	6.7%
2023	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	2.8%	1.4%	0.0%	-1.4%	-2.7%	-3.9%	2.6%	6.8%
	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
(June 2022 to August 2022)

RSP Ontario

AccountCode Desc IBNR - Discounted

M/S IBNR - in \$000s

AccYear	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	Sum of Current Month Final Amount
prior	9,719	(824)	(394)	(3,168)	(4,386)	(45.1%)	5,333
2003	24	(2)	2	(1)	(1)	(4.2%)	23
2004	(52)	5	(85)	144	64	(123.1%)	12
2005	(43)	3	(3)	-	-	-	(43)
2006	(23)	1	(35)	103	69	(300.0%)	46
2007	27	(31)	684	(759)	(106)	(392.6%)	(79)
2008	(172)	15	(16)	(12)	(13)	7.6%	(185)
2009	74	(7)	8	(48)	(47)	(63.5%)	27
2010	180	(8)	78	(113)	(43)	(23.9%)	137
2011	119	(6)	(214)	(179)	(399)	(335.3%)	(280)
2012	34	(27)	622	(789)	(194)	(570.6%)	(160)
2013	180	(18)	204	(355)	(169)	(93.9%)	11
2014	(301)	26	(633)	(78)	(685)	227.6%	(986)
2015	1,559	(146)	807	(2,348)	(1,687)	(108.2%)	(128)
2016	1,282	(158)	2,656	(1,013)	1,485	115.8%	2,767
2017	2,547	(142)	(1,317)	(4,441)	(5,900)	(231.6%)	(3,353)
2018	11,001	(900)	(2,286)	(3,552)	(6,738)	(61.2%)	4,263
2019	36,337	(3,109)	(3,978)	(7,716)	(14,803)	(40.7%)	21,534
2020	74,671	(7,188)	2,217	(7,851)	(12,822)	(17.2%)	61,849
2021	136,410	(15,560)	5,921	(22,887)	(32,526)	(23.8%)	103,884
2022	141,793	84,291	(15,043)	(29,430)	39,818	28.1%	181,611
Grand Total	415,366	56,215	(10,805)	(84,493)	(39,083)	(9.4%)	376,283

EXHIBIT G

Page 2 of 2

Components of IBNR (i.e. “Undiscounted”) Change
(June 2022 to August 2022)

RSP Ontario

AccountCode Desc IBNR - Undiscounted

IBNR - in \$000s

AccYear	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	Sum of Current Month Final Amount
prior	13,758	(1,096)	(150)	-	(1,246)	(9.1%)	12,512
2003	23	(2)	2	-	-	-	23
2004	(84)	7	(87)	166	86	(102.4%)	2
2005	(43)	3	(3)	-	-	-	(43)
2006	(43)	5	(38)	164	131	(304.7%)	88
2007	25	(33)	686	(724)	(71)	(284.0%)	(46)
2008	(171)	14	(15)	-	(1)	0.6%	(172)
2009	92	(7)	8	-	1	1.1%	93
2010	237	(12)	83	-	71	30.0%	308
2011	131	(8)	(213)	-	(221)	(168.7%)	(90)
2012	150	(38)	630	(604)	(12)	(8.0%)	138
2013	25	(8)	199	-	191	764.0%	216
2014	(1,165)	85	(639)	542	(12)	1.0%	(1,177)
2015	300	(61)	849	(1,838)	(1,050)	(350.0%)	(750)
2016	(1,035)	4	2,651	(269)	2,386	(230.5%)	1,351
2017	(862)	89	(1,216)	(3,360)	(4,487)	520.5%	(5,349)
2018	2,908	(314)	(2,172)	349	(2,137)	(73.5%)	771
2019	24,436	(2,488)	(3,791)	(2,523)	(8,802)	(36.0%)	15,634
2020	59,630	(6,398)	1,781	(1,702)	(6,319)	(10.6%)	53,311
2021	112,799	(14,399)	6,083	(12,987)	(21,303)	(18.9%)	91,496
2022	123,576	74,015	(14,565)	(20,697)	38,753	31.4%	162,329
Grand Total	334,687	49,358	(9,917)	(43,483)	(4,042)	(1.2%)	330,645